

APPENDIX B-8H

STANDARD TERMS AND CONDITIONS
FOR

COMMERCIAL ITEMS
(GOODS AND SERVICES)

SUBCONTRACTS AND PURCHASE ORDERS

FIRM FIXED-PRICE
FIXED UNIT-PRICE LEVEL OF EFFORT
LABOR HOUR
TIME AND MATERIALS

January 23, 2023

Subcontractor is hereby on notice that the contracting party to this subcontract is the Alliance for Sustainable Energy, LLC, in its capacity as the Managing and Operating Contractor for the National Renewable Energy Laboratory (NREL) under U.S. Department No. DE-AC36-08GO28308.

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Standard Terms and Conditions for Commercial Items (Goods and Services)
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Firm Fixed-Price, Fixed Unit-Price Level of Effort, Labor Hour and Time and Materials

FAR/DEAR or NREL Reference	Title	FD ("X"= required where applicable)	Threshold	Date/Req'd Version
08.100-01	Subcontract Issues and Disputes	Yes	All	
08.100-02	Security and Access Requirements	Yes	All	
08.100-04	Lobbying Restrictions (Energy & Water Act)	Yes	All	2007
08.100-05	Subcontractor Acceptance of Notices of Violation or Alleged Violations, Fines, and Penalties	Yes	All	
08.100-06	Subcontractor Quality Representations	Yes	All	May 2009
09.100-02	Worker Safety and Health Requirements	Yes	All	Mar-2020
52.203-06	Restrictions on Subcontractor Sales to the Government	X	>SAT	Sep 2006
52.203-17	Contractor Employee Whistleblower Rights and Requirement to Inform Employees of Whistleblower Rights	X	>SAT	Apr 2014
52.204-04	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper	Yes	>SAT	May 2011
52.204-07	System for Award Management	Yes	All	Current FAR Oct 2018
52.204-13	System for Award Management Maintenance	Yes	All	Current FAR Oct 2018
52.212-04	Contract Terms and Conditions - Commercial Items	Yes	All	Oct 2018
52.215-19	Notification of Ownership Changes	X	All	Oct 1997
52.215-23	Limitations on Pass-Through Charges	X	>SAT	Oct 2009
52.222-02	Payment for Overtime Premiums	Yes	>SAT	July 1990
52.222-03	Convict Labor	Yes	All	Jun 2003
52.222-20	Contracts for Materials, Supplies, Articles and Equipment Exceeding \$15,000 (formerly Walsh Healey)	Yes	>\$15K	May 2014
52.222-54	Employment Eligibility Verification	X	>\$3.5K	Oct 2015
52.223-02	Affirm Procurement of Biobased Products under Service and Construction Contracts	Yes	All	Sep 2013

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52.223-10	Waste Reduction Program	Yes	All	May 2011
52.223-11	Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons	Yes	All	Jun-16
52.223-12	Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners	Yes	All	Jun-16
52.223-13	Acquisition of EPEAT®-Registered Imaging Equipment	Yes	All	Jun 2014
52.223-14	Acquisition of EPEAT®-Registered Televisions	Yes	All	Jun 2014
52.223-15	Energy Efficiency in Energy-Consuming Products	X	All	Dec 2007
52.223-16	Acquisition of EPEAT®-Registered Personal Computer Products - Alternate I	Yes	All	Oct 2015/Jun 2014
52.223-17	Affirm Procurement of EPA-designated Items in Service and Construction Contracts	Yes	All	Aug 2018
52.223-18	Encouraging Contractor Policies to Ban Text Messaging while Driving	X	>mpt	Aug 2011
52.225-01	Buy American - Supplies	Yes	All	May 2014
52.225-08	Duty-Free Entry	X	>SAT	Oct 2010
52.225-13	Restriction on Certain Foreign Purchases	X	All	Jun 2008
52.228-05	Insurance - Work on a Government Installation and Alt I - Architect/Engineer Subcontracts	Yes	All	Jan 1997
52.232-20	Limitation of Cost	Yes	All	Apr 1984
52.232-22	Limitation of Funds	Yes	All	Apr 1984
52.232-24	Prohibition of Assignment of Claims	Yes	All	May 2014
52.232-33	Payment by Electronic Funds Transfer - System for Award Management	Yes	All	Jul 2013

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52.232-39	Unenforceability of Unauthorized Obligations	Yes	All	Jun 2013
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	X	All	Dec 2013
52.236-09	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	Yes	All	Apr 1984
52.237-02	Protection of Government Buildings, Equipment, and Vegetation	Yes	All	Apr 1984
52.242-01	Notice of Intent to Disallow Costs	Yes	All	Apr 1984
52.242-13	Bankruptcy	Yes	>SAT	Jul 1995
52.242-14	Suspension of Work	Yes	All	Apr 1984
52.242-15	Stop Work Order - Cost-Reimbursement - Alternate	Yes	All	Aug 1989
52.242-15	Stop Work Order - Commercial Items	Yes	All	Aug 1989
52.243-03	Changes - Time-and-Materials or Labor-Hours	Yes	All	Sep 2000
52.244-02	Subcontracts - Alternate I	Yes	All	Oct 2010/ June 2007
52.244-06	Subcontracts for Commercial Items	X	All	Nov 2017
52.246-06	Inspection - Time-and-Materials and Labor-Hour and Alt I	Yes	All	May 2001
52.247-01	Commercial Bill of Lading Notations	Yes	All	Feb 2006
52.247-67	Submission of Transportation Documents for Audit	Yes	All	Feb 2006
52.249-06	Termination Alt. IV (Time and Material and Labor Hour).	Yes	All	
52.249-14	Excusable Delays	Yes	All	

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952.203-70	Whistleblower Protection for Contractor Employees	X	All	Dec 2000
952.204-71	Sensitive Foreign Nations Controls (Re: Classified Info or SNM)	X	All	Mar 2011
952.204-75	Public Affairs	Yes	All	Dec 2000
952.204-77	Computer Security	X	All	Aug 2006
952.247-70	Foreign Travel	X	All	Most Current
970.5204-3	Access to and Ownership of Records (Deviation)	X	All	Oct 2014
970.5208-1	Printing	X	All	Dec 2000
970.5223-1	Integration of Environment, Safety, and Health into Work Planning and Execution	X	All	Dec 2000
970.5223-7	Sustainable Acquisition Program	X	>SAT	Oct 2010
970.5225-1	Compliance with Export Control Laws and Regulations	X	All	Nov 2015
970.5232-3	Accounts, Records, and Inspection - Alternate I	X	All	Clause Dec 2010; Alt Dec 2000
970.5242-1	Penalties for Unallowable Costs	Yes	All	
970.5245-1	Property - Alternate I	X	All	Aug 2016
N/A	General Requirements		All	Oct 2021
N/A	General Requirements for University Affiliates		All	Oct 2021
N/A	Data Protection		All	Oct 2021
N/A	Data Protection for University Affiliates		All	Oct 2021
N/A	Commercial Products		All	Oct 2021
N/A	Application Security		All	Oct 2021

N/A	System Design and Implementation		All	Oct 2021
N/A	Cloud, Hosted, or Outsourced Systems and Related Services		All	Oct 2021
N/A	Subcontractor Network Access and Subcontractor Employee Criminal Background Checks and Drug Testing		All	Feb 2022
N/A	University Affiliate Network Access and Affiliate Criminal Background Checks and Drug Testing		All	Aug 2021
N/A	Custodianship of Sensitive NREL Data		All	Oct 2021
N/A	Cardholder Data Environments		All	Aug 2021

SUBCONTRACT ISSUES AND DISPUTES (SPECIAL) (SEP 2007)

Derived from NREL 08.100-01

(Applies to all subcontracts.)

- (a) It is NREL's practice to try to resolve all contractual issues by mutual agreement at the NREL Subcontract Administrator's level, without litigation. Both parties hereby agree to explore all reasonable avenues for negotiations in order to avoid a dispute. Either party may provide written notice to the other party to conduct negotiations for a period not to exceed sixty (60) calendar days. After sixty calendar days, if possibilities for negotiations have failed, either party shall have thirty (30) calendar days to request that the potential dispute be moved to Alternative Dispute Resolution (ADR). Within fifteen (15) calendar days after receiving a request to move to ADR, if ADR procedures are not acceptable to the non-moving party, a written explanation citing specific reasons for rejecting ADR as inappropriate for resolution of the dispute shall be provided to the moving party. If the parties are unable to agree on the application of ADR procedures to resolve the potential dispute or are unable to satisfactorily resolve the dispute using ADR procedures for a period not to exceed ninety (90) calendar days (or such longer period as mutually agreed in writing), the parties shall resume the formal process authorized in this clause.
- (b) The parties agree that the appropriate forum for litigation of any dispute pertaining to this subcontract shall be a court of competent jurisdiction as follows:
 - (1) Subject to paragraph (b) (2) of this clause, any such litigation shall be brought and prosecuted exclusively in Federal District Court; with venue in the United States District Court of Colorado in Denver, Colorado.
 - (2) Provided, however, that in the event the requirements for jurisdiction in any Federal District Court are not present, such litigation shall be brought in a court of competent jurisdiction in the county of Jefferson and State of Colorado.
- (c) Any substantive issue of law in such litigation shall be determined in accordance with the body of applicable Federal law relating to the interpretation and application of clauses derived from Federal Acquisition Regulation (FAR) and the Department of Energy Acquisition Regulation that implement and supplement the FAR. If there is no applicable Federal law, the law of the State of Colorado shall apply in the determination of such issues. Conflict of law provisions shall not determine applicable governing law. Nothing in this clause shall grant the Subcontractor by implication any statutory rights or remedies not expressly set forth in this subcontract.
- (d) There shall be no interruption in the prosecution of the work, and the Subcontractor shall proceed diligently with the performance of this subcontract pending final resolution of any contractual issues, disputes, or litigation arising under or related to this subcontract between the parties hereto or between the Subcontractor and lower-tier Subcontractors or suppliers.
- (e) The Contract Disputes Act of 1978 (41 U.S.C. Sections 601-613) shall not apply to this subcontract; provided, however, that nothing in this clause shall prohibit NREL, in its sole discretion, from sponsoring a dispute of the Subcontractor for resolution under the provision of its prime contract with DOE. In the event that NREL so sponsors a dispute at the request of the Subcontractor, the Subcontractor shall be bound by the decision of the cognizant DOE Contracting Officer to the same extent and in the same manner as NREL.

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- (f) Any disputes relative to intellectual property matters will be governed by other provisions of this subcontract.

SECURITY AND ACCESS REQUIREMENTS (SPECIAL) (DEC 2018)

Derived from NREL 08.100-02

(Applies to all subcontracts where the Subcontractor or lower-tier Subcontractors, and their employees, officers, agents, or other persons representing the Subcontractor, will perform work on NREL-operated facilities or government-owned or -leased properties.)

- (a) Security requirements.
 - (1) NREL has established security requirements to govern access onto NREL operated facilities or government-owned or -leased properties (here after “NREL operated facilities”) by the Subcontractor’s employees (and its lower-tier Subcontractors’ employees), officers, agents, and any other persons representing the Subcontractor.
 - (i) The introduction of certain “controlled” commodities and/or activities on the NREL operated facilities is prohibited. Prohibited articles include firearms, explosive devices, incendiary devices, dangerous weapons or materials, controlled substances (illegal drugs), alcoholic beverages, and livestock. NREL operated facilities and DOE-owned or -leased property are closed to all hunting.
 - (2) As a condition of entry to NREL operated facilities, the Subcontractor agrees to permit NREL Security personnel to search the Subcontractor’s employees (and its lower-tier Subcontractors’ employees) and their officers and agents’ vehicles, packages, tool boxes, or other containers for the purpose of preventing prohibited articles to be brought onto NREL operated facilities or to detect or deter the unauthorized removal of Government property from NREL operated facilities.
 - (3) The Subcontractor is solely responsible for the security of the Subcontractor’s employees (and its lower-tier Subcontractors’ employees) and their officers and agents’ materials and equipment at the NREL operated facilities. Any security system the Subcontractor may elect to use (fences, keys, alarms, etc.) must be coordinated with the NREL Technical Monitor.
 - (4) The Subcontractor is responsible to advise the NREL Technical Monitor promptly of any non-routine events, occurrences, incidents, accidents, etc., particularly in situations involving lost-time accidents and ambulance runs, occurring under this subcontract.
 - (5) NREL Security reserves the right to revoke site access authorization for any person violating NREL or DOE security policies and procedures.
- (b) Access requirements for U.S. citizens.
 - (1) Access to NREL operated facilities is controlled in accordance with DOE’s security requirements. The Subcontractor shall ensure that any of the Subcontractor’s employees (and its lower-tier Subcontractors’ employees) and their officers and agents who will enter onto the NREL operated facilities are specifically authorized site access under the NREL requirements set forth in the NREL Access Control Policy and Program, including identification, badging, and registration by NREL Security. A two-week advance notice to NREL Security processed through the NREL Subcontract Administrator is required prior to access by U.S. citizens.
- (c) Access requirements for persons who are not U.S. citizens.
 - (1) The Subcontractor shall ensure that any of the Subcontractor’s employees (or its lower-tier Subcontractors’ employees), officers, and agents who will enter onto NREL operated facilities and who are not U.S. citizens meet the

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- requirements set forth in NREL's Foreign National Management Policy and Program, including: (a) appropriate work authorization documentation (i.e. Visa); (b) completion of an NREL Foreign National Data Card; and (c) NREL Manager-level approval.
- (2) Foreign Nationals from DOE-designated "Sensitive Countries" will be processed for a federal background check. This process requires a minimum of 30 calendar days notification prior to visit or assignment. Foreign Nationals from DOE-designated "Terrorist Supporting Countries" will not be allowed. The Subcontractor should contact the NREL Subcontract Administrator to obtain the most current listing of "Sensitive Countries" and "Terrorist Supporting Countries."
- (ii) It is the Subcontractor's responsibility to obtain and provide all necessary information and documentation to meet NREL, DOE, and federal requirements regarding Subcontractors' employees (or its lower-tier Subcontractors' employees), officers', and agents' work authorization and identification to the NREL Technical Monitor and the NREL Subcontract Administrator to meet the appropriate time frames for NREL Security to process and approve the request for access. Any person(s) denied access by NREL Security or DOE shall not be assigned by the Subcontractor to enter onto or perform subcontract work at NREL operated facilities.
- (3) Prior to the initiation of a subcontract that requires entry onto NREL operated facilities, the Subcontractor shall provide to the NREL Subcontract Administrator advance notice and necessary evidence (including Visa types and expiration dates) that legally sufficient work permits have been obtained from the U.S. Citizenship and Immigration Services. Further, the Subcontractor is responsible to ensure that such permits are properly maintained for any of the Subcontractor's employees (and its lower-tier Subcontractors' employees) and their officers and agents who are not U.S. citizens for the duration of subcontract work at NREL operated facilities.
- (4) After the Subcontractor (and its lower-tier Subcontractors) has commenced work under the subcontract, the Subcontractor shall provide to the NREL Subcontract Administrator the same advance notice and necessary evidence (including Visa types and expiration dates) for all subsequently assigned individuals who are not U.S. citizens who will enter onto NREL operated facilities.
- (d) Access Requirements for all persons.
- (1) All persons entering NREL operated facilities must display a valid NREL- or DOE- issued identification badge. The Subcontractor is responsible to coordinate badge requirements for entrance onto NREL operated facilities for all the Subcontractor's employees (and lower-tier Subcontractors' employees) and their officers and agents to ensure the display and return of all issued badges.
- (2) The Subcontractor is responsible to coordinate with the NREL Technical Monitor all vehicle parking requirements needed to perform the subcontract work on the NREL operated facilities. Vehicle access by Subcontractors and other visitors to the NREL operated facilities is controlled on a 24-hour, 7-day per week basis.
- (3) The Subcontractor is cautioned that effective January 1, 2007, the Colorado Revised Statutes (CRS 8-2-122) require employers that transact business in Colorado to comply with employment verification requirements to affirm that

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the employer has examined the legal work status of newly-hired employees and has retained file copies of the documents required by the Federal Immigration Reform and Control Act (8 USC 1324a).

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LOBBYING RESTRICTIONS (ENERGY & WATER ACT) (SPECIAL) (2007)

Derived from NREL 08.100-04

(Applies to all subcontracts.)

The Subcontractor or awardee agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence Congressional action on any legislative 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.

SUBCONTRACTOR ACCEPTANCE OF NOTICES OF VIOLATION OR ALLEGED VIOLATIONS, FINES, AND PENALTIES (SPECIAL) (MAY 2003)

Derived from NREL 08.100-05

(Applies to all subcontracts.)

- (a) The Subcontractor shall immediately notify the NREL Subcontract Administrator of any notice the Subcontractor may receive including Notice of Violations (NOV) or Notice of Alleged Violations (NOAV) issued by federal, state, or local regulators associated with the operations of NREL and/or performance of work under the Subcontract.
- (b) When deemed appropriate by the NREL Subcontract Administrator, the Subcontractor shall conduct negotiations with regulators regarding NOV/NOAVs, fines and penalties, including, if the NREL Subcontract Administrator so requires, accepting NOV/NOAVs in its own name. The Subcontractor shall make no commitments or offers to regulators binding NREL/Government unless approved in advance and in writing by the NREL Subcontract Administrator. Failure to obtain such advance written approval may result in otherwise allowable costs being declared unallowable and/or the Subcontractor being liable for any excess costs to NREL/Government associated with or resulting from such offers/commitments.
- (c) The Subcontractor shall support and provide assistance to the NREL/Government concerning any matter arising under a NOV/NOAV.

SUBCONTRACTOR QUALITY REPRESENTATIONS (SPECIAL) (MAY 2009)

Derived from NREL 08.100-06

(Applies to all subcontracts, including construction subcontracts, where items or parts are supplied or delivered.)

- (a) New Materials. Unless otherwise specified in this subcontract, all items or parts supplied or delivered by the Subcontractor, or its lower-tier Subcontractors, shall consist of new materials. "New materials" means previously unused. The Subcontractor shall not deliver any item or part that is residual inventory resulting from terminated Government contracts/subcontracts or former Government surplus property.
- (b) Recycled or Recovered Materials. The requirement for supply or delivery of items or parts consisting of new materials does not exclude the delivery of recycled or recovered materials as defined by the Environmental Protection Agency in 40 CFR 247.
- (c) Used, Refurbished, or Rebuilt Items or Parts. In the event that items or parts consisting of new materials are not reasonably available to the Subcontractor, with prior NREL Subcontract Administrator written approval, the Subcontractor may supply or deliver either: used; or refurbished; or rebuilt items or parts that are not of such an age or so deteriorated as to impair their usefulness or safety and conform to government or industry-accepted specifications or national consensus standards.
- (d) Suspect or Counterfeit Items or Parts. "Suspect or counterfeit items or parts" mean (1) items or parts that may be of new manufacture but labeled to represent a different class of items or parts or (2) used and/or refurbished items or parts complete with false labeling, that are represented as new items or parts.
- (e) Indemnification of NREL/DOE. The Subcontractor shall indemnify NREL and the DOE, their officers, agents, and employees, and third parties for any financial loss, injury, or property damage resulting directly or indirectly from items or parts that are not genuine, original, and unused, or not otherwise suitable for the intended purpose. This includes, but is not limited to, items or parts that are defective, suspect, or counterfeit; items or parts that have been provided under false pretenses; and items or parts that are materially altered, damaged, deteriorated, degraded, or result in product failure.
- (f) Quality Representations. The Subcontractor represents that items and parts supplied or delivered under this Subcontract shall not include suspect or counterfeit items or parts nor shall counterfeit or suspect items or parts be used in performing any work under this Subcontract whether on or off the NREL operated facility. In the event that the Subcontractor or its lower-tier Subcontractors supplies or delivers suspect or counterfeit items or parts, such items or parts shall be impounded by NREL, or the Subcontractor shall remove the items or parts as directed by the NREL Subcontract Administrator. The Subcontractor shall promptly replace the counterfeit or suspect items or parts with supplies acceptable to NREL and the Subcontractor shall be liable for all costs relating to impoundment, removal, and replacement.
- (g) NREL Rights. The rights of NREL under this clause are in addition to any other rights provided by law or under this Subcontract and such rights shall survive the termination or natural completion of the period of performance of this Subcontract.

WORKER SAFETY AND HEALTH REQUIREMENTS (SPECIAL) (MAR 2020)

Derived from NREL 09.100-02

(Applies to all subcontracts where the Subcontractor or lower-tier Subcontractors, and their employees, officers, agents, or other persons representing the Subcontractor, will perform work on NREL-operated facilities or government-owned or -leased properties.)

- (a) **THE SUBCONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL WORK PERFORMED UNDER THIS SUBCONTRACT (INCLUSIVE OF LOWER-TIER SUBCONTRACTORS) IS PERFORMED IN ACCORDANCE WITH THE DEPARTMENT OF ENERGY'S "WORKER SAFETY AND HEALTH" RULE CODIFIED AT 10 CFR 851. THE SUBCONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH NREL'S DOE-APPROVED SAFETY MANAGEMENT SYSTEM, INCLUDING, BUT NOT LIMITED TO, THE MOST CURRENT REQUIREMENTS SET FORTH IN THE APPLICABLE NREL "SERVICE AND MAINTENANCE SUBCONTRACTOR ENVIRONMENT, SAFETY & HEALTH MANUAL" OR "CONSTRUCTION ENVIRONMENT HEALTH & SAFETY MANUAL," BOTH AVAILABLE AT [HTTPS://WWW.NREL.GOV/ABOUT/EHS.HTML](https://www.nrel.gov/about/ehs.html). THE SUBCONTRACTOR IS RESPONSIBLE FOR ENSURING ONGOING COMPLIANCE WITH ANY UPDATES AND/OR REVISIONS TO THE APPLICABLE NREL ENVIRONMENT, HEALTH & SAFETY MANUAL.**

THE SUBCONTRACTOR IS SUBJECT TO ALL APPLICABLE PROCEDURES FOR INVESTIGATING VIOLATIONS, ENFORCING COMPLIANCE WITH REQUIREMENTS, AND ASSESSING CIVIL PENALTIES OR FEE REDUCTIONS FOR VIOLATIONS UNDER DOE'S "WORKER SAFETY AND HEALTH" RULE. WHEN THESE "WORKER SAFETY AND HEALTH REQUIREMENTS" ARE MADE APPLICABLE TO THE WORK TO BE PERFORMED UNDER AN NREL SUBCONTRACT, THE SUBCONTRACTOR SHALL ALSO COMPLY WITH THE CLAUSE "INTEGRATION OF ENVIRONMENT, SAFETY, AND HEALTH INTO WORK PLANNING AND EXECUTION" (DEAR 970.5223-1).

- (b) The Subcontractor shall have a structured approach to its worker safety and health program that at a minimum meets the mandatory requirements specified in Appendix A of 10 CFR 851 for implementing any of the following functional areas applicable to the work to be performed: (1) construction safety; (2) fire protection; (3) firearms safety; (4) explosives safety; (5) pressure safety; (6) electrical safety; (7) industrial hygiene; (8) occupational medicine; (9) biological safety; and (10) motor vehicle safety.
- (c) The Subcontractor shall be responsible for full compliance (inclusive of its lower-tier Subcontractors) with all applicable worker safety and health standards of DOE and NREL to provide subcontract work that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers. The Subcontractor shall comply with all Safety and Health Standards applicable to the hazards of the work to be performed, including but not limited to: (a) 29 CFR 1904 Recording and Reporting Occupational Injuries and Illnesses; (b) 29 CFR 1910 Occupational Safety and Health Standards and ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices; (c) 29 CFR 1926 Safety and Health Regulations for Construction; (d) ANSI Z88.2 Respiratory Protection; (e) ANSI Z136.1 Safe Use of Lasers; (f) ANSI Z49.1 Welding, Cutting, and Allied Processes; (g) NFPA 70 National Electrical Code; and (h) NFPA 70E Standard for Electrical Safety in the Workplace. Nothing in this Paragraph (c) shall be construed as relieving the Subcontractor from complying with any additional specific safety and health requirements necessary to protect the safety and health of workers.

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- (d) In conforming to the worker safety and health requirements identified the Subcontractor shall provide at least worker safety and health supervision in the following areas: (1) management responsibilities; (2) worker rights and responsibilities; (3) hazard identification and assessment; (4) hazard prevention and abatement; (5) training and information; and (6) recordkeeping and reporting.
- (e) NREL may inspect the Subcontractor's operation as work proceeds, from time to time, for compliance with worker safety and health requirements contained in this subcontract. The NREL Subcontract Administrator shall direct the Subcontractor to make the necessary corrections commensurate with deficiencies found. The Subcontractor shall make these corrections at no additional expense to NREL. The Subcontractor shall participate in NREL's fact-finding investigations of accidents, injuries, occurrences, and near-misses. The Subcontractor shall participate in fact-finding investigations at no additional expense to NREL. The Subcontractor shall remove from the work site any employee that NREL identifies in writing as unsafe, incompetent, careless, or otherwise objectionable. The Subcontractor shall replace the removed employee at no additional expense to NREL. Any NREL representatives, NREL Subcontractors, or DOE representatives, including but not limited to the NREL Technical Monitor or Project Manager, the DOE Federal Project Director, the NREL Subcontract Administrator and NREL and DOE EHSS&Q representatives have authority to stop work if unsafe conditions exist. The Subcontractor shall not be entitled to an extension of time or additional fee or damages by reason of or in connection with any unsafe conditions work stoppage. The Subcontractor's violation, refusal, or failure to abate violations, or applicable deficiencies may be justification for subcontract termination in accordance with the termination or default clauses of the subcontract terms and conditions.
- (f) The Subcontractor shall complete and post the Form DOE-F-5480.4 at the work site. The Subcontractor shall make available Form DOE-F-5480.4, "[Sub]Contractor Employee Occupational Safety or Health Complaint" to its employees. The Subcontractor shall maintain specific records and submit the information covering experience of both its direct employees and that of its lower-tier Subcontractors. The Subcontractor shall immediately provide to the NREL Technical Monitor or Project Manager and the NREL Subcontract Administrator notification of any injury or property damage incident and provide sufficient information necessary for NREL to complete DOE-F-5484.3 "The Individual Accident/Incident Report." Such information shall be submitted, as appropriate, for any period of time prior to final payment and closeout of this subcontract.

**RESTRICTIONS ON LOWER-TIER SUBCONTRACTOR SALES TO NREL/GOVERNMENT
(OCT 2011)**

Derived from FAR 52.203-6 (SEP 2006) (FD)

(Applies to all subcontracts exceeding \$150,000.)

- (a) Except as provided in (b) of this clause, the Subcontractor shall not enter into any agreement with an actual or prospective lower-tier Subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such lower-tier Subcontractors directly to NREL/Government of any item or process (including computer software) made or furnished by the lower-tier Subcontractor under this subcontract or under any follow-on production subcontract.
- (b) The prohibition in (a) of this clause does not preclude the Subcontractor from asserting rights that are otherwise authorized by law or regulation.
- (c) The Subcontractor agrees to incorporate the substance of this clause, including this paragraph (c), in all lower-tier subcontracts under this subcontract which exceed the simplified acquisition threshold.

SUBCONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (APR 2014)

Derived from FAR 52.203-17 (APR 2014)

Applies to all subcontracts over the Simplified Acquisition Threshold.

- (a) This subcontract and employees working on this subcontract will be subject to the whistleblower rights and remedies in the pilot program on Subcontractor employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L.112-239) and FAR 3.908.
- (b) The Subcontractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712, as described in section 3.908 of the Federal Acquisition Regulation.
- (c) The Subcontractor shall insert the substance of this clause, including this paragraph (c), in all lower-tier subcontracts over the simplified acquisition threshold.

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PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (SPECIAL) (NOV 2019)

Derived from FAR 52.204-4 (MAY 2011)

(Applies to all subcontracts exceeding the Simplified Acquisition Threshold.)

- (a) Definitions. As used in this clause—
 - (1) "Postconsumer fiber"
 - (i) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or
 - (ii) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not
 - (iii) Fiber derived from printers' over-runs, converter's scrap, and over-issue publications.
- (b) When not using electronic commerce methods to submit information or data to NREL/Government, the Subcontractor is required to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper containing at least thirty (30) percent postconsumer fiber.

SYSTEM FOR AWARD MANAGEMENT (NOV 2019)

Derived from FAR 52.204-7 (OCT 2018)

Applies to all subcontracts and solicitations.

- (a) **Definitions.** As used in this provision—
- “Electronic Funds Transfer (EFT) indicator means a four-character suffix to the unique entity identifier. The suffix is assigned at the discretion of the commercial, nonprofit, or Government entity to establish additional System for Award Management records for identifying alternative EFT accounts (see subpart 32.11) for the same entity.
- “Registered in the System for Award Management (SAM)” means that—
- (1) The Offeror has entered all mandatory information, including the unique entity identifier and the EFT indicator, if applicable, the Commercial and Government Entity (CAGE) code, as well as data required by the Federal Funding Accountability and Transparency Act of 2006 (see subpart 4.14) into SAM
 - (2) The offeror has completed the Core, Assertions, and Representations and Certifications, and Points of Contact sections of the registration in SAM;
 - (3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS). The offeror will be required to provide consent for TIN validation to the Government as a part of the SAM registration process; and
 - (4) The Government has marked the record “Active”.
- “Unique entity identifier” means a number or other identifier used to identify a specific commercial, nonprofit, or Government entity. See www.sam.gov for the designated entity for establishing unique entity identifiers.
- (b)
- (1) An Offeror is required to be registered in SAM when submitting an offer or quotation, and shall continue to be registered until time of award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation.
 - (2) The Offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “Unique Entity Identifier” followed by the unique entity identifier that identifies the Offeror’s name and address exactly as stated in the offer. The Offeror also shall enter its EFT indicator, if applicable. The unique entity identifier will be used by the NREL Subcontract Administrator to verify that the Offeror is registered in the SAM.
- (c) If the Offeror does not have a unique entity identifier, it should contact the entity designated at www.sam.gov for establishment of the unique entity identifier directly to obtain one. The Offeror should be prepared to provide the following information:
- (1) Company legal business name.
 - (2) Tradestyle, doing business, or other name by which your entity is commonly recognized.
 - (3) Company Physical Street Address, City, State, and Zip Code.
 - (4) Company Mailing Address, City, State and Zip Code (if separate from physical).
 - (5) Company telephone number.
 - (6) Date the company was started.
 - (7) Number of employees at your location.
 - (8) Chief executive officer/key manager.
 - (9) Line of business (industry).

- (10) Company Headquarters name and address (reporting relationship within your entity).
- (d) If the Offeror does not become registered in the SAM database in the time prescribed by the NREL Subcontract Administrator, the NREL Subcontract Administrator reserves the right to proceed to award to the next otherwise successful registered Offeror.
- (e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered in SAM should consider applying for registration immediately upon receipt of this solicitation. See <https://www.sam.gov> for information on registration.

SYSTEM FOR AWARD MANAGEMENT MAINTENANCE (NOV 2019)

Derived from FAR 52.204-13 (OCT 2018)

(Applies to all subcontracts.)

(a) Definitions. As used in this clause—

“Electronic Funds Transfer (EFT) indicator” means a four-character suffix to the unique entity identifier. The suffix is assigned at the discretion of the commercial, nonprofit, or Government entity to establish additional System for Award Management (SAM) records for identifying alternative EFT accounts (see subpart 32.11) for the same entity.

“Registered in the System for Award Management (SAM)” means that—

- (1) The subcontractor has entered all mandatory information, including the unique entity identifier and the EFT indicator (if applicable), the Commercial and Government Entity (CAGE) code, as well as data required by the Federal Funding Accountability and Transparency Act of 2006 (see subpart 4.14), into SAM;
- (2) The subcontractor has completed the Core, Assertions, Representations and Certifications, and Points of Contact sections of the registration in SAM;
- (3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS). The subcontractor will be required to provide consent for TIN validation to the Government as a part of the SAM registration process; and
- (4) The Government has marked the record “Active”.

“System for Award Management (SAM)” means the primary Government repository for prospective Federal awardee and Federal awardee information and the centralized Government system for certain contracting, grants, and other assistance-related processes. It includes—

- (1) Data collected from prospective Federal awardees required for the conduct of business with the Government;
- (2) Prospective subcontractor-submitted annual representations and certifications in accordance with FAR subpart 4.12; and
- (3) Identification of those parties excluded from receiving Federal contracts, certain subcontracts, and certain types of Federal financial and non-financial assistance and benefits.

“Unique entity identifier” means a number or other identifier used to identify a specific commercial, nonprofit, or Government entity. See www.sam.gov for the designated entity for establishing unique entity identifiers.

- (b) If the solicitation for this subcontract contained the provision 52.204-7, and the subcontractor was unable to register prior to award, the subcontractor shall be registered in SAM within 30 days after award or before three days prior to submission of the first invoice, whichever occurs first.
- (c) The subcontractor shall maintain registration in SAM during subcontract performance and through final payment of any subcontract, basic agreement, basic ordering agreement, or blanket purchasing agreement. The subcontractor is responsible for the currency, accuracy and completeness of the data within SAM, and for any liability resulting from NREL and the Government's reliance on inaccurate or incomplete data. To remain registered in SAM after the initial registration, the subcontractor is required to review and update on an annual basis, from the date of initial registration or subsequent updates, its information in SAM to ensure it is current, accurate and

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- complete. Updating information in SAM does not alter the terms and conditions of this subcontract and is not a substitute for a properly executed contractual document.
- (d)
- (1)
- (i) If a subcontractor has legally changed its business name or “doing business as” name (whichever is shown on the subcontract), or has transferred the assets used in performing the subcontract, but has not completed the necessary requirements regarding novation and change-of-name agreements in subpart 42.12, the subcontractor shall provide the responsible NREL Subcontract Administrator a minimum of one business day's written notification of its intention to—
- (A) Change the name in SAM;
- (B) Comply with the requirements of subpart 42.12 of the FAR;
and
- (C) Agree in writing to the timeline and procedures specified by the responsible NREL Subcontract Administrator. The subcontractor shall provide with the notification sufficient documentation to support the legally changed name.
- (ii) If the subcontractor fails to comply with the requirements of paragraph (d)(1)(i) of this clause, or fails to perform the agreement at paragraph (d)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the SAM information that shows the subcontractor to be other than the subcontractor indicated in the subcontract will be considered to be incorrect information within the meaning of the “Suspension of Payment” paragraph of the electronic funds transfer (EFT) clause of this subcontract.

COMMERCIAL ITEMS—SUBCONTRACT TERMS AND CONDITIONS (JAN 2017)

Derived from FAR 52.212-4 (JAN 2017)

Applies to the acquisition of commercial items.

- (a) *Inspection/Acceptance.* The Subcontractor shall only tender for acceptance those items that conform to the requirements of this subcontract. NREL reserves the right to inspect or test any supplies or services that have been tendered for acceptance. NREL may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in subcontract price. If repair/replacement or reperformance will not correct the defects or is not possible, NREL/the Government may seek an equitable price reduction or adequate consideration for acceptance of nonconforming supplies or services. NREL/the Government must exercise its post-acceptance rights—
- (1) Within a reasonable time after the defect was discovered or should have been discovered; and
 - (2) Before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.
- (b) *Assignment.* The Subcontractor or its assignee may assign its rights to receive payment due as a result of performance of this subcontract to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act ([31 U.S.C. 3727](#)). However, when a third party makes payment (e.g., use of the Governmentwide commercial purchase card), the Subcontractor may not assign its rights to receive payment under this subcontract.
- (c) *Changes.* Changes in the terms and conditions of this subcontract may be made only by written agreement of the parties.
- (d) Subcontract Issues and Disputes. (Special) (Sep 2007)
- (1) It is NREL's practice to try to resolve all contractual issues by mutual agreement at the NREL Subcontract Administrator's level, without litigation. Both parties hereby agree to explore all reasonable avenues for negotiations in order to avoid a dispute. Either party may provide written notice to the other party to conduct negotiations for a period not to exceed sixty (60) calendar days. After sixty (60) calendar days, if possibilities for negotiations have failed, either party shall have thirty (30) calendar days to request that the potential dispute be moved to Alternative Dispute Resolution (ADR). Within fifteen (15) calendar days after receiving a request to move to ADR, if ADR procedures are not acceptable to the non-moving party, a written explanation citing specific reasons for rejecting ADR as inappropriate for resolution of the dispute shall be provided to the moving party. If the parties are unable to agree on the application of ADR procedures to resolve the potential dispute or are unable to satisfactorily resolve the dispute using ADR procedures for a period not to exceed ninety (90) calendar days (or such longer period as mutually agreed in writing), the parties shall resume the formal process authorized in this clause.
 - (2) The parties agree that the appropriate forum for litigation of any dispute pertaining to this subcontract shall be a court of competent jurisdiction as follows:
 - (ii) Subject to paragraph (d) (2) (ii) of this clause, any such litigation shall be brought and prosecuted exclusively in Federal District Court; with venue in the United States District Court of Colorado in Denver, Colorado.
 - (iii) Provided, however, that in the event that the requirements for jurisdiction in any Federal District Court are not present, such litigation

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shall be brought in a court of competent jurisdiction in the county of Jefferson and State of Colorado.

- (3) Any substantive issue of law in such litigation shall be determined in accordance with the body of applicable federal law relating to the interpretation and application of clauses derived from Federal Acquisition Regulation and the Department of Energy Acquisition Regulation that implement and supplement the FAR. If there is no applicable federal law, the law of the State of Colorado shall apply in the determination of such issues. Conflict of law provisions shall not determine applicable governing law. Nothing in this clause shall grant to the Subcontractor by implication any statutory rights or remedies not expressly set forth in this subcontract.
 - (4) There shall be no interruption in the prosecution of the work, and the Subcontractor shall proceed diligently with the performance of this subcontract pending final resolution of any subcontractual issues, disputes, or litigation arising under or related to this subcontract between the parties hereto or between the Subcontractor and lower-tier Subcontractors or suppliers.
 - (2) The Contract Disputes Act of 1978 (41 U.S.C. Sections 60 1-613) shall not apply to this subcontract; provided, however, that nothing in this clause shall prohibit NREL, in its sole discretion, from sponsoring a dispute of the Subcontractor for resolution under the provision of its prime contract with DOE. In the event that NREL so sponsors a dispute at the request of the Subcontractor, the Subcontractor shall be bound by the decision of the cognizant DOE Contracting Officer to the same extent and in the same manner as NREL.
 - (3) Any disputes relative to intellectual property matters will be governed by other provisions of this subcontract.
- (e) Definitions. (Special) (JUL 2014)
- (1) When a solicitation provision or subcontract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless—
 - (i) The solicitation, or amended solicitation, provides a different definition;
 - (ii) The subcontracting parties agree to a different definition;
 - (iii) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning; or
 - (iv) The word or term is defined in FAR Part 31, for use in the cost principles and procedures.
 - (2) The FAR Index is a guide to words and terms the FAR defines and shows where each definition is located. The FAR Index is available via the Internet at <http://www.acquisition.gov/far> at the end of the FAR, after the FAR Appendix.
 - (3) When a solicitation provision or subcontract clause uses a word or term that is defined in the Department of Energy Acquisition Regulation (DEAR) (48 CFR chapter 9), the word or term has the same meaning as the definition in 48 CFR 902.101 or the definition in the part, subpart, or section of 48 CFR chapter 9 where the provision or clause is prescribed in effect at the time the solicitation was issued, unless an exception in (a) applies.
 - (4) The following words and terms are in addition to paragraph (a) of this section—

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- (ii) "Head of the Agency" means the Secretary, Deputy Secretary or Under Secretary of the Department of Energy.
 - (iii) "DOE Contracting Officer" means a person with the authority to enter into, administer, and/or terminate DOE Prime Contracts and make related determinations and findings. The term includes certain authorized representatives of the DOE Contracting Officer acting within the limits of their authority as delegated by the DOE Contracting Officer.
 - (iv) "NREL Subcontract Administrator" means an employee of the entity that manages and operates the National Renewable Energy Laboratory (NREL) with the authority to enter into, administer, and/or terminate subcontracts under a DOE Prime Contract and make related determinations and findings. The term includes certain authorized representatives of NREL acting within the limits of their authority as delegated by NREL.
 - (v) Except as otherwise provided in this subcontract, the terms "subcontracts" and "lower-tier subcontracts" includes, but is not limited to, purchase orders and changes and modifications to purchase orders.
 - (vi) The term "DOE" means the U.S. Department of Energy.
 - (vii) "Contractor" or "DOE Prime Contractor" means the entity managing and operating the National Renewable Energy Laboratory (NREL) under Prime Contract to the U.S. Department of Energy (DOE). NREL is a Department of Energy-owned national laboratory, managed and operated by the DOE Prime Contractor.
 - (viii) The term "DOE Directive" means DOE Orders and Notices, modifications thereto and other forms of directives, including for purposes of this subcontract those portions of DOE's Accounting and Procedures Handbook applicable to Contractors, issued by DOE. The term does not include temporary written instructions by the DOE Contracting Officer or the NREL Subcontract Administrator for the purpose of addressing short-term or urgent DOE or NREL concerns relating to health, safety, or the environment.
- (f) *Excusable delays.* The Subcontractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Subcontractor and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Subcontractor shall notify the NREL Subcontract Administrator in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the NREL Subcontract Administrator of the cessation of such occurrence.
- (g) Invoice.
- (1) The Subcontractor shall submit an original invoice and three copies (or electronic invoice, if authorized) to the address designated in the subcontract to receive invoices. An invoice must include—
 - (i) Name and address of the Subcontractor;
 - (ii) Invoice date and number;
 - (iii) Subcontract number, line item number and, if applicable, the order number;

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- (iv) Description, quantity, unit of measure, unit price and extended price of the items delivered;
- (v) Shipping number and date of shipment, including the bill of lading number and weight of shipment if shipped on Government bill of lading;
- (vi) Terms of any discount for prompt payment offered;
- (vii) Name and address of official to whom payment is to be sent;
- (viii) Name, title, and phone number of person to notify in event of defective invoice; and
- (ii) [Reserved]
- (iii) [Reserved]
- (2) Invoices will be handled in accordance with the Prime Contractor's DOE-approved procurement system.
- (h) *Patent indemnity.* The Subcontractor shall indemnify NREL and /the Government and their officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this subcontract, provided the Subcontractor is reasonably notified of such claims and proceedings.
- (i) Payment.—
 - (1) *Items accepted.* Payment shall be made for items accepted by NREL that have been delivered to the delivery destinations set forth in this subcontract.
 - (2) NREL will make payment in accordance with the payment terms stated in the subcontract.
 - (3) [Reserved]
 - (4) *Discount.* In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if an electronic funds transfer payment is made.
 - (5) *Overpayments.* If the Subcontractor becomes aware of a duplicate subcontract financing or invoice payment or that NREL has otherwise overpaid on a subcontract financing or invoice payment, the Subcontractor shall—
 - (i) Remit the overpayment amount to the payment office cited in the subcontract along with a description of the overpayment including the—
 - (A) Circumstances of the overpayment (e.g., duplicate payment, erroneous payment, liquidation errors, date(s) of overpayment);
 - (B) Affected subcontract number and delivery order number, if applicable;
 - (C) Affected subcontract line item or subline item, if applicable; and
 - (D) Subcontractor point of contact.
 - (ii) Provide a copy of the remittance and supporting documentation to the NREL Subcontract Administrator.
 - (6) *Interest.*
 - (i) NREL retains all rights to impose simple interest on all amounts that become payable by the Subcontractor to NREL under this subcontract from the date due until paid unless paid within thirty (30) days of becoming due. The interest rate shall be the Current Value of Funds Rate (CVFR) published in the Federal Register as of the due date.
 - (ii) NREL may issue a demand for payment to the Subcontractor upon finding a debt is due under the subcontract.
 - (iii) The interest charge shall be computed for the actual number of calendar days involved beginning on the due date and ending on—

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- (A) The date on which NREL receives payment from the Subcontractor;
 - (B) The date of issuance of an NREL payment to the Subcontractor from which an amount otherwise payable has been withheld as a credit against the subcontract debt; or
 - (C) The date on which an amount withheld and applied to the subcontract debt would otherwise have become payable to the Subcontractor.
- (iv) The interest charge made under this clause may be reduced under the procedures prescribed in [32.608-2](#) of the Federal Acquisition Regulation in effect on the date of this contract.
- (j) *Risk of loss.* Unless the subcontract specifically provides otherwise, risk of loss or damage to the supplies provided under this subcontract shall remain with the Subcontractor until, and shall pass to NREL/the Government upon:
- (1) Delivery of the supplies to a carrier, if transportation is Free on Board (FOB) origin; or
 - (2) Delivery of the supplies to NREL at the destination specified in the contract, if transportation is f.o.b. destination.
- (k) *Taxes.* The Subcontractor shall exclude Colorado State Sales Tax from the Subcontract price. The Colorado Sales Tax Exemption Permit Number is provided in the Subcontract Schedule or Purchase Order. The Subcontractor warrants that the subcontract price includes all applicable Federal, State, and local taxes and duties.
- (l) *Termination for NREL/the Government's convenience.* NREL/the Government reserves the right to terminate this subcontract, or any part hereof, for its sole convenience. In the event of such termination, the Subcontractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and lower-tier subcontractors to cease work. Subject to the terms of this subcontract, the Subcontractor shall be paid a percentage of the subcontract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Subcontractor can demonstrate to the satisfaction of NREL using its standard record keeping system, have resulted from the termination. The Subcontractor shall not be required to comply with the cost accounting standards or subcontract cost principles for this purpose. This paragraph does not give NREL/the Government any right to audit the Subcontractor's records. The Subcontractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.
- (m) *Termination for cause.* NREL/the Government may terminate this subcontract, or any part hereof, for cause in the event of any default by the Subcontractor, or if the Subcontractor fails to comply with any subcontract terms and conditions, or fails to provide NREL/the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, NREL/the Government shall not be liable to the Subcontractor for any amount for supplies or services not accepted, and the Subcontractor shall be liable to NREL/the Government for any and all rights and remedies provided by law. If it is determined that NREL/the Government improperly terminated this subcontract for default, such termination shall be deemed a termination for convenience.
- (n) *Title.* Unless specified elsewhere in this subcontract, title to items furnished under this subcontract shall pass to the Government upon acceptance, regardless of when or where NREL/the Government takes physical possession.
- (o) *Warranty.* The Subcontractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this subcontract.

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- (p) *Limitation of liability.* Except as otherwise provided by an express warranty, the Subcontractor will not be liable to NREL/the Government for consequential damages resulting from any defect or deficiencies in accepted items.
- (q) *Other compliances.* The Subcontractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations applicable to its performance under this subcontract.
- (r) *Compliance with laws unique to Government Subcontracts.* The Subcontractor agrees to comply with [31 U.S.C. 1352](#) relating to limitations on the use of appropriated funds to influence certain Federal subcontracts; [18 U.S.C. 431](#) relating to officials not to benefit; [40 U.S.C. chapter 37](#), Contract Work Hours and Safety Standards; [41 U.S.C. chapter 87](#), Kickbacks; [41 U.S.C. 4712](#) and [10 U.S.C. 2409](#) relating to whistleblower protections; [49 U.S.C. 40118](#), Fly American; and [41 U.S.C. chapter 21](#) relating to procurement integrity.
- (s) *Order of precedence.* Any inconsistencies in this solicitation or subcontract shall be resolved by giving precedence in the following order:
- (1) The schedule of supplies/services.
 - (2) The Assignments, Disputes, Payments, Invoice, Other Compliances, Compliance with Laws Unique to Government Subcontracts, and Unauthorized Obligations paragraphs of this clause;
 - (3) The clause at [52.212-5](#).
 - (4) Addenda to this solicitation or subcontract, including any license agreements for computer software.
 - (3) [Reserved]
 1. Other paragraphs of this clause.
 - (4) [Reserved]
 - (5) The [Standard Form 1449](#).
 - (6) Other documents, exhibits, and attachments.
 - (7) The specification.
- (t) [RESERVED]
- (u) *Unauthorized Obligations.*
- (1) Except as stated in paragraph (u)(2) of this clause, when any supply or service acquired under this contract is subject to any End User License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, that includes any clause requiring the Government to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability that would create an Anti-Deficiency Act violation (31 U.S.C. 1341), the following shall govern:
 - (i) Any such clause is unenforceable against the Government.
 - (ii) Neither the Government nor any Government authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an "I agree" click box or other comparable mechanism (e.g., "click-wrap" or "browse-wrap" agreements), execution does not bind the Government or any Government authorized end user to such clause.
 - (iii) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.
 - (2) Paragraph (u)(1) of this clause does not apply to indemnification by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulations and procedures.

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- (v) Incorporation by reference. The Subcontractor's representations and certifications, including those completed electronically via the System for Award Management (SAM), are incorporated by reference into the subcontract.

NOTIFICATION OF CHANGE IN OWNERSHIP AND/OR NAME (OCT 2009)

Derived from FAR 52.215-19 (OCT 1997) (FD)

(Applies to all subcontracts.)

- (a) The Subcontractor shall make the following notifications in writing:
 - (1) When the Subcontractor becomes aware that a change in its ownership or name has occurred, or is certain to occur, the Subcontractor shall provide such notification in accordance with NREL's novation and name change procedures.
 - (2) When a change that could result in changes in the valuation of the Subcontractor's capitalized assets in the accounting records or any other asset valuations or cost changes, the Subcontractor shall provide such notification to the NREL Subcontract Administrator within thirty (30) days.
- (b) In the event of change in ownership, the Subcontractor shall—
 - (1) Maintain current, accurate, and complete inventory records of assets and their costs;
 - (2) Provide the NREL Subcontract Administrator or designated representative ready access to the records upon request;
 - (3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives, are identified accurately before and after each of the Subcontractor's ownership changes; and
 - (4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Subcontractor ownership change.
- (c) The Subcontractor shall include the substance of this clause in all lower-tier subcontracts where it is contemplated that cost or pricing data will be required or for which any pre-award or post-award cost determination is subject to FAR 31.2, cost principles and procedures applicable to commercial organizations. The Subcontractor shall notify the NREL Subcontract Administrator of the change in ownership or name of any lower-tier Subcontractor subject to the terms of this clause.

LIMITATIONS ON PASS-THROUGH CHARGES (OCT 2009)

Derived from FAR 52.215-23 (OCT 2009)

Applies to all cost-reimbursement subcontracts exceeding the Simplified Acquisition Threshold.

(a) *Definitions.* As used in this clause-

“Added value” means that the Subcontractor performs lower-tier subcontract management functions that the NREL Subcontract Administrator determines are a benefit to NREL/the Government (e.g., processing orders of parts or services, maintaining inventory, reducing delivery lead times, managing multiple sources for subcontract requirements, coordinating deliveries, performing quality assurance functions).

“Excessive pass-through charge”, with respect to a Subcontractor or lower-tier subcontractor that adds no or negligible value to a subcontract or lower-tier subcontract, means a charge to NREL/the Government by the Subcontractor or lower-tier subcontractor that is for indirect costs or profit/fee on work performed by a lower-tier subcontractor (other than charges for the costs of managing lower-tier subcontracts and any applicable indirect costs and associated profit/fee based on such costs).

“No or negligible value” means the Subcontractor or lower-tier subcontractor cannot demonstrate to the NREL Subcontract Administrator that its effort added value to the subcontract or lower-tier subcontract in accomplishing the work performed under the subcontract (including task or delivery orders).

“Lower-Tier Subcontract” means any contract, as defined in FAR [2.101](#), entered into by a lower-tier subcontractor to furnish supplies or services for performance of the subcontract or a lower-tier subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

“Lower-Tier Subcontractor” and “Sub-Tier Subcontractor,” as defined in FAR [44.101](#), means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime Subcontractor or another subcontractor at any tier.

(b) *General.* NREL/the Government will not pay excessive pass-through charges. The NREL/Subcontract Administrator shall determine if excessive pass-through charges exist.

(c) *Reporting.* Required reporting of performance of work by the Subcontractor or a lower-tier subcontractor. The Subcontractor shall notify the NREL Subcontract Administrator in writing if-

- (1) The Subcontractor changes the amount of lower-tier subcontract effort after award such that it exceeds 70 percent of the total cost of work to be performed under the subcontract, task order, or delivery order. The notification shall identify the revised cost of the lower-tier subcontract effort and shall include verification that the Subcontractor will provide added value; or
- (2) Any lower-tier subcontractor changes the amount of sub-tier subcontractor effort after award such that it exceeds 70 percent of the total cost of the work to be performed under its lower-tier subcontract. The notification shall identify the revised cost of the lower-tier subcontract effort and shall include verification that the lower-tier subcontractor will provide added value as related to the work to be performed by the sub-tier subcontractor(s).

(d) *Recovery of excessive pass-through charges.* If the NREL Subcontract Administrator determines that excessive pass-through charges exist as directed by the DOE Contracting Officer;

- (1) For other than fixed-price contracts, the excessive pass-through charges are unallowable in accordance with the provisions in FAR subpart [31.2](#); and

- (2) [Reserved.]
- (e) *Access to records.*
 - (1) The DOE Contracting Officer, NREL Subcontract Administrator, or authorized representative, shall have the right to examine and audit all the Subcontractor's records (as defined at FAR [52.215-2\(a\)](#)) necessary to determine whether the Subcontractor proposed, billed, or claimed excessive pass-through charges.
 - (2) For those lower-tier subcontracts to which paragraph (f) of this clause applies, the DOE Contracting Officer, NREL Subcontract Administrator or authorized representative, shall have the right to examine and audit all the lower-tier subcontractor's records (as defined at FAR [52.215-2\(a\)](#)) as necessary to determine whether the lower-tier subcontractor proposed, billed, or claimed excessive pass-through charges.
- (f) *Flowdown.* The Subcontractor shall insert the substance of this clause, including this paragraph (f), in all cost-reimbursement lower-tier subcontracts under this subcontract that exceeds the simplified acquisition threshold.

PAYMENT FOR OVERTIME PREMIUMS (OCT 2011)

Derived from FAR 52.222-2 (JUL 1990)

(Applies to cost-type subcontracts exceeding \$150,000.)

- (a) The use of overtime is authorized under this subcontract if the overtime premium does not exceed zero (0) or the overtime premium is paid for work—
 - (1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;
 - (2) By indirect labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;
 - (3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or
 - (4) That will result in lower overall costs to NREL/Government.
- (b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall—
 - (1) Identify the work unit e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the NREL Subcontract Administrator to evaluate the necessity for the overtime;
 - (2) Demonstrate the effect that denial of the request will have on the subcontract delivery or performance schedule;
 - (3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government subcontracts/contracts, together with identification of each affected subcontract/contract; and
 - (4) Provide reasons why the required work cannot be performed by using multi-shift operations or by employing additional personnel.

CONVICT LABOR (JUN 2003)

Derived from FAR 52.222-3 (JUN 2003)

(Applies to all subcontracts.)

- (a) Except as provided in paragraph (b) of this clause, the Subcontractor shall not employ in the performance of this subcontract any person undergoing a sentence of imprisonment imposed by any court of a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands.
- (b) The Subcontractor is not prohibited from employing persons—
 - (1) On parole or probation to work at paid employment during the term of their sentence;
 - (2) Who have been pardoned or who have served their terms; or
 - (3) Confined for violation of the laws of any of the States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if—
 - (i) The worker is paid or is in an approved work training program on a voluntary basis;
 - (ii) Representatives of local union central bodies or similar labor union organizations have been consulted;
 - (iii) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services;
 - (iv) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and
 - (v) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

SUBCONTRACTS FOR MATERIALS, SUPPLIES, ARTICLES AND EQUIPMENT (MAY 2014)

Derived from FAR 52.222-20 (MAY 2014)

(Applies to all subcontracts exceeding \$15,000 for manufacturing or furnishing of materials, supplies, articles, or equipment subject to the Walsh-Healey Public Contracts Act.)

If this subcontract is for the manufacture or furnishing of materials, supplies, articles or equipment in an amount that exceeds or may exceed \$15,000, and is subject to 41 U.S.C. chapter 65, the following terms and conditions apply:

- (a) All stipulations required by 41 U.S.C. chapter 65 and regulations issued by the Secretary of Labor (41 CFR Chapter 50) are incorporated by reference. These stipulations are subject to all applicable rulings and interpretations of the Secretary of Labor that are now, or may hereafter, be in effect.
- (b) All employees whose work relates to this subcontract shall be paid not less than the minimum wage prescribed by regulations issued by the Secretary of Labor (41 CFR 50-202.2). Learners, student learners, apprentices, and workers with disabilities may be employed at less than the prescribed minimum wage (see 41 CFR 50-202.3) to the same extent that such employment is permitted under Section 14 of the Fair Labor Standards Act (41 U.S.C. 6508).

EMPLOYMENT ELIGIBILITY VERIFICATION (OCT 2015) (SPECIAL JAN 2019)

Derived from FAR 52.222-54 (OCT 2015) (FD)

Applies to all subcontracts that exceed \$3,500 and includes work performed in the United States.

- (a) Definitions. As used in this clause—
- “Commercially available off-the-shelf (COTS) item”—
- (1) Means any item of supply that is—
 - (i) A commercial item (as defined in paragraph (1) of the definition at 2.101);
 - (ii) Sold in substantial quantities in the commercial marketplace; and
 - (iii) Offered to NREL/the Government, without modification, in the same form in which it is sold in the commercial marketplace; and
 - (2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4) such as agricultural products and petroleum products. Per 46 CFR 525.1(c)(2), “bulk cargo” means cargo that is loaded and carried in bulk onboard ship without mark or count, in a loose unpackaged form, having homogenous characteristics. Bulk cargo loaded into intermodal equipment, except LASH or Seabee barges, is subject to mark and count and, therefore, ceases to be bulk cargo.
- “Employee assigned to the subcontract” means an employee who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), who is directly performing work, in the United States, under a subcontract that is required to include the clause prescribed at 22.1803. An employee is not considered to be directly performing work under a subcontract if the employee—
- (1) Normally performs support work, such as indirect or overhead functions; and
 - (2) Does not perform any substantial duties applicable to the subcontract.
- “Contractor” or “DOE Prime Contractor” means the entity managing and operating the National Renewable Energy Laboratory under prime contract to the U.S. Department of Energy (DOE). The National Renewable Energy Laboratory (NREL) is a Department of Energy-owned national laboratory, managed and operated by the DOE Prime Contractor.
- “Lower-tier Subcontractor means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a Subcontractor or another lower-tier Subcontractor.
- “Subcontract” means any subcontract, as defined in 2.101, entered into by a lower-tier subcontractor to furnish supplies or services for performance of a prime subcontract or a lower-tier subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.
- (1) “United States,” as defined in 8 U.S.C. 1101(a)(38), means the 50 States, the District of Columbia, Puerto Rico, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands.
- (b) Enrollment and verification requirements.
- (1) If the Subcontractor is not enrolled as a Federal [Sub]Contractor in E-Verify at time of subcontract award, the Subcontractor shall—
 - (i) Enroll. Enroll as a Federal [Sub]Contractor in the E-Verify program within 30 calendar days of subcontract award;
 - (ii) Verify all new employees. Within 90 calendar days of enrollment in the E-Verify program, begin to use E-Verify to initiate verification of employment eligibility of all new hires of the Subcontractor, who are working in the United States, whether or not assigned to the subcontract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); and

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- (iii) Verify employees assigned to the subcontract. For each employee assigned to the subcontract, initiate verification within 90 calendar days after date of enrollment or within 30 calendar days of the employee's assignment to the subcontract, whichever date is later (but see paragraph (b)(4) of this section).
 - (2) If the Subcontractor is enrolled as a Federal [Sub]Contractor in E-Verify at time of subcontract award, the Subcontractor shall use E-Verify to initiate verification of employment eligibility of—
 - (i) All new employees.
 - (A) Enrolled 90 calendar days or more. The Subcontractor shall initiate verification of all new hires of the Subcontractor, who are working in the United States, whether or not assigned to the subcontract within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or
 - (B) Enrolled less than 90 calendar days. Within 90 calendar days after enrollment as a Federal [Sub]Contractor in E-Verify, the Subcontractor shall initiate verification of all new hires of the subcontractor, who are working in the United States, whether or not assigned to the subcontract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or
 - (ii) Employees assigned to the subcontract. For each employee assigned to the subcontract, the Subcontractor shall initiate verification within 90 calendar days after date of subcontract award or within 30 days after assignment to the subcontract, whichever date is later (but see paragraph (b)(4) of this section).
- If the Subcontractor is an institution of higher education (as defined at [20 U.S.C. 1001\(a\)](#)); a State or local government or the government of a Federally recognized Indian tribe; or a surety performing under a takeover agreement entered into with a Federal agency or NREL pursuant to a performance bond, the Subcontractor may choose to verify only employees assigned to the subcontract, whether existing employees or new hires. The Subcontractor shall follow the applicable verification requirements at (b)(1) or (b)(2), respectively, except that any requirement for verification of new employees applies only to new employees assigned to the subcontract.
- (3) Option to verify employment eligibility of all employees. The Subcontractor may elect to verify all existing employees hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), rather than just those employees assigned to the subcontract. The Subcontractor shall initiate verification for each existing employee working in the United States who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), within 180 calendar days of—
 - (i) Enrollment in the E-Verify program; or
 - (ii) Notification to E-Verify Operations of the Subcontractor's decision to exercise this option, using the contact information provided in the E-Verify program Memorandum of Understanding (MOU).
 - (4) The Subcontractor shall comply, for the period of performance of this subcontract, with the requirements of the E-Verify program MOU.
 - (i) The Department of Homeland Security (DHS) or the Social Security Administration (SSA) may terminate the Subcontractor's MOU and deny access to the E-Verify system in accordance with the terms of the MOU. In such case, the Subcontractor will be referred to a suspension or debarment official.

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- (ii) During the period between termination of the MOU and a decision by the suspension or debarment official whether to suspend or debar, the Subcontractor is excused from its obligations under paragraph (b) of this clause. If the suspension or debarment official determines not to suspend or debar the Subcontractor, then the Subcontractor must reenroll in E-Verify.
- (c) Web site. Information on registration for and use of the E-Verify program can be obtained via the Internet at the Department of Homeland Security Web site: <http://www.dhs.gov/E-Verify>.
- (d) Individuals previously verified. The Subcontractor is not required by this clause to perform additional employment verification using E-Verify for any employee—
 - (1) Whose employment eligibility was previously verified by the Subcontractor through the E-Verify program;
 - (2) Who has been granted and holds an active U.S. Government security clearance for access to confidential, secret, or top secret information in accordance with the National Industrial Security Program Operating Manual; or
 - (3) Who has undergone a completed background investigation and been issued credentials pursuant to Homeland Security Presidential Directive (HSPD) -12, Policy for a Common Identification Standard for Federal Employees and [Sub]Contractors.
- (e) Lower-tier Subcontracts. The Subcontractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for identification of the parties), in each lower-tier subcontract that—
 - (1) Is for—
 - (i) Commercial or noncommercial services (except for commercial services that are part of the purchase of a COTS item (or an item that would be a COTS item, but for minor modifications), performed by the COTS provider, and are normally provided for that COTS item); or
 - (ii) Construction;
 - (2) Has a value of more than \$3,500; and
 - (3) Includes work performed in the United States.

AFFIRMATIVE PROCUREMENT OF BIOBASED PRODUCTS UNDER SERVICE AND CONSTRUCTION SUBCONTRACTS (NOV 2019)

Derived from FAR 52.223-2 (SEP 2013)

(Applies to subcontracts for service and construction that involve the use of USDA-designated items at <http://www.biopreferred.gov> or 7 CFR part 3201.)

- (a) In the performance of this subcontract, the subcontractor shall make maximum use of biobased products that are United States Department of Agriculture (USDA)-designated items unless-
 - (1) The product cannot be acquired-
 - (i) Competitively within a time frame providing for compliance with the subcontract performance schedule;
 - (ii) Meeting subcontract performance requirements; or
 - (iii) At a reasonable price.
 - (2) The product is to be used in an application covered by a USDA categorical exemption (see 7 CFR 3201.3(e)). For example, all USDA-designated items are exempt from the preferred procurement requirement for the following:
 - (i) Spacecraft system and launch support equipment.
 - (ii) Military equipment, i.e., a product or system designed or procured for combat or combat-related missions.
- (b) Information about this requirement and these products is available at <http://www.biopreferred.gov>.
- (c) In the performance of this subcontract, the Subcontractor shall-
 - (1) Report to the NREL Subcontract Administrator, on the product types and dollar value of any USDA-designated biobased products purchased by the Subcontractor during the previous Government fiscal year, between October 1 and September 30; and
 - (2) Submit this report no later than-
 - (i) October 31 of each year during subcontract performance; and
 - (ii) At the end of subcontract performance.

52.223-10 WASTE REDUCTION PROGRAM (NOV 2019)

Derived from FAR 52.223-10 (MAY 2011)

(Applies to all solicitations and subcontracts for support services at NREL-operated facilities.)

- (a) Definitions. As used in this clause-
 - (1) "Recycling" means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of products other than fuel for producing heat or power by combustion.
 - (2) "Waste prevention" means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.
 - (3) "Waste reduction" means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.
- (b) Consistent with the requirements of Section 3(e) of Executive Order 13423, the subcontractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by this subcontract. The Subcontractor's programs shall comply with applicable Federal, State, and local requirements, specifically including Section 6002 of the Resource Conservation and Recovery Act (42 U.S.C.6962, *etseq.*) and implementing regulations (40 CFR Part 247).

**OZONE-DEPLETING SUBSTANCES AND HIGH GLOBAL WARMING POTENTIAL
HYDROFLUOROCARBONS (NOV 2019)**

Derived from FAR 52.223-11 (JUN 2016)

(Applies to all subcontracts or purchase orders performed or delivered within the United States.)

(a) Definitions. As used in this clause—

“Global warming potential” means how much a given mass of a chemical contributes to global warming over a given time period compared to the same mass of carbon dioxide. Carbon dioxide’s global warming potential is defined as 1.0.

“High global warming potential hydrofluorocarbons” means any hydrofluorocarbons in a particular end use for which EPA’s Significant New Alternatives Policy (SNAP) program has identified other acceptable alternatives that have lower global warming potential. The SNAP list of alternatives is found at 40 CFR Part 82 subpart G with supplemental tables of alternatives available at (<http://www.epa.gov/snap/>).

“Hydrofluorocarbons” means compounds that only contain hydrogen, fluorine, and carbon.

“Ozone-depleting substance,” means any substance the Environmental Protection Agency designates in 40 CFR part 82 as—

- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
- (2) Class II, including, but not limited to, hydrochlorofluorocarbons.

(b) The Subcontractor shall label products that contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C.7671j(b), (c), (d), and (e) and 40 CFR part 82, subpart E, as follows:

Warning

Contains (or manufactured with, if applicable) * _____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

*The Subcontractor shall insert the name of the substance(s).

- (c) Reporting. For equipment and appliances that normally each contain 50 or more pounds of hydrofluorocarbons or refrigerant blends containing hydrofluorocarbons, the Subcontractor shall—
- (1) Track on an annual basis, between October 1 and September 30, the amount in pounds of hydrofluorocarbons or refrigerant blends containing hydrofluorocarbons contained in the equipment and appliances delivered to NREL and the Government under this subcontract by—
 - (i) Type of hydrofluorocarbon (e.g., HFC-134 a, HFC-125, R-410 A, R-404 A, etc.);
 - (ii) Subcontract number; and
 - (iii) Equipment/appliance;
 - (2) Report that information to the NREL Subcontract Administrator –
 - (i) Annually by November 30 of each year during subcontract performance; and

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- (ii) At the end of subcontract performance.
- (d) The Subcontractor shall refer to EPA's SNAP program (available at <http://www.epa.gov/snap>) to identify alternatives. The SNAP list of alternatives is found at 40 CFR part 82 subpart G with supplemental tables available at <http://www.epa.gov/snap>.

MAINTENANCE, SERVICE, REPAIR, OR DISPOSAL OF REFRIGERATION EQUIPMENT AND AIR CONDITIONERS (NOV 2019)

Derived from FAR 52.223-12 (JUN 2016)

(Applies to all indefinite delivery service subcontracts)

- (a) Definitions. As used in this clause—
- “Global warming potential” means how much a given mass of a chemical contributes to global warming over a given time period compared to the same mass of carbon dioxide. Carbon dioxide’s global warming potential is defined as 1.0.
- “High global warming potential hydrofluorocarbons” means any hydrofluorocarbons in a particular end use for which EPA’s Significant New Alternatives Policy (SNAP) program has identified other acceptable alternatives that have lower global warming potential. The SNAP list of alternatives is found at 40 CFR Part 82 subpart G with supplemental tables of alternatives available at (<http://www.epa.gov/snap/>).
- “Hydrofluorocarbons” means compounds that only contain hydrogen, fluorine, and carbon.
- (b) The Subcontractor shall comply with the applicable requirements of Sections 608 and 609 of the Clean Air Act (42 U.S.C.7671g and 7 671h) as each or both apply to this subcontract.
- (c) Unless otherwise specified in the subcontract, the Subcontractor shall reduce the use, release, or emissions of high global warming potential hydrofluorocarbons under this subcontract by—
- (1) Transitioning over time to the use of another acceptable alternative in lieu of high global warming potential hydrofluorocarbons in a particular end use for which EPA’s SNAP program has identified other acceptable alternatives that have lower global warming potential;
 - (2) Preventing and repairing refrigerant leaks through service and maintenance during contract performance;
 - (3) Implementing recovery, recycling, and responsible disposal programs that avoid release or emissions during equipment service and as the equipment reaches the end of its useful life; and
 - (4) Using reclaimed hydrofluorocarbons, where feasible.
- (d) For equipment and appliances that normally each contain 50 or more pounds of hydrofluorocarbons or refrigerant blends containing hydrofluorocarbons, that will be maintained, serviced, repaired, or disposed under this contract, the Subcontractor shall—
- (1) Track on an annual basis, between October 1 and September 30, the amount in pounds of hydrofluorocarbons or refrigerant blends containing hydrofluorocarbons added or taken out of equipment or appliances under this subcontract by—
 - (i) Type of hydrofluorocarbon (e.g., HFC-134 a, HFC-125, R-410 A, R-404 A, etc.);
 - (ii) Subcontract number;
 - (iii) Equipment/appliance; and
 - (2) Report that information to the NREL Subcontract Administrator –
 - (i) No later than November 30 of each year during subcontract performance; and
 - (ii) At the end of subcontract performance.

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- (e) The subcontractor shall refer to EPA's SNAP program to identify alternatives. The SNAP list of alternatives is found at 40 CFR part 82 subpart G with supplemental tables available at <http://www.epa.gov/snap/>.

ACQUISITION OF EPEAT®-REGISTERED IMAGING EQUIPMENT (NOV 2019)

Derived from FAR 52.223-13 (JUN 2014)

(Applies to all subcontracts for the acquisition of imaging equipment.)

(a) Definitions. As used in this clause—

“Imaging equipment” means the following products:

- (1) Copier-A commercially available imaging product with a sole function of the production of hard copy duplicates from graphic hard-copy originals. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as copiers or upgradeable digital copiers (UDCs).
- (2) Digital duplicator-A commercially available imaging product that is sold in the market as a fully automated duplicator system through the method of stencil duplicating with digital reproduction functionality. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as digital duplicators.
- (3) Facsimile machine (fax machine)-A commercially available imaging product whose primary functions are scanning hard-copy originals for electronic transmission to remote units and receiving similar electronic transmissions to produce hard-copy output. Electronic transmission is primarily over a public telephone system but also may be via computer network or the Internet. The product also may be capable of producing hard copy duplicates. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as fax machines.
- (4) Mailing machine-A commercially available imaging product that serves to print postage onto mail pieces. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as mailing machines.
- (5) Multifunction device (MFD)-A commercially available imaging product, which is a physically integrated device or a combination of functionally integrated components, that performs two or more of the core functions of copying, printing, scanning, or faxing. The copy functionality as addressed in this definition is considered to be distinct from single-sheet convenience copying offered by fax machines. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as MFDs or multifunction products.
- (6) Printer-A commercially available imaging product that serves as a hard-copy output device and is capable of receiving information from single-user or networked computers, or other input devices (e.g., digital cameras). The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as printers, including printers that can be upgraded into MFDs in the field.
- (7) Scanner-A commercially available imaging product that functions as an electro-optical device for converting information into electronic images that can be stored, edited, converted, or transmitted, primarily in a personal computing environment. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as scanners.

(b) Under this subcontract, the Subcontractor shall deliver, furnish for NREL/the Government use, or furnish for Subcontractor use at a Federally controlled facility,

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- only imaging equipment that, at the time of submission of proposals and at the time of award, was EPEAT® bronze-registered or higher.
- (c) For information about EPEAT®, see www.epa.gov/epeat/.

ACQUISITION OF EPEAT®-REGISTERED TELEVISIONS (NOV 2019)

Derived from FAR 52.223-14 (JUN 2014)

(Applies to all subcontracts for the acquisition of televisions.)

(a) Definitions. As used in this clause—

“Television” or “TV” means a commercially available electronic product designed primarily for the reception and display of audiovisual signals received from terrestrial, cable, satellite, Internet Protocol TV (IPTV), or other digital or analog sources. A TV consists of a tuner/receiver and a display encased in a single enclosure. The product usually relies upon a cathode-ray tube (CRT), liquid crystal display (LCD), plasma display, or other display technology. Televisions with computer capability (e.g., computer input port) may be considered to be a TV as long as they are marketed and sold to consumers primarily as televisions.

(b) Under this subcontract, the Subcontractor shall deliver, furnish for NREL/Government use, or furnish for Subcontractor use at a Federally controlled facility, only televisions that, at the time of submission of proposals and at the time of award, were EPEAT® bronze-registered or higher.

(c) For information about EPEAT®, see www.epa.gov/epeat/.

ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS (DEC 2007) (SPECIAL OCT 2008)

Derived from FAR 52.223-15 (DEC 2007) (FD)

Applies to all subcontracts where energy consuming products will be delivered, acquired, or furnished for use by the Subcontractor or for use on NREL-operated facilities or government-owned or -leased properties.

- (a) Definition. As used in this clause—
 - (1) “Energy-efficient product”—
 - (i) Means a product that—
meets DOE and Environmental Protection Agency criteria for use of the Energy Star® trademark label; or
 - (ii) Is in the upper twenty-five percent (25%) of efficiency for all similar products as designated by the Department of Energy’s Federal Energy Management Program (FEMP).
 - (2) [Reserved.]
- (b) The Subcontractor shall ensure that energy-consuming products are energy efficient products (i.e., ENERGY STAR® products or FEMP-designated products) at the time of subcontract award, for products that are—
 - (1) Delivered;
 - (2) Acquired by the Subcontractor for use in performing services at a DOE-owned or -leased facility;
 - (3) Furnished by the Subcontractor for use by NREL/Government; or
 - (4) Specified in the design of a building or work, or incorporated during its construction, renovation, or maintenance.
- (c) The requirements of paragraph (b) apply to the Subcontractor (including any lower-tier Subcontractor) unless—
 - (1) The energy-consuming product is not listed in the ENERGY STAR® Program or FEMP; or
 - (2) Otherwise approved in writing by the NREL Subcontract Administrator.
- (d) Information about these products is available for—
 - (1) ENERGY STAR® at <http://www.energystar.gov/products>; and
 - (2) FEMP at http://www1.eere.energy.gov/femp/procurement/eep_requirements.html.

ACQUISITION OF EPEAT® -REGISTERED PERSONAL COMPUTER PRODUCTS AND ALTERNATE I (NOV 2019).

Derived from FAR 52.223-16 (OCT 2015) and Alternate I (JUN 2014)

(Applies to all subcontracts for the acquisition of personal computer products.)

(a) *Definitions.* As used in this clause—

“Computer” means a device that performs logical operations and processes data. Computers are composed of, at a minimum.

- (1) A central processing unit (CPU) to perform operations;
- (2) User input devices such as a keyboard, mouse, digitizer, or game controller; and
- (3) A computer display screen to output information. Computers include both stationary and portable units, including desktop computers, integrated desktop computers, notebook computers, thin clients, and workstations. Although computers must be capable of using input devices and computer displays, as noted in (2) and (3) above, computer systems do not need to include these devices on shipment to meet this definition. This definition does not include server computers, gaming consoles, mobile telephones, portable hand-held calculators, portable digital assistants (PDAs), MP3 players, or any other mobile computing device with displays less than 4 inches, measured diagonally.

“Computer display” means a display screen and its associated electronics encased in a single housing or within the computer housing (e.g., notebook or integrated desktop computer) that is capable of displaying output information from a computer via one or more inputs such as a VGA, DVI, USB, DisplayPort, and/or IEEE 1394-2008™, Standard for High Performance Serial Bus. Examples of computer display technologies are the cathode-ray tube (CRT) and liquid crystal display (LCD).

“Desktop computer” means a computer where the main unit is intended to be located in a permanent location, often on a desk or on the floor. Desktops are not designed for portability and utilize an external computer display, keyboard, and mouse. Desktops are designed for a broad range of home and office applications.

“Integrated desktop computer” means a desktop system in which the computer and computer display function as a single unit that receives its AC power through a single cable. Integrated desktop computers come in one of two possible forms:

- (4) A system where the computer display and computer are physically combined into a single unit; or
- (5) A system packaged as a single system where the computer display is separate but is connected to the main chassis by a DC power cord and both the computer and computer display are powered from a single power supply. As a subset of desktop computers, integrated desktop computers are typically designed to provide similar functionality as desktop systems

“Notebook computer” means a computer designed specifically for portability and to be operated for extended periods of time either with or without a direct connection to an AC power source. Notebooks must utilize an integrated computer display and be capable of operation off of an integrated battery or other portable power source. In addition, most notebooks use an external power supply and have an integrated

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keyboard and pointing device. Notebook computers are typically designed to provide similar functionality to desktops, including operation of software similar in functionality to that used in desktops. Docking stations are considered accessories for notebook computers, not notebook computers. Tablet PCs, which may use touch-sensitive screens along with, or instead of, other input devices, are considered notebook computers.

“Personal computer product” means a computer, computer display, desktop computer, integrated desktop computer, or notebook computer.

- (b) Under this subcontract, the Subcontractor shall deliver, furnish for NREL/Government use, or furnish for Subcontractor use at a Federally controlled facility, only personal computer products that, at the time of submission of proposals and at the time of award, were EPEAT® silver-registered or gold-registered.
- (c) For information about EPEAT®, see www.epa.gov/epeat.

AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS (NOV 2019)

Derived from FAR 52.223-17 (AUG 2018)

(Applies to all service and construction subcontracts unless the subcontract will not involve the use of a product that is or can be made with recovered material.)

- (a) In the performance of this subcontract, the subcontractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired-
 - (1) Competitively within a timeframe providing for compliance with the subcontract performance schedule;
 - (2) Meeting contract performance requirements; or
 - (3) At a reasonable price.
- (b) Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, <http://https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>. The list of EPA-designated items is available at <http://https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

ENCOURAGING SUBCONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING (AUG 2011)

Derived from FAR 52.223-18 (AUG 2011)

(Applies to subcontracts exceeding the micro-purchase threshold.)

- (a) *Definitions.* As used in this clause--
- “Driving”—
- (1) Means operating a motor vehicle on an active roadway with the motor running, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise.
 - (2) Does not include operating a motor vehicle with or without the motor running when one has pulled over to the side of, or off, an active roadway and has halted in a location where one can safely remain stationary.
- “Text messaging” means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include glancing at or listening to a navigational device that is secured in a commercially designed holder affixed to the vehicle, provided that the destination and route are programmed into the device either before driving or while stopped in a location off the roadway where it is safe and legal to park.
- (b) This clause implements Executive Order 13513, Federal Leadership on Reducing Text Messaging while Driving, dated October 1, 2009.
- (c) The Subcontractor is encouraged to—
- (1) Adopt and enforce policies that ban text messaging while driving—
 - (i) Company-owned or -rented vehicles or Government-owned vehicles; or
 - (ii) Privately-owned vehicles when on official NREL/Government business or when performing any work for or on behalf of NREL/the Government.
 - (2) Conduct initiatives in a manner commensurate with the size of the business, such as—
 - (i) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and
 - (ii) Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.
- (d) Lower-tier subcontracts. The Subcontractor shall insert the substance of this clause, including this paragraph (d), in all lower-tier subcontracts that exceed the micro-purchase threshold.

BUY AMERICAN ACT—SUPPLIES (MAY 2014)

Derived from FAR 52.225-1 (MAY 2014)

(Applies to subcontracts for supplies exceeding \$25,000)

(a) *Definitions.* As used in this clause--

“Commercially available off-the-shelf (COTS) item”—

- (1) Means any item of supply (including construction material) that is—
 - (i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);
 - (ii) Sold in substantial quantities in the commercial marketplace; and
 - (iii) Offered to NREL/the Government, under a subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and
- (2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

“Component” means an article, material, or supply incorporated directly into an end product.

“Cost of components” means--

- (1) For components purchased by the Subcontractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
- (2) For components manufactured by the Subcontractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

“Domestic end product” means—

- (1) An unmanufactured end product mined or produced in the United States;
- (2) An end product manufactured in the United States, if—
 - (i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as those that the agency determines are not mined, produced, or manufactured in sufficient and reasonably available commercial quantities of a satisfactory quality are treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic; or
 - (ii) The end product is a COTS item.

“End product” means those articles, materials, and supplies to be acquired under the contract for public use.

“Foreign end product” means an end product other than a domestic end product.

“United States” means the 50 States, the District of Columbia, and outlying areas.

- (b) 41 U.S.C. chapter 83, Buy American, provides a preference for domestic end products for supplies acquired for use in the United States. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for an end product that is a COTS item (See [12.505\(a\)\(1\)](#)).
- (c) Subcontractors may obtain from NREL Subcontract Administrator a list of foreign articles that the NREL Subcontract Administrator will treat as domestic for this subcontract.

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- (d) The Subcontractor shall deliver only domestic end products except to the extent that it specified delivery of foreign end products in the provision of the solicitation entitled "Buy American Certificate."

DUTY-FREE ENTRY (OCT 2010)

Derived from FAR 52.225-8 (OCT 2010) (FD)

(Applies to subcontracts where supplies to be accorded duty-free entry will be imported into the customs territory of the United States, or other foreign supplies in excess of \$15,000 may be imported into the customs territory of the United States.)

- (a) *Definition.* "Customs territory of the United States" means the States, the District of Columbia, and Puerto Rico.
- (b) Except as otherwise approved by the NREL Subcontract Administrator, the Subcontractor shall not include in the subcontract price any amount for duties on supplies specifically identified in the subcontract schedule to be accorded duty-free entry.
- (c) Except as provided in paragraph (d) of this clause or elsewhere in this subcontract, the following procedures apply to supplies not identified in the subcontract schedule to be accorded duty-free entry:
 - (1) The Subcontractor shall notify the NREL Subcontract Administrator in writing of any purchase of foreign supplies (including, without limitation, raw materials, components, and intermediate assemblies) in excess of \$15,000 that are to be imported into the customs territory of the United States for delivery to NREL/the Government under this subcontract, either as end products or for incorporation into end products. The Subcontractor shall furnish the notice to the NREL Subcontract Administrator at least 20 calendar days before the importation. The notice shall identify the--
 - (i) Foreign supplies;
 - (ii) Estimated amount of duty; and (iii) Country of origin.
 - (2) The NREL Subcontract Administrator will determine whether any of these supplies should be accorded duty-free entry and will notify the Subcontractor within 10 calendar days after receipt of the Subcontractor's notification.
 - (3) Except as otherwise approved by the NREL Subcontract Administrator, the subcontract price shall be reduced by (or the allowable cost shall not include) the amount of duty that would be payable if the supplies were not entered duty-free.
- (d) The Subcontractor is not required to provide the notification under paragraph (c) of this clause for purchases of foreign supplies if--
 - (1) The supplies are identical in nature to items purchased by the Subcontractor or any lower-tier subcontractor in connection with its commercial business; and
 - (2) Segregation of these supplies to ensure use only on NREL/Government subcontracts containing duty-free entry provisions is not economical or feasible.
- (e) The Subcontractor shall claim duty-free entry only for supplies to be delivered to NREL/the Government under this subcontract, either as end products or incorporated into end products, and shall pay duty on supplies, or any portion of them, other than scrap, salvage, or competitive sale authorized by the NREL Subcontract Administrator, diverted to nongovernmental use.
- (f) NREL/the Government will execute any required duty-free entry certificates for supplies to be accorded duty-free entry and will assist the Subcontractor in obtaining duty-free entry for these supplies.
- (g) Shipping documents for supplies to be accorded duty-free entry shall consign the shipments to NREL/DOE in care of the Subcontractor and shall include the--
 - (1) Delivery address of the Subcontractor (or NREL/DOE, if appropriate);
 - (2) NREL's DOE prime contract number and the NREL subcontract number;
 - (3) Identification of carrier;
 - (4) Notation "UNITED STATES GOVERNMENT, _____ [agency], _____ Duty-free entry to be claimed pursuant to Item No(s) _____ [from Tariff subcontract

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schedules] _____, Harmonized Tariff subcontract schedules of the United States. Upon arrival of shipment at port of entry, District Director of Customs, please release shipment under 19 CFR part 142 and notify [*cognizant subcontract administration office*] for execution of Customs Forms 7501 and 7501-A and any required duty-free entry certificates.";

- (5) Gross weight in pounds (if freight is based on space tonnage, state cubic feet in addition to gross shipping weight); and
- (6) Estimated value in United States dollars.
- (h) The Subcontractor shall instruct the foreign supplier to--
 - (1) Consign the shipment as specified in paragraph (g) of this clause;
 - (2) Mark all packages with the words "UNITED STATES GOVERNMENT" and "NREL/DOE"; and
 - (3) Include with the shipment at least two copies of the bill of lading (or other shipping document) for use by the District Director of Customs at the port of entry.
- (i) The Subcontractor shall provide written notice to the NREL Subcontract Administrator immediately after notification by the NREL Subcontract Administrator that duty-free entry will be accorded foreign supplies or, for duty-free supplies identified in the subcontract schedule, upon award by the Subcontractor to the overseas supplier. The notice shall identify the--
 - (1) Foreign supplies;
 - (2) Country of origin;
 - (3) Subcontract number; and
 - (4) Subcontract schedule delivery date(s).
- (j) The Subcontractor shall include the substance of this clause in any lower-tier subcontract if--
 - (1) Supplies identified in the subcontract schedule to be accorded duty-free entry will be imported into the customs territory of the United States; or
Other foreign supplies in excess of \$15,000 may be imported into the customs territory of the United States.

RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUN 2008)

Derived from FAR 52.225-13 (JUN 2008)(FD)

(Applies to all subcontracts.)

- (a) Except as authorized by the Office of Foreign Assets Control (OFAC) in the Department of the Treasury, the Subcontractor shall not acquire, for use in the performance of this subcontract, any supplies or services if any proclamation, Executive order, or statute administered by OFAC, or if OFAC's implementing regulations at 31 CFR Chapter V, would prohibit such a transaction by a person subject to the jurisdiction of the United States.
- (b) Except as authorized by OFAC, most transactions involving Cuba, Iran, and Sudan are prohibited, as are most imports from Burma or North Korea, into the United States or its outlying areas. Lists of entities and individuals subject to economic sanctions are included in OFAC's List of Specially Designated Nationals and Blocked Persons at <http://www.treas.gov/offices/enforcement/ofac/sdn>. More information about these restrictions, as well as updates, is available in the OFAC's regulations at 31 CFR Chapter V and/or on OFAC's website at <http://www.treas.gov/offices/enforcement/ofac>.
- (c) The Subcontractor shall insert this clause, including this paragraph (c), in all lower-tier subcontracts.

INSURANCE-WORK ON A GOVERNMENT INSTALLATION (SPECIAL) (JAN 2009) AND ALTERNATE I – ARCHITECT/ENGINEER SUBCONTRACTS (JAN 2009)

Derived from FAR 52.228-5 (JAN 1997)

Applies to all subcontracts, except construction and design-build subcontracts, where the Subcontractor or lower-tier Subcontractors, and their employees, officers, agents, or other persons representing the Subcontractor, will perform work on NREL-operated facilities or Government-owned or -leased properties.

Alternate I applies to Architect/Engineer subcontracts.

- (a) The Subcontractor shall, at its own expense, maintain and keep in force during the entire performance period of this subcontract at least the kinds and minimum amounts of insurance required in this clause.

Insurance Type	Bodily Injury		Property Damage
	Each Person	Each Occurrence	
Workers' Compensation	As Required by Law	As Required by Law	N/A
Employer's Liability	\$1,000,000.00	\$1,000,000.00	N/A
General Liability	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00
Automobile Liability	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00

- (b) Before commencing work under this subcontract, the Subcontractor shall obtain the required insurance and shall maintain such required insurance for the entire period of performance of this subcontract. The Subcontractor shall immediately notify the NREL Subcontract Administrator in the event of any termination, cancellation, reduction, or other material change adversely affecting NREL's/Government's interest in the required insurance.
- (c) The Subcontractor shall insert the substance of this clause, including this Paragraph (c), in lower-tier subcontracts under this subcontract that require work on a NREL-operated facility, or Government-owned or -leased properties and shall require the lower-tier Subcontractors to provide and maintain the same kinds and minimum amounts of insurance required under this subcontract (exceptions to this requirement will require prior approval from the NREL Subcontract Administrator). The Subcontractor shall maintain a copy of all the lower-tier Subcontractors' proof of required insurance, and shall make copies available to the NREL Subcontract Administrator upon request.

ALTERNATE I

(When the subcontract includes architect/engineer services, replace paragraph (b) with the following paragraph (b) and add the following paragraph (d) to the clause.)

- (b) Before commencing work under this subcontract, the Subcontractor shall provide the NREL Subcontract Administrator with written proof that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Alliance for Sustainable Energy, LLC and the Government's interest shall not be effective—

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- (1) For such period as the laws of the state in which this subcontract is to be performed prescribe; or
- (2) Until thirty (30) days after the insurer or the Subcontractor gives written notice to the NREL Subcontract Administrator, whichever period is longer.

The Subcontractor shall immediately notify the NREL Subcontract Administrator in the event of any termination, cancellation, reduction or other material change adversely affecting the Alliance for Sustainable Energy, LLC and the Government's interest in the required insurance.

- (d) The Subcontractor shall, at its own expense, provide and maintain at least the kinds and minimum amounts of Architect/Engineer Professional Liability and Errors and Omissions insurance required in this clause. Architect/Engineer Professional Liability and Errors and Omissions insurance shall be provided and maintained during the entire performance of the subcontract and for five (5) years after the completion of the work. The Subcontractor shall flow down this insurance requirement to its lower-tier Subcontractors providing Architect/Engineer professional services. Such flow down to lower-tiers shall not be construed to relieve the Subcontractor from its obligations under this clause.

Insurance Type		
	Per Claim	Aggregate Claims
Architect/Engineer Professional Liability and Errors and Omissions	\$1,000,000.00	\$1,000,000.00

LIMITATION OF COST (APR 1984)

Derived from FAR 52.232-20 (APR 1984)

Applies to fully funded cost type subcontracts.

- (a) The parties estimate that performance of this subcontract, exclusive of any fee, will not cost NREL more than—
 - (1) The estimated cost specified in the subcontract schedule or,
 - (2) If this is a cost sharing subcontract, NREL's share of the estimated cost specified in the subcontract schedule.

The Subcontractor agrees to use its best efforts to perform the work specified in the subcontract schedule and all obligations under this subcontract within the estimated cost, which, if this is a cost sharing subcontract, includes both NREL's and the Subcontractor's share of the cost.
- (b) The Subcontractor shall notify the NREL Subcontract Administrator in writing whenever it has reason to believe that—
 - (1) The costs the Subcontractor expects to incur under this subcontract in the next sixty (60) days, when added to all costs previously incurred, will exceed seventy-five (75) percent of the estimated cost specified in the subcontract schedule; or
 - (2) The total cost for the performance of this subcontract, exclusive of any fee, will be either greater or substantially less than had been previously estimated.
- (c) As part of the notification, the Subcontractor shall provide the NREL Subcontract Administrator a revised estimate of the total cost of performing this subcontract.
- (d) Except as required by other provisions of this subcontract, specifically citing and stated to be an exception to this clause—
 - (1) NREL is not obligated to reimburse the Subcontractor for cost incurred in excess of—
 - (i) The estimated cost specified in the subcontract schedule; or,
 - (ii) If this is a cost sharing subcontract, the estimated cost to NREL specified in the subcontract schedule; and
 - (2) The Subcontractor is not obligated to continue performance under this subcontract (including actions under the Termination clause of this subcontract) or otherwise incur costs in excess of the estimated cost specified in the subcontract schedule, until the NREL Subcontract Administrator—
 - (ii) Notifies the Subcontractor in writing that the estimated cost has been increased and
 - (iii) Provides a revised estimated total cost of performing this subcontract. If this is a cost sharing subcontract, the increase shall be allocated in accordance with the formula specified in the subcontract schedule.
- (e) No notice, communication, or representation in any form other than that specified in subparagraph (d)(2) above, or from any person other than the NREL Subcontract Administrator, shall affect this subcontract's estimated cost to NREL. In the absence of the specified notice, NREL is not obligated to reimburse the Subcontractor for any costs in excess of the estimated cost or, if this is a cost sharing subcontract, for any costs in excess of the estimated cost to NREL specified in the subcontract schedule, whether those excess costs were incurred during the course of the subcontract or as a result of termination.
- (f) If the estimated cost specified in the subcontract schedule is increased, any costs the Subcontractor incurs before the increase that are in excess of the previously

- estimated cost shall be allowable to the same extent as if incurred afterward, unless the NREL Subcontract Administrator issues a termination or other notice directing that the increase is solely to cover termination or other specified expenses.
- (g) Change orders shall not be considered an authorization to exceed the estimated cost to NREL specified in the subcontract schedule, unless they contain a statement increasing the estimated cost.
 - (h) If this subcontract is terminated or the estimated cost is not increased, NREL and the Subcontractor shall negotiate an equitable distribution of all property produced or purchased under the subcontract, based upon the share of costs incurred by each.

LIMITATION OF FUNDS (APR 1984)

Derived from FAR 52.232-22 (APR 1984)

Applies to incrementally funded cost type subcontracts.

- (a) The parties estimate that performance of this subcontract will not cost NREL more than—
- (1) The estimated cost specified in the subcontract schedule; or,
 - (2) If this is a cost sharing subcontract, NREL's share of the estimated cost specified in the subcontract schedule.
- The Subcontractor agrees to use its best efforts to perform the work specified in the subcontract schedule and all obligations under this subcontract within the estimated cost, which, if this is a cost sharing subcontract, includes both NREL's and the Subcontractor's share of the cost.
- (b) The subcontract schedule specifies the amount presently available for payment by NREL and allotted to this subcontract, the items covered, NREL's share of the cost if this is a cost sharing subcontract, and the period of performance it is estimated the allotted amount will cover. The parties contemplate that NREL will allot additional funds incrementally to the subcontract up to the full estimated cost to NREL specified in the subcontract schedule, exclusive of any fee. The Subcontractor agrees to perform, or have performed, work on the subcontract up to the point at which the total amount paid and payable by NREL under the subcontract approximates but does not exceed the total amount actually allotted by NREL to the subcontract.
- (c) The Subcontractor shall notify the NREL Subcontract Administrator in writing whenever it has reason to believe that the costs it expects to incur under this subcontract in the next sixty (60) days, when added to all costs previously incurred, will exceed seventy-five (75) percent of—
- (1) The total amount so far allotted to the subcontract by NREL; or,
 - (2) If this is a cost sharing subcontract, the amount then allotted to the subcontract by NREL plus the Subcontractor's corresponding share.
- The notice shall state the estimated amount of additional funds required to continue performance for the period specified in the subcontract schedule.
- (d) Sixty (60) days before the end of the period specified in the subcontract schedule, the Subcontractor shall notify the NREL Subcontract Administrator in writing of the estimated amount of additional funds, if any, required to continue timely performance under the subcontract or for any further period specified in the subcontract schedule or otherwise agreed upon, and when the funds will be required.
- (e) If, after notification, additional funds are not allotted by the end of the period specified in the subcontract schedule or another agreed upon date, upon the Subcontractor's written request the NREL Subcontract Administrator will terminate this subcontract on that date in accordance with the provisions of the Termination clause of this subcontract. If the Subcontractor estimates that the funds available will allow it to continue to discharge its obligations beyond that date, it may specify a later date in its request, and the NREL Subcontract Administrator may terminate this subcontract on that later date.
- (f) Except as required by other provisions of this subcontract, specifically citing and stated to be an exception to this clause—
- (1) NREL is not obligated to reimburse the Subcontractor for costs incurred in excess of the total amount allotted by NREL to this subcontract; and

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- (2) The Subcontractor is not obligated to continue performance under this subcontract (including actions under the Termination clause of this subcontract) or otherwise incur costs in excess of—
- (ii) The amount then allotted to the subcontract by NREL; or
 - (iii) If this is a cost sharing subcontract, the amount then allotted by NREL to the subcontract plus the Subcontractor's corresponding share.
- Until the NREL Subcontract Administrator notifies the Subcontractor in writing that the amount allotted by NREL has been increased and specifies an increased amount, which shall then constitute the total amount allotted by NREL to this subcontract.
- (g) The estimated cost shall be increased to the extent that—
- (1) The amount allotted by NREL; or,
 - (2) If this is a cost sharing subcontract, the amount then allotted by NREL to the subcontract plus the Subcontractor's corresponding share.
- Exceeds the estimated cost specified in the subcontract schedule. If this is a cost sharing subcontract, the increase shall be allocated in accordance with the formula specified in the subcontract schedule.
- (h) No notice, communication, or representation in any form other than that specified in paragraph (f)(2) above, or from any person other than the NREL Subcontract Administrator, shall affect the amount allotted by NREL to this subcontract. In the absence of the specified notice, NREL is not obligated to reimburse the Subcontractor for any costs in excess of the total amount allotted by NREL to this subcontract, whether incurred during the course of the subcontract or as a result of termination.
- (i) When and to the extent that the amount allotted by NREL to the subcontract is increased, any costs the Subcontractor incurs before the increase that are in excess of—
- (1) The amount previously allotted by NREL; or,
 - (2) If this is a cost sharing subcontract, the amount previously allotted by NREL to the subcontract plus the Subcontractor's corresponding share.
- Shall be allowable to the same extent as if incurred afterward, unless the NREL Subcontract Administrator issues a termination or other notice and directs that the increase is solely to cover termination or other specified expenses.
- (j) Change orders shall not be considered an authorization to exceed the amount allotted by NREL specified in the subcontract schedule, unless they contain a statement increasing the amount allotted.
- (k) Nothing in this clause shall affect the right of NREL to terminate this subcontract. If this subcontract is terminated, NREL and the Subcontractor shall negotiate an equitable distribution of all property produced or purchased under the subcontract, based upon the costs incurred by each.
- (l) If NREL does not allot sufficient funds to allow completion of the work, the Subcontractor is entitled to a percentage of the fee specified in the subcontract schedule equaling the percentage of completion of the work contemplated by this subcontract.

ASSIGNMENT OR TRANSFER (MAY 2014) (SPECIAL OCT 2008)

Derived from FAR 52.232-24 (MAY 2014)

Applies to all subcontracts.

- (a) Except as expressly authorized in writing by the NREL Subcontract Administrator, this subcontract or any interest therein or claim under this subcontract shall not be assigned or transferred by the Subcontractor.
- (b) In the event of any authorization of assignment or transfer, the parties shall file written notice together with a true copy of the instrument of the assignment or transfer with the NREL Subcontract Administrator. Such assignment or transfer shall cover all amounts payable under the subcontract not already paid, shall not be made to more than one party, and shall not be subject to further assignment or transfers.
- (c) When directed by DOE, the Prime Contractor, may assign or transfer all its rights and obligations under this subcontract to DOE or its designee.

**PAYMENT BY ELECTRONIC FUNDS TRANSFER – SYSTEM FOR AWARD MANAGEMENT
(NOV 2016)**

Derived from FAR 52.232-33 (JUL 2013)

(Applies to all subcontracts where lower-tier Subcontractor is a small business concern.)

- (a) Method of payment.
 - (1) All payments by NREL under this subcontract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term “EFT” refers to the funds transfer and may also include the payment information transfer.
 - (2) In the event NREL is unable to release one or more payments by EFT, the subcontractor agrees to either—
 - (ii) Accept payment by check or some other mutually agreeable method of payment; or
 - (iii) Request NREL to extend the payment due date until such time as NREL can make payment by EFT (but see paragraph (d) of this clause).
- (b) Subcontractor's EFT information. NREL shall make payment to the subcontractor using the EFT information contained in the Representations and Certifications and NREL ACH Banking Information form submitted with the offer. Information provided to NREL in these documents shall be consistent with that entered in the Government's System for Award Management (SAM) database. In the event that the EFT information changes, the subcontractor shall be responsible for providing the updated information in updated Representations and Certifications submitted to the subcontract administrator and to the SAM database.
- (c) Mechanisms for EFT payment. NREL may make payment by EFT through either the Automated Clearing House (ACH) network. Suspension of payment. If the subcontractor's EFT information is incorrect, then NREL need not make payment to the subcontractor under this subcontract until correct EFT information is provided in Representations and Certifications, the NREL ACH Banking Information form and entered into the SAM database; and any invoice request shall be deemed not to be a proper invoice for the purpose of prompt payment under this subcontract. The prompt payment terms of the subcontract regarding notice of an improper invoice and delays in accrual of interest penalties apply.
- (d) Liability for uncompleted or erroneous transfers.
 - (1) If an uncompleted or erroneous transfer occurs because NREL used the subcontractor's EFT information incorrectly, NREL remains responsible for—
 - (i) Making a correct payment;
 - (ii) Paying any prompt payment penalty due; and
 - (iii) Recovering any erroneously directed funds.
 - (2) If an uncompleted or erroneous transfer occurs because the subcontractor's EFT information was incorrect, and—
 - (ii) If the funds are no longer under the control of the NREL Accounts Payable office, NREL is deemed to have made payment and the subcontractor is responsible for recovery of any erroneously directed funds; or
 - (iii) If the funds remain under the control of the NREL Accounts Payable office, NREL shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

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- (e) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this subcontract if, payment is on or before the payment due date, provided the specified payment date is a valid date under the payment terms of the subcontract.
- (f) No EFT assignment of claims is allowable under this subcontract.
- (g) Liability for change of EFT information by financial agent. NREL is not liable for errors resulting from changes to EFT information made by the subcontractor's financial agent.
- (h) Payment information. The NREL Accounts Payable office shall forward to the subcontractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to NREL's payment processing contractor. NREL may request the subcontractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the NREL payment office is capable of executing. However, NREL does not guarantee that any particular format or method of delivery is available and retains the latitude to use the format and delivery method most convenient to NREL. If NREL makes payment by check in accordance with paragraph (a) of this clause, NREL shall mail the payment information to the remittance address contained in the subcontractor's Representations and Certifications and the subcontract.

UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS (JUN 2013)

Derived from FAR 52.232-39 (JUN 2013)

(Applies to all subcontracts where any supply or service acquired is subject to any End User License Agreement.)

- (a) Except as stated in paragraph (b) of this clause, when any supply or service acquired under this subcontract is subject to any End User License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, that includes any clause requiring NREL/the Government to indemnify the Subcontractor or any person or entity for damages, costs, fees, or any other loss or liability that would create an Anti-Deficiency Act violation (31 U.S.C. 1341), the following shall govern:
 - (1) Any such clause is unenforceable against NREL/the Government.
 - (2) Neither NREL/the Government nor any Government authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an “I agree” click box or other comparable mechanism (e.g., “click-wrap” or “browse-wrap” agreements), execution does not bind NREL/the Government or any Government authorized end user to such clause.
 - (3) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.
- (b) Paragraph (a) of this clause does not apply to indemnification by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulations and procedures.

**PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS LOWER-TIER
SUBCONTRACTORS (DEC 2013)**

Derived from FAR 52.232-40 (FD)

(Applies to all subcontracts where lower-tier Subcontractor is a small business concern.)

- (a) Upon receipt of accelerated payments from the NREL/Government, the Contractor shall make accelerated payments to its small business Subcontractors under this subcontract, to the maximum extent practicable and prior to when such payment is otherwise required under the applicable subcontract or lower-tier subcontract, after receipt of a proper invoice and all other required documentation from the small business Subcontractor.
- (b) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.
- (c) Include the substance of this clause, including this paragraph (c), in all lower-tier subcontracts with small business concerns, including lower-tier subcontracts with small business concerns for the acquisition of commercial items.

PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS AND SET OFF FOR HAZARDOUS MATERIALS RESPONSE, CLEANUP, AND DISPOSAL (NOV 2008)

Derived from FAR 52.236-9 (APR 1984)

(Applies to all subcontracts and purchase orders where the Subcontractor or lower-tier Subcontractors, and their employees, officers, agents, or other persons representing the Subcontractor, will enter onto NREL-operated facilities or government-owned or -leased properties.)

- (a) The Subcontractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this subcontract. The Subcontractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during subcontract performance, or by the careless operation of equipment, or by workmen, the Subcontractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the NREL Subcontract Administrator.
- (b) The Subcontractor shall protect from damage all existing improvements and utilities—
 - (1) At or near the work site, and
 - (2) On adjacent property of a third party, the locations of which are made known to or should be known by the Subcontractor.
- (c) The Subcontractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this subcontract or failure to exercise reasonable care in performing the work. If the Subcontractor fails or refuses to repair the damage promptly, the NREL Subcontract Administrator may have the necessary work performed and charge the cost to the Subcontractor.
- (d) The Subcontractor shall be responsible for reasonable costs associated with NREL-directed emergency response, cleanup, and disposal of hazardous material, chemical, or petroleum spills caused by the Subcontractor or any of its lower-tier Subcontractors during performance of work required under this subcontract. Upon determination of reasonable costs to be back charged to the Subcontractor resulting from such hazardous material spills, the NREL Subcontract Administrator shall provide the Subcontractor with written notice of the work performed and the costs to be charged to the Subcontractor. The back charge shall be set off against the subcontract price and the subcontract shall be modified in writing. NREL has the right to set off such costs against any amount payable to the Subcontractor whether or not in connection with this subcontract.
- (e) The rights and remedies of NREL/Government in this clause are in addition to any other rights and remedies provided by law or under this subcontract.

**PROTECTION OF NREL/GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
(APR 1984)**

Derived from FAR 52.237-2 (APR 1984)

(Applies to service subcontracts not involving construction to be performed on Government-owned or -leased facility.)

The Subcontractor shall use reasonable care to avoid damaging existing buildings, equipment, and vegetation on the NREL/Government installation. If the Subcontractor's failure to use reasonable care causes damage to any of this property, the Subcontractor shall replace or repair the damage at no expense to NREL/the Government as the NREL Subcontract Administrator directs. If the Subcontractor fails or refuses to make such repair or replacement, the Subcontractor shall be liable for the cost, which may be deducted from the subcontract price.

NOTICE OF INTENT TO DISALLOW COSTS (APR 1984)

Derived from FAR 52.242-1

(Applies to cost reimbursement type subcontracts.)

- (a) Notwithstanding any other clause of this subcontract—
 - (1) The NREL Subcontract Administrator may at any time issue to the Subcontractor a written notice of intent to disallow specified costs incurred or planned for incurrence under this subcontract that have been determined not to be allowable under the contract terms; and
 - (2) The Subcontractor may, after receiving a notice under subparagraph (1) above, submit a written response to the NREL Subcontract Administrator, with justification for allowance of the costs. If the Subcontractor does respond within sixty (60) days, the NREL Subcontract Administrator shall, within sixty (60) days of receiving the response, either make a written withdrawal of the notice or issue a written decision.
- (b) Failure to issue a notice under this Notice of Intent to Disallow Costs clause shall not affect the NREL/Government's rights to take exception to incurred costs.

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BANKRUPTCY (JUL 1995)

Derived from FAR 52.242-13

(Applies to all subcontracts.)

In the event the Subcontractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Subcontractor agrees to furnish, by certified mail or electronic commerce method authorized by the subcontract, written notification of the bankruptcy to the NREL Subcontract Administrator responsible for administering the subcontract. This notification shall be furnished within five (5) days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of other NREL subcontract numbers and Government contract numbers and contracting offices for all NREL/Government subcontracts and contracts against which final payment has not been made. This obligation remains in effect until final payment under this subcontract.

SUSPENSION OF WORK (APR 1984)

Derived from FAR 52.242-14

(Applies to construction and architect-engineer subcontracts.)

- (a) The NREL Subcontract Administrator may order the Subcontractor, in writing, to suspend, delay, or interrupt all or any part of the work of this subcontract for the period of time that the NREL Subcontract Administrator determines appropriate for the convenience of NREL/Government.
- (b) If the performance of all or any part of the work is, for any unreasonable period of time, suspended, delayed, or interrupted—
 - (1) By an act of the NREL Subcontract Administrator in the administration of this subcontract; or
 - (2) By the NREL Subcontract Administrator's failure to act within the time specified in this subcontract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this subcontract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the subcontract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Subcontractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this subcontract.
- (c) A claim under this clause shall not be allowed—
 - (1) For any costs incurred more than twenty (20) days before the Subcontractor shall have notified the NREL Subcontract Administrator in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and
 - (2) Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the subcontract.

STOP WORK ORDER (AUG 1989) (SPECIAL-COMMERCIAL ITEMS) (FEB 2009)

Derived from FAR 52.242-15 (AUG 1989)

(Applies to all subcontracts or purchase orders.)

- (a) The NREL Subcontract Administrator may, at any time, by written order to the Subcontractor, require the Subcontractor to stop all or any part of the work called for by this subcontract for a period of up to ninety (90) days, as determined appropriate by the NREL Subcontract Administrator, after the order is delivered to the Subcontractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Subcontractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of up to ninety (90) days, as determined appropriate by the NREL Subcontract Administrator, after a stop-work is delivered to the Subcontractor, or within any extension of that period to which the parties shall have agreed, the NREL Subcontract Administrator shall either—
 - (1) Cancel the stop-work order; or
 - (2) Terminate the work covered by the order as provided in the Default or the Termination clause of this subcontract.
- (b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Subcontractor shall resume work. The NREL Subcontract Administrator shall make an equitable adjustment and the subcontract shall be modified, in writing, accordingly, if—
 - (1) The stop-work order results in an increase in the time required for, or in the Subcontractor's cost properly allocable to, the performance of any part of this subcontract; and
 - (2) The Subcontractor asserts its right to the adjustment within thirty (30) days after the end of the period of work stoppage provided that, if the NREL Subcontract Administrator decides the facts justify the action, the NREL Subcontract Administrator may receive and act upon the claim submitted at any time before final payment under this subcontract.
- (c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of NREL/Government, the NREL Subcontract Administrator shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
- (d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the NREL Subcontract Administrator shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

STOP WORK ORDER (AUG 1989) AND ALTERNATE I (APR 1984) (COST REIMBURSEMENT)

Derived from FAR 52.242-15 (AUG 1989)

Applies to all subcontracts.

Alternate I applies to cost type subcontracts.

- (a) The NREL Subcontract Administrator may, at any time, by written order to the Subcontractor, require the Subcontractor to stop all or any part of the work called for by this subcontract for a period of up to ninety (90) days, as determined appropriate by the NREL Subcontract Administrator, after the order is delivered to the Subcontractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Subcontractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of up to ninety (90) days, as determined appropriate by the NREL Subcontract Administrator, after a stop-work is delivered to the Subcontractor, or within any extension of that period to which the parties shall have agreed, the NREL Subcontract Administrator shall either—
 - (1) Cancel the stop-work order; or
 - (2) Terminate the work covered by the order as provided in the Default or the Termination clause of this subcontract.
- (b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Subcontractor shall resume work. The NREL Subcontract Administrator shall make an equitable adjustment and the subcontract shall be modified, in writing, accordingly, if—
 - (1) The stop-work order results in an increase in the time required for, or in the Subcontractor's cost properly allocable to, the performance of any part of this subcontract; and
 - (2) The Subcontractor asserts its right to the adjustment within thirty (30) days after the end of the period of work stoppage provided that, if the NREL Subcontract Administrator decides the facts justify the action, the NREL Subcontract Administrator may receive and act upon the claim submitted at any time before final payment under this subcontract.
- (c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of NREL/Government, the NREL Subcontract Administrator shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
- (d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the NREL Subcontract Administrator shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

ALTERNATE I (APR 1984)

If this clause is inserted in a cost reimbursement subcontract, substitute in paragraph (a) (2) the words, "the Termination clause of this subcontract" for the words "the Default, or the Termination for Convenience of NREL/Government clause of this subcontract." In paragraph (b) substitute the words "an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the subcontract that may be affected" for the words, "an equitable adjustment in the delivery subcontract schedule or subcontract price, or both."

CHANGES - TIME-AND-MATERIALS OR LABOR-HOURS (SEP 2000)

Derived from FAR 52.243-3

(Applies to time and materials and labor hours and expenses subcontracts.)

- (a) The NREL Subcontract Administrator may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this subcontract in any one or more of the following:
 - (1) Description of services to be performed.
 - (2) Time of performance (i.e., hours of the day, days of the week, etc.).
 - (3) Place of performance or the services
 - (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for NREL/Government in accordance with the drawings, designs, or specifications.
 - (5) Method of shipment or packing of supplies.
 - (6) Place of delivery.
 - (7) Amount of NREL/Government-furnished property.
- (b) If any change causes an increase or decrease in any hourly rate, the ceiling price, or the time required for performance of any part of the work under this subcontract, whether or not changed by the order, or otherwise affects any other terms and conditions of this subcontract, the NREL Subcontract Administrator shall make an equitable adjustment in any one or more of the following and will modify the subcontract accordingly:
 - (1) Ceiling price.
 - (2) Hourly rates.
 - (3) Delivery subcontract schedule.
 - (4) Other affected terms.
- (c) The Subcontractor must assert its right to an adjustment under this clause within thirty (30) days from the date of receipt of the written order. However, if the NREL Subcontract Administrator decides that the facts justify it, the NREL Subcontract Administrator may receive and act upon a proposal submitted before final payment of the subcontract.
- (d) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause excuses the Subcontractor from proceeding with the subcontract as changed.

LOWER-TIER SUBCONTRACTS (OCT 2010) INCORPORATING ALTERNATE I (JUN 2007)

Derived from FAR 52.244-2 (OCT 2010)

Applies to all cost type subcontracts. Applies to letter, fixed price, time and material, and labor hour subcontracts exceeding \$150,000.

- (a) Definitions.
 - (1) "Approved purchasing system," as used in this clause, means a Subcontractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).
 - (2) "Consent to lower-tier subcontract," as used in this clause, means the NREL Subcontract Administrator's written consent for the Subcontractor to enter into a particular lower-tier subcontract.
 - (3) "Lower-tier subcontract," as used in this clause, means any contract, as defined in FAR Subpart 2.1, entered into by a lower-tier Subcontractor to furnish supplies or services for performance of the subcontract or a lower-tier subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.
- (b) When this clause is included in a fixed price type subcontract, consent to lower-tier subcontracts is required only on unpriced subcontract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) of this clause.
- (c) If the Subcontractor does not have an approved purchasing system, consent to lower-tier subcontract is required for any lower-tier subcontract that—
 - (1) Is of the cost reimbursement, time and materials, or labor hour type; or
 - (2) Is fixed price and exceeds the simplified acquisition threshold or five (5) percent of the total estimated cost of the subcontract.
- (d) If the Subcontractor has an approved purchasing system, the Subcontractor nevertheless shall obtain the NREL Subcontract Administrator's written consent before placing any of the lower-tier subcontracts identified in the subcontract schedule.
- (e) (1) The Subcontractor shall notify the NREL Subcontract Administrator reasonably in advance of placing any lower-tier subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:
 - (ii) A description of the supplies or services to be lower-tier subcontracted.
 - (iii) Identification of the type of lower-tier subcontract to be used.
 - (iv) Identification of the proposed lower-tier Subcontractor.
 - (v) The proposed lower-tier subcontract price.
 - (vi) The lower-tier Subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other subcontract provisions.
 - (vii) The lower-tier Subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this subcontract.
 - (viii) A negotiation memorandum reflecting—
 - (A) The principal elements of the lower-tier subcontract price negotiations;
 - (B) The most significant considerations controlling establishment of initial or revised prices;

- (C) The reason cost or pricing data were or were not required;
 - (D) The extent, if any, to which the Subcontractor did not rely on the lower-tier Subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;
 - (E) The extent to which it was recognized in the negotiation that the lower-tier Subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Subcontractor and the lower-tier Subcontractor; and the effect of any such defective data on the total price negotiated;
 - (F) The reasons for any significant difference between the Subcontractor's price objective and the price negotiated; and
 - (G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.
- (2) If the Subcontractor has an approved purchasing system and consent is not required under paragraph (c) or (d) of this clause, the Subcontractor nevertheless shall notify the NREL Subcontract Administrator reasonably in advance of entering into any:
- (i) cost plus-fixed-fee subcontract, or
 - (ii) fixed price subcontract that exceeds either the simplified acquisition threshold or 5 percent of the total estimated cost of this contract. The notification shall include the information required by paragraphs (e)(1)(i) through (e)(1)(iv) of this clause.
- (f) Unless the consent or approval specifically provides otherwise, neither consent by the NREL Subcontract Administrator to any lower-tier subcontract nor approval of the Subcontractor's purchasing system shall constitute a determination—
- (1) Of the acceptability of any lower-tier subcontract terms or conditions;
 - (2) Of the allowability of any cost under this subcontract; or
 - (3) To relieve the Subcontractor of any responsibility for performing this subcontract.
- (g) No lower-tier subcontract or modification thereof placed under this subcontract shall provide for payment on a cost plus a percentage of cost basis, and any fee payable under cost reimbursement type lower-tier subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).
- (h) The Subcontractor shall give the NREL Subcontract Administrator immediate written notice of any action or suit filed and prompt notice of any claim made against the Subcontractor by any lower-tier Subcontractor or vendor that, in the opinion of the Subcontractor, may result in litigation related in any way to this subcontract, with respect to which the Subcontractor may be entitled to reimbursement from NREL/Government.
- (i) NREL/Government reserves the right to review the Subcontractor's purchasing system as set forth in FAR Subpart 44.3.
- (j) Paragraphs (d) and (f) of this clause do not apply to any of the lower-tier subcontracts identified in the subcontract schedule that were evaluated during negotiations.

SUBCONTRACTS FOR COMMERCIAL ITEMS (APR 2020)

Derived from **FAR 52.244-6** (NOV 2017) (FD)

(Derivation applies to subcontracts for supplies or services for commercial items and lower-tier subcontracts for supplies or services for commercial items.)

- (a) Definitions. As used in this clause—
 - “Commercial item and commercially available off-the-shelf item” have the meanings contained Federal Acquisition Regulation 2.101, Definitions.
 - “Lower-tier Subcontract” includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Subcontractor or lower-tier subcontractors.
- (b) To the maximum extent practicable, the Subcontractor shall incorporate, and require its lower-tier subcontractors at all tiers to incorporate, commercial items or non-developmental items as components of items to be supplied under this subcontract.
- (c)
 - (1) **The following clauses are incorporated by reference** and shall be inserted in lower-tier subcontracts for commercial items:
 - (i) **52.203-13**, Contractor Code of Business Ethics and Conduct (Oct 2015) (41 U.S.C. 3509), if the subcontract exceeds \$5.5 million and has a performance period of more than 120 days. In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the NREL Subcontract Administrator.
 - (ii) RESERVED.
 - (iii) **52.203-19**, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (Jan 2017).
 - (iv) **52.204-21**, Basic Safeguarding of Covered Contractor Information Systems (Jun 2016), other than subcontracts for commercially available off-the-shelf items, if flow down is required in accordance with paragraph (c) of FAR clause 52.204-21.
 - (v) **52.219-8**, Utilization of Small Business Concerns (Nov 2016) (15 U.S.C. 637(d)(2) and (3)), if the subcontract offers further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$700,000 (\$1.5 million for construction of any public facility), the lower-tier subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.
 - (vi) **52.204-23**, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (Jul 2018) (Section 1634 of Pub. L. 115-91).
 - (vii) **52.204-25**, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (Aug 2019) (Section 889(a)(1)(A) of Pub. L. 115-232).
 - (viii) **52.222-21**, Prohibition of Segregated Facilities (Apr 2015).
 - (ix) **52.222-26**, Equal Opportunity (Sep 2016) (E.O. 11246).
 - (x) **52.222-35**, Equal Opportunity for Veterans (Oct 2015) (38 U.S.C. 4212(a));
 - (xi) **52.222-36**, Equal Opportunity for Workers with Disabilities (Jul 2014) (29 U.S.C. 793).
 - (xii) **52.222-37**, Employments Reports on Veterans (Feb 2016) (38 U.S.C. 4212).
 - (xiii) **52.222-40**, Notification of Employee Rights Under the National Labor Relations Act (Dec 2010) (E.O. 13496), if flow down is required in accordance with paragraph (f) of FAR clause 52.222-40.

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- (xiv) (A) **52.222-50**, Combating Trafficking in Persons (Mar 2015) (22 U.S.C. chapter 78 and E.O. 13627).
- (B) **Alternate I** (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- (xv) **52.222-55**, Minimum Wages under Executive Order 13658 (Dec 2015), if flowdown is required in accordance with paragraph (k) of FAR clause 52.222-55.
- (xvi) **52.222-62**, Paid Sick Leave Under Executive Order 13706 (Jan 2017) (E.O. 13706), if flow down is required in accordance with paragraph (m) of FAR clause 52.222-62.
- (xvii)
 - (A) **52.224-3**, Privacy Training (Jan 2017) (5 U.S.C. 552a) if flow down is required in accordance with 52.224-3(f).
 - (B) **Alternate I** (Jan 2017) of 52.224-3, if flow down is required in accordance with 52.224-3(f) and the agency specifies that only its agency-provided training is acceptable.
- (xviii) **52.225-26**, Contractors Performing Private Security Functions Outside the United States (Oct 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).
- (xix) **52.232-40**, Providing Accelerated Payments to Small Business Subcontractors (Dec 2013), if flow down is required in accordance with paragraph (c) of FAR clause 52.232-40.
- (xx) **52.247-64**, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. App. 1241 and 10 U.S.C. 2631), if flow down is required in accordance with paragraph (d) of FAR clause 52.247-64.
- (2) While not required, the Subcontractor may flow down to lower-tier subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.
- (d) The Subcontractor shall include the terms of this clause, including this paragraph (d), in lower-tier subcontracts awarded under this subcontract.

INSPECTION OF TIME AND MATERIAL AND LABOR-HOUR (MAY 2001)

Derived from FAR 52.246-6

(Applies to time and materials and labor hour and expenses subcontracts.)

- (a) Definitions.
 - (1) "Subcontractor's managerial personnel," as used in this clause, means any of the Subcontractor's directors, officers, managers, superintendents, or equivalent representatives who have supervision or direction of—
 - (ii) All or substantially all of the Subcontractor's business;
 - (iii) All or substantially all of the Subcontractor's operation at any one plant or separate location where the subcontract is being performed; or
 - (iv) A separate and complete major industrial operation connected with the performance of this subcontract.
 - (2) "Materials," as used in this clause, includes data when the subcontract does not include the Warranty of Data clause.
- (b) The Subcontractor shall provide and maintain an inspection system acceptable to NREL/Government covering the material, fabricating methods, work, and services under this subcontract. Complete records of all inspection work performed by the Subcontractor shall be maintained and made available to the NREL/Government during subcontract performance and for as long afterwards as the subcontract requires.
- (c) NREL/Government has the right to inspect and test all materials furnished and services performed under this subcontract, to the extent practicable at all places and times, including the period of performance, and in any event before acceptance. NREL/Government may also inspect the plant or plants of the Subcontractor or any lower-tier Subcontractor engaged in subcontract performance. NREL/Government shall perform inspections and tests in a manner that will not unduly delay the work.
- (d) If NREL/Government performs inspection(s) or test(s) on the premises of the Subcontractor or a lower-tier Subcontractor, the Subcontractor shall furnish, and shall require lower-tier Subcontractors to furnish, all reasonable facilities and assistance for the safe and convenient performance of these duties.
- (e) Unless otherwise specified in the subcontract, NREL shall accept or reject services and materials at the place of delivery as promptly as practicable after delivery, and they shall be presumed accepted sixty (60) days after the date of delivery, unless accepted earlier.
- (f) At any time during subcontract performance, but not later than six (6) months (or such other time as may be specified in the subcontract) after acceptance of the services or materials last delivered under this subcontract, NREL may require the Subcontractor to replace or correct services or materials that at time of delivery failed to meet subcontract requirements. Except as otherwise specified in paragraph (h) of this clause, the cost of replacement or correction shall be determined under the Payments Under Time-and-Materials and Labor-Hour and Expenses Subcontracts clause, but the "hourly rate" for labor hours incurred in the replacement or correction shall be reduced to exclude that portion of the rate attributable to profit. The Subcontractor shall not tender for acceptance materials and services required to be replaced or corrected without disclosing the former requirement for replacement or correction, and, when required, shall disclose the corrective action taken.
- (g) (1) If the Subcontractor fails to proceed with reasonable promptness to perform required replacement or correction, and if the replacement or correction can

be performed within the ceiling price (or the ceiling price as increased by NREL), NREL may—

- (ii) By subcontract or otherwise, perform the replacement or correction, charge to the Subcontractor any increased cost, or deduct such increased cost from any amounts paid or due under this subcontract; or
 - (iii) Terminate this subcontract for default.
- (2) Failure to agree to the amount of increased cost to be charged to the Subcontractor shall be a dispute.
- (h) Notwithstanding paragraphs (f) and (g) above, NREL may at any time require the Subcontractor to remedy by correction or replacement, without cost to NREL, any failure by the Subcontractor to comply with the requirements of this subcontract, if the failure is due to—
- (1) Fraud, lack of good faith, or willful misconduct on the part of the Subcontractor's managerial personnel; or
 - (2) The conduct of one or more of the Subcontractor's employees selected or retained by the Subcontractor after any of the Subcontractor's managerial personnel has reasonable grounds to believe that the employee is habitually careless or unqualified.
- (i) This clause applies in the same manner and to the same extent to corrected or replacement materials or services as to materials and services originally delivered under this subcontract.
- (j) The Subcontractor has no obligation or liability under this subcontract to correct or replace materials and services that at time of delivery do not meet subcontract requirements, except as provided in this clause or as may be otherwise specified in the subcontract.
- (k) Unless otherwise specified in the subcontract, the Subcontractor's obligation to correct or replace NREL/Government-furnished property shall be governed by the clause pertaining to NREL/Government property.

COMMERCIAL BILL OF LADING NOTATIONS (OCT 2009)

Derived from FAR 52.247-1 (FEB 2006) (FD)

(Applies to all subcontracts where transportation is a direct charge to the subcontract.) (Direct and actual transportation cost is a separate item in the invoice (e.g. free on board (F.O.B.) origin) and not included in the delivered price (e.g. F.O.B. destination).

When the NREL Subcontract Administrator authorizes supplies to be shipped on a commercial bill of lading and the Subcontractor will be reimbursed these transportation costs as direct allowable costs, the Subcontractor shall ensure before shipment is made that the commercial shipping documents are annotated with the following notation:

“Transportation is for the U.S. Department of Energy, acting through its National Renewable Energy Laboratory (NREL) and the actual total transportation charges paid to the carrier(s) by the consignor or consignee shall be reimbursed by NREL on behalf of the Government pursuant to cost reimbursement contract No. DE-AC36-08GO28308. This may be confirmed by contacting the DOE, Golden Service Center, 15013 Denver West Parkway, Golden, CO 80401.”

SUBMISSION OF COMMERCIAL TRANSPORTATION DOCUMENTS FOR AUDIT (FEB 2006)

Derived from FAR 52.247-67 (FEB 2006) (FD)

(Applies to all cost type subcontracts and cost type lower-tier subcontracts where reimbursement of shipment costs is a direct charge to the subcontract.)

- (a) The Subcontractor shall submit to the address identified below, for prepayment audit, transportation documents on which the United States will assume freight charges that were paid—
 - (1) By the Subcontractor under a cost reimbursement subcontract; and
 - (2) By a first-tier Subcontractor under a cost reimbursement lower-tier subcontract thereunder.
- (b) Cost reimbursement Subcontractors shall only submit for audit those bills of lading with freight shipment charges exceeding \$100. Bills under \$100 shall be retained on-site by the Subcontractor and made available for on-site audits. This exception only applies to freight shipment bills and is not intended to apply to bills and invoices for any other transportation services.
- (c) Subcontractors shall submit the above referenced transportation documents to the NREL Subcontract Administrator.

**TERMINATION (COST REIMBURSEMENT) (MAY 2004) MODIFIED BY DEAR 970.4905-1,
ALTERNATE IV (TIME AND MATERIAL OR LABOR HOUR) (SEP 1996)**

Derived from FAR 52.249-6 (FD)

(Applies to cost type subcontracts except research and development subcontracts with an educational or nonprofit institution on a no-fee basis.)

(Alternate IV applies to Time and Material and Labor Hour and Expenses subcontracts.)

- (a) NREL may terminate performance of work under this subcontract in whole or, from time to time, in part, if—
 - (1) The NREL Subcontract Administrator determines that a termination is in the NREL/Government's interest; or
 - (2) The Subcontractor defaults in performing this subcontract and fails to cure the default within ten (10) days (unless extended by the NREL Subcontract Administrator) after receiving a notice specifying the default.
 - (ii) "Default," as used in this clause, includes failure to make progress in the work so as to endanger performance.
- (b) The NREL Subcontract Administrator shall terminate by delivering to the Subcontractor a Notice of Termination specifying whether termination is for default of the Subcontractor or for convenience of NREL/Government, the extent of termination, and the effective date. If, after termination for default, it is determined that the Subcontractor was not in default or that the Subcontractor's failure to perform or to make progress in performance is due to causes beyond the control and without the fault or negligence of the Subcontractor as set forth in the Excusable Delays clause, the rights and obligations of the parties will be the same as if the termination was for the convenience of the NREL/Government.
- (c) After receipt of a Notice of Termination, and except as directed by the NREL Subcontract Administrator, the Subcontractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:
 - (1) Stop work as specified in the notice.
 - (2) Place no further lower-tier subcontracts or orders (referred to as lower-tier subcontracts in this clause), except as necessary to complete the continued portion of the subcontract.
 - (3) Terminate all lower-tier subcontracts to the extent they relate to the work terminated.
 - (4) Assign to NREL, as directed by the NREL Subcontract Administrator, all right, title, and interest of the Subcontractor under the lower-tier subcontracts terminated, in which case NREL shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.
 - (5) With approval or ratification to the extent required by the NREL Subcontract Administrator, settle all outstanding liabilities and termination settlement proposals arising from the termination of lower-tier subcontracts, the cost of which would be reimbursable in whole or in part, under this subcontract; approval or ratification will be final for purposes of this clause.
 - (6) Transfer title to the Government (if not already transferred) and, as directed by the NREL Subcontract Administrator, deliver to the NREL—
 - (ii) The fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated;

- (iii) The completed or partially completed plans, drawings, information, and other property that, if the subcontract had been completed, would be required to be furnished to the NREL; and
 - (iv) The jigs, dies, fixtures, and other special tools and tooling acquired or manufactured for this subcontract, the cost of which the Subcontractor has been or will be reimbursed under this subcontract.
- (7) Complete performance of the work not terminated.
- (8) Take any action that may be necessary, or that the NREL Subcontract Administrator may direct, for the protection and preservation of the property related to this subcontract that is in the possession of the Subcontractor and in which the NREL/Government has or may acquire an interest.
- (9) Use its best efforts to sell, as directed or authorized by the NREL Subcontract Administrator, any property of the types referred to in paragraph (c)(6) of this clause; provided, however, that the Subcontractor
 - (ii) Is not required to extend credit to any purchaser and
 - (iii) May acquire the property under the conditions prescribed by, and at prices approved by, the NREL Subcontract Administrator. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by NREL under this subcontract, credited to the price or cost of the work, or paid in any other manner directed by the NREL Subcontract Administrator.
- (d) The Subcontractor shall submit complete termination inventory subcontract schedules no later than one hundred twenty (120) days from the effective date of termination, unless extended in writing by the NREL Subcontract Administrator upon written request of the Subcontractor within this one hundred twenty (120) day period.
- (e) After expiration of the plant clearance period as defined in Subpart [49.001](#) of the Federal Acquisition Regulation, the Subcontractor may submit to the NREL Subcontract Administrator a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the NREL Subcontract Administrator. The Subcontractor may request the NREL/Government to remove those items or enter into an agreement for their storage. Within fifteen (15) days, NREL/Government will accept the items and remove them or enter into a storage agreement. The NREL Subcontract Administrator may verify the list upon removal of the items, or if stored, within forty five (45) days from submission of the list, and shall correct the list, as necessary, before final settlement.
- (f) After termination, the Subcontractor shall submit a final termination settlement proposal to the NREL Subcontract Administrator in the form and with the certification prescribed by the NREL Subcontract Administrator. The Subcontractor shall submit the proposal promptly, but no later than one (1) year from the effective date of termination, unless extended in writing by Subcontract Administrator upon written request of the Subcontractor within this one (1) year period. However, if the NREL Subcontract Administrator determines that the facts justify it, a termination settlement proposal may be received and acted on after one (1) year or any extension. If the Subcontractor fails to submit the proposal within the time allowed, the NREL Subcontract Administrator may determine, on the basis of information available, the amount, if any, due the Subcontractor because of the termination and shall pay the amount determined.
- (g) Subject to paragraph (f) of this clause, the Subcontractor and the NREL Subcontract Administrator may agree on the whole or any part of the amount to be paid (including

- an allowance for fee) because of the termination. The subcontract shall be amended, and the Subcontractor paid the agreed amount.
- (h) If the Subcontractor and the NREL Subcontract Administrator fail to agree in whole or in part on the amount of costs and/or fee to be paid because of the termination of work, the NREL Subcontract Administrator shall determine, on the basis of information available, the amount, if any, due the Subcontractor, and shall pay that amount, which shall include the following:
- (1) All costs reimbursable under this subcontract, not previously paid, for the performance of this subcontract before the effective date of the termination, and those costs that may continue for a reasonable time with the approval of or as directed by the NREL Subcontract Administrator; however, the Subcontractor shall discontinue those costs as rapidly as practicable.
 - (2) The cost of settling and paying termination settlement proposals under terminated lower-tier subcontracts that are properly chargeable to the terminated portion of the contract if not included in paragraph (h)(1) of this clause.
 - (3) The reasonable costs of settlement of the work terminated, including—
 - (ii) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
 - (iii) The termination and settlement of lower-tier subcontracts (excluding the amounts of such settlements); and
 - (iv) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory. If the termination is for default, no amounts for the preparation of the Subcontractor's termination settlement proposal may be included.
 - (4) A portion of the fee payable under the subcontract, determined as follows:
 - (ii) If the subcontract is terminated for the convenience of the NREL/Government, the settlement shall include a percentage of the fee equal to the percentage of completion of work contemplated under the contract, but excluding lower-tier subcontract effort included in lower-tier Subcontractors' termination proposals, less previous payments for fee.
 - (iii) If the subcontract is terminated for default, the total fee payable shall be such proportionate part of the fee as the total number of articles (or amount of services) delivered to and accepted by NREL is to the total number of articles (or amount of services) of a like kind required by the subcontract.
 - (5) If the settlement includes only fee, it will be determined under paragraph (h) (4) of this clause.
- (i) The cost principles and procedures in Part 31 of the Federal Acquisition Regulation, as supplemented in subpart 970.31 of the Department of Energy Acquisition Regulation, in effect on the date of this subcontract, shall govern all costs claimed, agreed to, or determined under this clause.
- (j) The Subcontractor shall have the right of appeal, under the Disputes clause, from any determination made by the NREL Subcontract Administrator under paragraph (f), (h), or (l) of this clause, except that if the Subcontractor failed to submit the termination settlement proposal within the time provided in paragraph (f) and failed to request a time extension, there is no right of appeal. If the NREL Subcontract

- Administrator has made a determination of the amount due under paragraph (f), (h) or (l) of this clause, NREL shall pay the Subcontractor—
- (1) The amount determined by the NREL Subcontract Administrator if there is no right of appeal or if no timely appeal has been taken; or
 - (2) The amount finally determined on an appeal.
- (k) In arriving at the amount due the Subcontractor under this clause, there shall be deducted—
- (1) All unliquidated advance or other payments to the Subcontractor, under the terminated portion of this subcontract;
 - (2) Any claim which the NREL/Government has against the Subcontractor under this subcontract; and
 - (3) The agreed price for, or the proceeds of sale of materials, supplies, or other things acquired by the Subcontractor or sold under this clause and not recovered by or credited to NREL/Government.
- (l) The Subcontractor and NREL Subcontract Administrator must agree to any equitable adjustment in fee for the continued portion of the subcontract when there is a partial termination. The NREL Subcontract Administrator shall amend the subcontract to reflect the agreement.
- (m) (1) NREL/Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Subcontractor for the terminated portion of the subcontract, if the NREL Subcontract Administrator believes the total of these payments will not exceed the amount to which the Subcontractor will be entitled.
- (2) If the total payments exceed the amount finally determined to be due, the Subcontractor shall repay the excess upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Subcontractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Subcontractor's termination settlement proposal because of retention or other disposition of termination inventory until ten (10) days after the date of the retention or disposition, or a later date determined by the NREL Subcontract Administrator because of the circumstances.
- (n) The provisions of this clause relating to fee are inapplicable if this subcontract does not include a fee.

ALTERNATE IV (SEP 1996).

If the subcontract is a time-and-material or labor-hour subcontract, substitute the following paragraphs (h) and (l) for paragraphs (h) and (l) of the basic clause:

- (a) If the Subcontractor and the NREL Subcontract Administrator fail to agree in whole or in part on the amount to be paid because of the termination of work, the NREL Subcontract Administrator shall determine, on the basis of information available, the amount, if any, due the Subcontractor and shall pay the amount determined as follows:
- (1) If the termination is for the convenience of NREL/Government, include—
 - (i) An amount for direct labor hours (as defined in the subcontract schedule) determined by multiplying the number of direct labor hours expended before the effective date of termination by the hourly rate(s) in the subcontract schedule, less any hourly rate payments already made to the Subcontractor;

- (ii) An amount (computed under the provisions for payment of materials) for material expenses incurred before the effective date of termination, not previously paid to the Subcontractor;
 - (iii) An amount for labor and material expenses computed as if the expenses were incurred before the effective date of termination, if they are reasonably incurred after the effective date, with the approval of or as directed by the NREL Subcontract Administrator; however, the Subcontractor shall discontinue these expenses as rapidly as practicable;
 - (iv) If not included in subdivision (h)(1)(i), (ii), or (iii) of this clause, the cost of settling and paying termination settlement proposals under terminated lower-tier subcontracts that are properly chargeable to the terminated portion of the subcontract; and
 - (v) The reasonable costs of settlement of the work terminated, including—
 - (A) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
 - (B) The termination and settlement of lower-tier subcontracts (excluding the amounts of such settlements); and
 - (C) Storage, transportation, and other costs incurred, reasonably necessary for the protection or disposition of the termination inventory.
- (2) If the termination is for default of the Subcontractor, include the amounts computed under paragraph (h)(1) of this clause but omit—
- (ii) Any amount for preparation of the Subcontractor's termination settlement proposal; and
 - (iii) The portion of the hourly rate allocable to profit for any direct labor hours expended in furnishing materials and services not delivered to and accepted by NREL.
- * * * * *
- (b) If the termination is partial, the Subcontractor may file with the NREL Subcontract Administrator a proposal for an equitable adjustment of price(s) for the continued portion of the subcontract. The NREL Subcontract Administrator shall make any equitable adjustment agreed upon. Any proposal by the Subcontractor for an equitable adjustment under this clause shall be requested within ninety (90) days from the effective date of termination, unless extended in writing by the NREL Subcontract Administrator.

EXCUSABLE DELAYS (APR 1984)

Derived from FAR 52.249-14 (APR 1984)

Applies to cost type subcontracts for supplies, services, construction, and research and development on a fee basis. Also applies to time and materials, labor hour and expenses subcontracts.

- (a) Except for defaults of Subcontractors at any tier, the Subcontractor shall not be in default because of any failure to perform this subcontract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Subcontractor. Examples of these causes are—
 - (1) Acts of God or of the public enemy;
 - (2) Acts of the Government in either its sovereign or contractual capacity;
 - (3) Fires;
 - (4) Floods;
 - (5) Epidemics;
 - (6) Quarantine restrictions;
 - (7) Strikes;
 - (8) Freight embargoes; and
 - (9) Unusually severe weather.In each instance, the failure to perform must be beyond the control and without the fault or negligence of the Subcontractor. "Default" includes failure to make progress in the work so as to endanger performance.
- (b) If the failure to perform is caused by the failure of a Subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Subcontractor and lower-tier Subcontractor, and without the fault or negligence of either, the Subcontractor shall not be deemed to be in default, unless—
 - (1) The lower-tier subcontracted supplies or services were obtainable from other sources;
 - (2) The NREL Subcontract Administrator ordered the Subcontractor in writing to purchase these supplies or services from the other source; and
 - (3) The Subcontractor failed to comply reasonably with this order.
- (c) Upon request of the Subcontractor, the NREL Subcontract Administrator shall ascertain the facts and extent of the failure. If the NREL Subcontract Administrator determines that any failure to perform results from one or more of the causes above, the delivery subcontract schedule shall be revised, subject to the rights of NREL/Government under the termination clause of this subcontract.

WHISTLEBLOWER PROTECTION FOR SUBCONTRACTOR EMPLOYEES (DEC 2000)

Derived from DEAR 952.203-70 (FD)

(Applies to subcontracts for work directly related to activities at NREL-operated facilities or Government-owned or -leased properties.)

- (a) The Subcontractor shall comply with the requirements of "DOE Contractor Employee Protection Program" at 10 CFR Part 708 for work performed on behalf of NREL directly related to activities at DOE-owned or -leased sites.
- (b) The Subcontractor shall insert or have inserted the substance of this clause, including this paragraph (b) in subcontracts at all tiers, for subcontracts involving work performed on behalf of NREL directly related to activities at DOE-owned or -leased sites.

SENSITIVE FOREIGN NATIONS CONTROLS (SPECIAL) (MAR 2011)

Derived from DEAR 952.204-71 (MAR 2011) (FD)

(Applies if the subcontract involves making unclassified information about nuclear technology available to sensitive foreign nations.)

- (a) In connection with any activities in the performance of this subcontract, the Subcontractor agrees to comply with the "Sensitive Foreign Nations Controls" requirements attached to this subcontract, relating to those countries, which may from time to time, be identified to the Subcontractor by written notice as sensitive foreign nations. The Subcontractor shall have the right to terminate its performance under this subcontract upon at least 60 days' prior written notice to the NREL Subcontract Administrator if the Subcontractor determines that it is unable, without substantially interfering with its polices or without adversely impacting its performance to continue performance of the work under this subcontract as a result of such notification. If the Subcontractor elects to terminate performance, the provisions of this subcontract regarding termination for the convenience of NREL/the Government shall apply.
- (b) The provisions of this clause shall be included in any lower-tier subcontracts which may involve making unclassified information about nuclear technology available to sensitive foreign nations.

PUBLIC AFFAIRS (DEC 2000) (SPECIAL OCT 2011)

Derived from DEAR 952.204-75 (DEC 2000)

(Applies to subcontracts where the Subcontractor is required to release unclassified information related to NREL/DOE policies, programs, and activities.)

- (a) The Subcontractor must cooperate with NREL in releasing general, non-technical information concerning the existence of this subcontract, the identity of the parties, and the character and scope of the Subcontractor's effort to the public and news media, including but not limited to NREL/DOE policies, programs, and activities. The responsibilities under this clause must be accomplished through coordination with the NREL Subcontract Administrator and appropriate NREL public affairs personnel prior to the release of general, non-technical information.
- (b) The Subcontractor is responsible for the development, planning, and coordination of proactive approaches for the timely dissemination of general, non-technical information regarding NREL/DOE activities onsite and offsite, including, but not limited to, operations and programs. Proactive public affairs programs may utilize a variety of communication media, including public workshops, meetings or hearings, open houses, newsletters, press releases, conferences, audio/visual presentations, speeches, forums, tours, and other appropriate stakeholder interactions.
- (c) The Subcontractor's internal procedures must ensure that all releases of general, non-technical information to the public and news media are coordinated through, and approved by, a management official at an appropriate level within the Subcontractor's organization.
- (d) The Subcontractor must comply with the NREL Subcontract Administrator's direction for obtaining advance clearances on oral, written, and audio/visual informational material prepared for public dissemination or use.
- (e) Unless prohibited by law, the Subcontractor must notify the NREL Subcontract Administrator and appropriate NREL public affairs personnel of communications or contacts with Members of Congress relating to the effort performed under the subcontract.
- (f) The Subcontractor must notify the NREL Subcontract Administrator and appropriate NREL public affairs personnel of activities or situations that may attract regional or national news media attention and of non-routine inquiries from national news media relating to the effort performed under the subcontract.
- (g) In releases of general, non-technical information to the public and news media, the Subcontractor must fully and accurately identify the Subcontractor's relationship to NREL/DOE and fully and accurately credit NREL/DOE for its role in funding programs and projects resulting in scientific, technical, and other achievements.
- (h) The release or publication of information of a scientific or technical nature generated under this subcontract is governed by the provisions of Appendix C of this subcontract.

COMPUTER SECURITY (AUG 2006) (SPECIAL JAN 2019)

Derived from DEAR 952.204-77 (AUG 2006)

(Applies to all subcontracts where Subcontractor employees have access to computers owned, leased, or operated on behalf of DOE.)

- (a) Definitions.
 - (1) Computer means desktop computers, portable computers, computer networks (including the DOE Network and local area networks at or controlled by DOE organizations), network devices, automated information systems, and or other related computer equipment owned by, leased, or operated on behalf of the DOE.
 - (2) Individual means an NREL/DOE [Sub]Contractor or lower-tier subcontractor employee, or any other person who has been granted access to a DOE computer or to information on a DOE computer and does not include a member of the public who sends an email message to a DOE computer or who obtains information available to the public on DOE Web sites.
- (b) Access to DOE computers. A Subcontractor shall not allow an individual to have access to information on a DOE computer unless—
 - (1) The individual has acknowledged in writing that the individual has no expectation of privacy in the use of a DOE computer; and
 - (2) The individual has consented in writing to permit access by an authorized investigative agency to any DOE computer used during the period of that individual's access to information on a DOE computer, and for a period of three years thereafter.
- (c) No expectation of privacy. Notwithstanding any other provision of law (including any provision of law enacted by the Electronic Communications Privacy Act of 1986), no individual using a DOE computer shall have any expectation of privacy in the use of that computer.
- (d) Written records. The Subcontractor is responsible for maintaining written records for itself and lower-tier subcontractors demonstrating compliance with the provisions of paragraph (b) of this section. The Subcontractor agrees to provide access to these records to the DOE, its authorized agents, or the NREL Subcontract Administrator upon request.
- (e) Lower-tier Subcontracts. The Subcontractor shall insert this clause, including this paragraph (e), in lower-tier subcontracts under this subcontract that may provide access to computers owned, leased, or operated on behalf of the DOE.

FOREIGN TRAVEL (JUN 2010) (SPECIAL JUN 2012)

Derived from DEAR 952.247-70 (JUN 2010) and DOE Order 551.1C

(Applies to all subcontracts where foreign travel is required.)

- (a) Subcontractor foreign travel shall be conducted pursuant to the requirements contained in Department of Energy (DOE) Order 551.1C, Official Foreign Travel, or its successor in effect at the time of award.
- (b) All foreign travel (one trip or multiple trips), if required in performance of the subcontract, shall be subject to prior approval of the Department of Energy and an approved Electronic Country Clearance (eCC) from the U.S. Department of State.
- (c) Foreign travel is defined as travel from the United States (including Alaska, Hawaii, the Commonwealth of Puerto Rico and the Northern Mariana Islands, and the territories and possessions of the United States) to a foreign country and return, travel between foreign countries, by persons, including foreign nationals, whose salaries or travel expenses or both will ultimately be funded in whole or in part by NREL/DOE. Foreign travel also includes travel funded by non-NREL/DOE sources for which the traveler represents NREL/DOE or conducts business on behalf of NREL/DOE or the U.S. Government.
- (d) Request for approval of foreign travel shall be submitted to NREL on an NREL Foreign Travel Request form minimum of forty-five (45) days prior to the planned departure date.

ACCESS TO AND OWNERSHIP OF RECORDS (OCT 2014)

Derived from DEAR 970.5204-3 (OCT 2014) (FD)

(Applies to cost type subcontracts exceeding \$2M and cost type subcontracts involving complex or hazardous work that is to be performed on a Government-owned or-leased facility and the clause Integration of Environment, Safety, and Health into Work Planning and Execution (48 CFR 970.5223-1), or similar clause, is applicable.)

(Applies to cost type subcontracts where the DOE Contracting Officer or the NREL Subcontract Administrator has specifically notified the Subcontractor that the subcontract is or involves a critical task related to the Prime Contract.)

- (a) Government-owned records. Except as provided in paragraph (b) of this clause, all records acquired or generated by the Subcontractor in its performance of this subcontract, including records series described within the subcontract as Privacy Act systems of records, shall be the property of the Government and shall be maintained in accordance with 36 Code of Federal Regulations (CFR), Chapter XII, – Subchapter B, “Records Management.” The Subcontractor shall ensure records classified as Privacy Act system of records are maintained in accordance with FAR 52.224-2 “Privacy Act.”
- (b) Subcontractor-owned records. The following records are considered the property of the Subcontractor and are not within the scope of paragraph (a) of this clause.
- (1) Employment-related records (such as worker’s compensation files; employee relations records, records on salary and employee benefits; drug testing records, labor negotiation records; records on ethics, employee concerns; records generated during the course of responding to allegations of research misconduct; records generated during other employee related investigations conducted under an expectation of confidentiality; employee assistance program records; and personnel and medical/health-related records and similar files), and non-employee patient medical/health-related records, except those records described by the subcontract as being operated and maintained by the Subcontractor in Privacy Act systems of records.
 - (2) Confidential Subcontractor financial information, internal corporate governance records and correspondence between the Subcontractor and other segments of the Subcontractor located away from the DOE facility (i.e., the Subcontractor's corporate headquarters);
 - (3) Records relating to any procurement action by the Subcontractor, except for records that under 48 CFR 970.5232-3 are described as the property of the Government; and
 - (4) Legal records, including legal opinions, litigation files, and documents covered by the attorney-client and attorney work product privileges; and
 - (5) The following categories of records maintained pursuant to the technology transfer clause of this subcontract:
 - (i) Executed license agreements, including exhibits or appendices containing information on royalties, royalty rates, other financial information, or commercialization plans, and all related documents, notes and correspondence.
 - (ii) The Subcontractor's protected Cooperative Research and Development Agreement (CRADA) information and appendices to a CRADA that contain licensing terms and conditions, or royalty or royalty rate information.
 - (iii) Patent, copyright, mask work, and trademark application files and related Subcontractor invention disclosures, documents and correspondence, where the Subcontractor has elected rights or has permission to assert rights and

Standard Terms and Conditions for Commercial Items (Goods and Services)

Subcontracts and Purchase Orders

Firm Fixed-Price, Fixed Unit-Price Level of Effort, Labor Hour and Time and Materials

has not relinquished such rights or turned such rights over to NREL/the Government.

- (c) Subcontract completion or termination. Upon subcontract completion or termination, the Subcontractor shall ensure final disposition of all Government-owned records to a Federal Record Center, the National Archives and Records Administration, to a successor Subcontractor, its designee, or other destinations, as directed by the NREL Subcontract Administrator. Upon the request of NREL/the Government, the Subcontractor shall provide either the original Subcontractor-owned records or copies of the records identified in paragraph (b) of this clause, to DOE or its designees, including successor subcontractors. Upon delivery, title to such records shall vest in DOE or its designees, and such records shall be protected in accordance with applicable federal laws (including the Privacy Act) as appropriate. If the Subcontractor chooses to provide its original Subcontractor-owned records to NREL/the Government or its designee, the Subcontractor shall retain future rights to access and copy such records as needed.
- (d) Inspection, copying, and audit of records. All records acquired or generated by the Subcontractor under this subcontract in the possession of the Subcontractor, including those described at paragraph (b) of this clause, shall be subject to inspection, copying, and audit by NREL/the Government or its designees at all reasonable times, and the Subcontractor shall afford NREL/the Government or its designees reasonable facilities for such inspection, copying, and audit; provided, however, that upon request by the DOE Contracting Officer or NREL Subcontract Administrator, the Subcontractor shall deliver such records to a location specified by the DOE Contracting Officer or the NREL Subcontract Administrator for inspection, copying, and audit. The Government or its designees shall use such records in accordance with applicable federal laws (including the Privacy Act), as appropriate.
- (c) Applicability. This clause applies to all records created, received and maintained by the Subcontractor without regard to the date or origination of such records including all records acquired from a predecessor Subcontractor.
- (d) Records maintenance and retention. The Subcontractor shall create, maintain, safeguard, and dispose of records in accordance with 36 Code of Federal Regulations (CFR), Chapter XII, - Subchapter B, "Records Management" and the National Archives and Records Administration (NARA) – approved Records Disposition Schedules. Records retention standards are applicable for all classes of records, whether or not the records are owned by the Government or the Subcontractor. The Government may waive application of the NARA-approved Records Disposition Schedules, if upon termination or completion of the subcontract, NREL/the Government exercises its right under paragraph (c) of this clause to obtain copies of records described in paragraph (b) and delivery of records described in paragraph (a) of this clause.
- (e) Lower-Tier Subcontracts.
- (1) The Subcontractor shall include the requirements of this clause in all lower-tier subcontracts that contain the Radiation Protection and Nuclear Criticality clause at 952.223-72, or whenever an on-site lower-tier subcontract scope of work (i) could result in potential exposure to: A) radioactive materials; B) beryllium; or C) asbestos or (ii) involves a risk associated with chronic or acute exposure to toxic chemicals or substances or other hazardous materials that can cause adverse health impacts, in accordance with 10 CFR part 851. In determining its flow-down responsibilities, the Subcontractor shall include the requirements of this clause in all on-site lower-tier subcontracts where the scope of work is performed in: (A) Radiological Areas and/or Radioactive Materials Areas (as defined at 10 CFR

835.2); (B) areas where beryllium concentrations exceed or can reasonably expected to exceed action levels specified in 10 CRF 850; (C) an Asbestos Regulated area (as defined at 29 CFR 1926.1101 or 29 CFR1910.1001); or (D) a workplace where hazard prevention and abatement processes are implemented in compliance with 10 CFR 851.21 to specifically control potential exposure to toxic chemicals or substances or other hazardous materials that can cause long term health impacts.

- (2) The Subcontractor may elect to take on the obligations of the provisions of this clause in lieu of the lower-tier subcontractor, and maintain records that would otherwise be maintained by the lower-tier subcontractor.

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PRINTING (DEC 2000)

Derived from DEAR 970.5208-1 (FD)

(Applies to all subcontracts where printing is required as this term is defined in Title I of the U.S. Government Printing and Binding Regulations.)

- (a) To the extent that duplicating or printing services may be required in the performance of this subcontract, the Subcontractor shall provide or secure such services in accordance with the Government Printing and Binding Regulations, Title 44 of the U.S. Code, and DOE Directives relative thereto.
- (b) The term "Printing" includes the following processes: Composition, platemaking, presswork, binding, microform publishing, or the end items produced by such processes. Provided, however, that performance of a requirement under this subcontract involving the duplication of less than five thousand (5,000) copies of a single page, or no more than twenty-five thousand (25,000) units in the aggregate of multiple pages, will not be deemed to be printing.
- (c) Printing services not obtained in compliance with this guidance shall result in the cost of such printing being disallowed.
- (d) The Subcontractor shall include the substance of this clause in all lower-tier subcontracts hereunder which require printing (as that term is defined in Title I of the U.S. Government Printing and Binding Regulations).

INTEGRATION OF ENVIRONMENT, SAFETY, AND HEALTH INTO WORK PLANNING AND EXECUTION (NOV 2016)

Derived from DEAR 970.5223-1 (FD) (DEC 2000)

(Applies to all subcontracts where the Subcontractor or lower-tier Subcontractors and their employees, officers, agents, or other persons representing the Subcontractor will perform complex or hazardous work on NREL-operated facilities or Government-owned or –leased properties.)

- (a) For the purposes of this clause:
 - (1) “Safety’ encompasses environment, safety, and health, including pollution prevention and waste minimization; and
 - (2) ‘Employees” include lower-tier Subcontractor employees.
- (b) In performing work under this subcontract, the Subcontractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The Subcontractor shall exercise a degree of care commensurate with the work and the associated hazards. The Subcontractor shall ensure that management of environment, safety and health (ES&H) functions and activities becomes an integral but visible part of the Subcontractor’s work planning and execution processes. The Subcontractor shall, in the performance of work, ensure that:
 - (1) Line management is responsible for the protection of employees, the public, and the environment. Line management includes those Subcontractor and lower-tier Subcontractor employees managing or supervising employees performing work.
 - (2) Clear and unambiguous lines of authority and responsibility for ensuring ES&H are established and maintained at all organizational levels.
 - (3) Personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.
 - (4) Resources are effectively allocated to address ES&H, programmatic, and operational considerations. Protecting employees, the public, and the environment is a priority whenever activities are planned and performed.
 - (5) Before work is performed, the associated hazards are evaluated and an agreed-upon set of ES&H standards and requirements are established which, if properly implemented, provide adequate assurance that employees, the public, and the environment are protected from adverse consequences.
 - (6) Upon discovery of potential cultural resources, the Subcontractor shall stop work immediately and report to the NREL Project Manager. The Subcontractor shall not handle, move, or otherwise disturb items that are potential cultural resources, either on the ground surface or buried/unearthed below the ground surface. Items discovered remain the property of DOE and may not be removed from the site. The Subcontractor shall not alter, damage, or deconstruct existing structures on the National Register of Historic Places as identified by the NREL Project Manager.
 - (7) Administrative and engineering controls to prevent and mitigate hazards are tailored to the work being performed and associated hazards. Emphasis should be on designing the work and/or controls to reduce or eliminate the hazards and to prevent accidents and unplanned releases and exposures.
 - (8) The conditions and requirements to be satisfied for operations to be initiated and conducted are established and agreed-upon by NREL/Government and the Subcontractor. These agreed-upon conditions and requirements are

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requirements of the subcontract and binding upon the Subcontractor. The extent of documentation and level of authority for agreement shall be tailored to the complexity and hazards associated with the work and shall be established in a Safety Management System.

- (c) The Subcontractor shall manage and perform work in accordance with a documented Safety Management System (System) that fulfills all conditions in paragraph (b) of this clause at a minimum. Documentation of the System shall describe how the Subcontractor will:
 - (1) Define the scope of work;
 - (2) Identify and analyze hazards associated with the work;
 - (3) Develop and implement hazard controls;
 - (4) Perform work within controls; and
 - (5) Provide feedback on adequacy of controls and continue to improve safety management.
- (d) The System shall describe how the Subcontractor will establish, document, and implement safety performance objectives, performance measures, and commitments in response to NREL/DOE program and budget execution guidance while maintaining the integrity of the System. The System shall also describe how the Subcontractor will measure system effectiveness.
- (e) The Subcontractor shall submit to the NREL Subcontract Administrator documentation of its System for review and approval. Dates for submittal, discussions, and revisions to the System will be established by the NREL Subcontract Administrator. Guidance on the preparation, content, review, and approval of the System will be provided by the NREL Subcontract Administrator. On an annual basis, the Subcontractor shall review and update, for NREL's approval, its safety performance objectives, performance measures, and commitments consistent with and in response to NREL/DOE program and budget execution guidance and direction. Resources shall be identified and allocated to meet the safety objectives and performance commitments as well as maintain the integrity of the entire System. Accordingly, the System shall be integrated with the Subcontractor's business processes for work planning, budgeting, authorization, execution, and change control.
- (f) The Subcontractor shall comply with, and assist NREL/DOE in complying with, ES&H requirements of all applicable laws and regulations, and applicable directives identified in the clause of NREL's Prime Contract entitled "Laws, Regulations, and DOE Directives." The Subcontractor shall cooperate with Federal and non-Federal agencies having jurisdiction over ES&H matters under this subcontract.
- (g) The Subcontractor shall promptly evaluate and resolve any noncompliance with applicable ES&H requirements and the System. If the Subcontractor fails to provide resolution or, if at any time, the Subcontractor's acts or failure to act causes substantial harm or an imminent danger to the environment or health and safety of employees or the public, the NREL Subcontract Administrator may issue an order stopping work in whole or in part. Any stop work order issued by the NREL Subcontract Administrator under this clause (or issued by the Subcontractor to a lower-tier Subcontractor in accordance with paragraph (i) of this clause) shall be without prejudice to any other legal or contractual rights of NREL/Government. In the event that the NREL Subcontract Administrator issues a stop work order, an order authorizing the resumption of the work may be issued at the discretion of the NREL Subcontract Administrator. The Subcontractor shall not be entitled to an extension of time or additional fee or damages by reason of, or in connection with, any work stoppage ordered in accordance with this clause.

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- (h) Regardless of the performer of the work, the Subcontractor is responsible for compliance with the ES&H requirements applicable to this subcontract. The Subcontractor is responsible for flowing down the ES&H requirements applicable to this subcontract to subcontracts at any tier to the extent necessary to ensure the Subcontractor's compliance with the requirements.
- (i) The Subcontractor shall include a clause substantially the same as this clause in lower-tier subcontracts involving complex or hazardous work on site at an NREL operated facility or Government-owned or-leased properties. Such lower-tier subcontracts shall provide for the right to stop work under the conditions described in paragraph (g) of this clause. Depending on the complexity and hazards associated with the work, the Subcontractor may choose not to require the lower-tier Subcontractor to submit a Safety Management System for the Subcontractor's review and approval.

SUSTAINABLE ACQUISITION PROGRAM (NOV 2019)

Derived from **DEAR 970.5223-7 (OCT 2010) (FD)**

(Applies to subcontracts or purchase orders for supplies or services that support operation of NREL, exceed the Simplified Acquisition Threshold, and offer opportunities for the acquisition of energy efficient or environmentally sustainable supplies or services).

- (a) In the spirit of Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management, and Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, NREL is committed to managing its facilities in an environmentally preferable and sustainable manner that will promote the nature environment and protect the health and well being of its employees and Subcontractors. In the performance of providing products or services under this subcontract or purchase order, the Subcontractor shall provide products or services in a manner that promotes the natural environment, reduces greenhouse gas emissions and protects the health and well being of NREL employees, Subcontractor and visitors.
- (b) Green purchasing or sustainable acquisition has several interacting initiatives. The Subcontractor must comply with initiatives that are current as of the subcontract or purchase order award date. NREL may require compliance with revised initiatives from time to time. The initiatives important to Executive Orders associated with sustainable acquisition practices are explained on the following Government or Industry Internet Sites:
 - (1) Recycled Content Products are described at <http://epa.gov/cpg>
 - (2) Biobased Products are described at <http://www.biopreferred.gov/>
 - (3) Energy efficient products are at <http://energystar.gov/products> for Energy Star products
 - (4) Energy efficient products are at <http://www.femp.energy.gov/procurement> for FEMP designated products
 - (5) Environmentally preferable and energy efficient electronics including desktop computers, laptops and monitors are at <http://www.epeat.net> the Electronic Products Environmental Assessment Tool (EPEAT) the Green Electronics Council site
 - (6) Greenhouse gas emission inventories are required, including Scope 3 emissions which include contractor emissions. These are discussed at Section 13 of Executive Order 13514 which can be found at <http://www.archives.gov/federal-register/executive-orders/disposition.html>
 - (7) Non-Ozone Depleting Alternative Products are at <http://www.epa.gov/ozone/strathome.html>
 - (8) Water efficient plumbing products are at <http://epa.gov/watersense>The Subcontractor may request an equitable adjustment to the terms of its subcontract or purchase order using the procedures in the applicable Changes clause in the relevant Appendix B.
- (c) The clauses at FAR 52.223-2, Affirmative Procurement of Bio based Products under Service and Construction Contracts, 52.223-15, Energy Efficiency in Energy Consuming Products, and 52.223-17 Affirmative Procurement of EPA-Designated Items in Service and Construction Contracts, require the use of products that have bio based content, are energy efficient, or have recycled content. To the extent that the services provided by the Subcontractor require provision of any of the above types of products, the Subcontractor must provide the energy efficient and environmentally sustainable type of product unless that type of product—

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- (1) Is not available;
 - (2) Is not life cycle cost effective (or does not exceed 110% of the price of alternative items if life cycle cost data is unavailable), EPEAT is an example of lifecycle costs that have been analyzed by DOE and found to be acceptable at the silver and gold level;
 - (3) Does not meet performance needs; or,
 - (4) Cannot be delivered in time to meet a critical need.
- (d) In the performance of this subcontract, the Subcontractor shall also consider the best practices within the DOE Acquisition Guide, Chapter 23, Acquisition Considerations Regarding Federal Leadership in Environmental, Energy, and Economic Performance. This guide includes information concerning recycled content products, bio based products, energy efficient products, water efficient products, alternative fuels and vehicles, non-ozone depleting substances and other environmentally preferable products and services. This guide is available on the Internet at: <http://management.energy.gov/documents/AcqGuide23pt0Rev1.pdf>.
- (e) Reserved.
- (f) In complying with the requirements of paragraph (c) of this clause, the Subcontractor, working through the NREL Subcontract Administrator, shall coordinate its activities with and submit required reports to the NREL Sustainability Administrator.
- (g) The Subcontractor shall prepare and submit performance reports, if required, using prescribed NREL formats made available to the Subcontractor from the NREL Sustainability Administrator, on September 30 of the year of performance, on matters related to the acquisition of environmentally preferable and sustainable products and services. This is a material delivery under the subcontract or purchase order. Failure to perform this requirement may be considered a failure that endangers performance of this subcontract and may result in termination for default.
- (h) The Subcontractor will comply with the procedures in paragraphs (c) through (f) regarding the collection of all data necessary to generate the reports required under paragraphs (c) through (f), and submit the reports directly to the NREL Sustainability Administrator.
- The Subcontractor will advise the NREL Subcontract Administrator if it is unable to procure energy efficient and environmentally sustainable items and cite which of the reasons in paragraph (c) apply.
- The reports may be submitted at the conclusion of this subcontract or purchase order term provided that the delivery term is not multi-year in nature. If the delivery term is multi-year, the Subcontractor shall report its accomplishments for each fiscal year ending on September 30th in a manner and at a time or times acceptable to both parties. Failure to comply with these reporting requirements may be considered a breach of contract with attendant consequences.

COMPLIANCE WITH EXPORT CONTROL LAWS AND REGULATIONS (NOV 2015)

Derived from DEAR 970.5225-1 (NOV 2015)

(Applies to all subcontracts.)

- (a) The Subcontractor shall comply with all applicable U.S. export control laws and regulations.
- (b) The Subcontractor's responsibility to comply with all applicable laws and regulations exists independent of, and is not established or limited by, the information provided by this clause.
- (c) Nothing in the terms of this contract adds to, changes, supersedes, or waives any of the requirements of applicable Federal laws, Executive Orders, and regulations, including but not limited to—
 - (1) The Atomic Energy Act of 1954, as amended;
 - (2) The Arms Export Control Act (22 U.S.C. 2751 *et seq.*);
 - (3) The Export Administration Act of 1979 (50 U.S.C. app. 2401 *et seq.*), as continued under the International Emergency Economic Powers Act (Title II of Pub. L. 95-223, 91 Stat. 1626, October 28, 1977; 50 U.S.C. 1701 *et seq.*);
 - (4) Trading with the Enemy Act (50 U.S.C. App. 5(b), as amended by the Foreign Assistance Act of 1961);
 - (5) Assistance to Foreign Atomic Energy Activities (10 CFR part 810);
 - (6) Export and Import of Nuclear Equipment and Material (10 CFR part 110);
 - (7) International Traffic in Arms Regulations (ITAR) (22 CFR parts 120 through 130);
 - (8) Export Administration Regulations (EAR) (15 CFR parts 730 through 774); and
 - (9) Regulations administered by the Office of Foreign Assets Control (31 CFR parts 500 through 598).
- (d) In addition to the Federal laws and regulations cited above, National Security Decision Directive (NSDD) 189, National Policy on the Transfer of Scientific, Technical, and Engineering Information establishes a national policy that, to the maximum extent possible, the products of fundamental research shall remain unrestricted. NSDD 189 provides that no restrictions may be placed upon the conduct or reporting of federally funded fundamental research that has not received national security classification, except as provided in applicable U.S. statutes. As a result, contracts confined to the performance of unclassified fundamental research generally do not involve any export-controlled activities.
NSDD 189 does not take precedence over statutes. NSDD 189 does not exempt any research from statutes that apply to export controls such as the Atomic Energy Act, as amended; the Arms Export Control Act; the Export Administration Act of 1979, as amended; or the U.S. International Emergency Economic Powers Act; or the regulations that implement those statutes (*e.g.*, the ITAR, the EAR, 10 CFR part 110 and 10 CFR part 810). Thus, if items (*e.g.*, commodities, software or technologies) that are controlled by U.S. export control laws or regulations are used to conduct research or are generated as part of the research efforts, the export control laws and regulations apply to the controlled items.
- (e) The Subcontractor shall include the substance of this clause, including this paragraph (e), in all solicitations and lower-tier subcontracts.

ACCOUNTS, RECORDS, AND INSPECTION (DEC 2010) WITH ALTERNATE I (DEC 2000)

Derived from DEAR 970.5232-3

(Applies to subcontracts that include FAR 52.215-11, Price Reduction for Defective Cost or Pricing Data-Modifications.)

- (a) Accounts. The Subcontractor shall maintain a separate and distinct set of accounts, records, documents, and other evidence showing and supporting: all allowable costs incurred; collections accruing to the Subcontractor in connection with the work under this subcontract, other applicable credits, negotiated fixed amounts, and fee accruals under this subcontract; and the receipt, use, and disposition of all Government property coming into the possession of the Subcontractor under this subcontract. The system of accounts employed by the Subcontractor shall be satisfactory to NREL and in accordance with generally accepted accounting principles consistently applied.
- (b) Inspection and audit of accounts and records. All books of account and records relating to this subcontract shall be subject to inspection and audit by DOE or its designees in accordance with the provisions of Clause 970.5204-3, Access to and Ownership of Records, at all reasonable times, before and during the period of retention provided for in paragraph (d) of this clause, and the Subcontractor shall afford DOE proper facilities for such inspection and audit.
- (c) Audit of Subcontractors' records. The Subcontractor also agrees, with respect to any lower-tier subcontracts (including fixed-price or unit-price lower-tier subcontracts or purchase orders) where, under the terms of the lower-tier subcontract, costs incurred are a factor in determining the amount payable to the Subcontractor of any tier, to either conduct an audit of the lower-tier Subcontractor's costs or arrange for such an audit to be performed by the cognizant government audit agency through the NREL Subcontract Administrator.
- (d) Disposition of records. Except as agreed upon by NREL/Government and the Subcontractor, all financial and cost reports, books of account and supporting documents, system files, data bases, and other data evidencing costs allowable, collections accruing to the Subcontractor in connection with the work under this subcontract, other applicable credits, and fee accruals under this subcontract, shall be the property of the Government, and shall be delivered to NREL/Government or otherwise disposed of by the Subcontractor either as the NREL Subcontract Administrator/Contracting Officer may from time to time direct during the progress of the work or, in any event, as the NREL Subcontract Administrator/Contracting Officer shall direct upon completion or termination of this subcontract and final audit of accounts hereunder. Except as otherwise provided in this subcontract, including provisions of Clause 970.5204-3, Access to and Ownership of Records, all other records in the possession of the Subcontractor relating to this subcontract shall be preserved by the Subcontractor for a period of three years after final payment under this subcontract or otherwise disposed of in such manner as may be agreed upon by NREL/Government and the Subcontractor.
- (e) Reports. The Subcontractor shall furnish such progress reports and schedules, financial and cost reports, and other reports concerning the work under this subcontract as the NREL Subcontract Administrator/Contracting Officer may from time to time require.
- (f) Inspections. The DOE/NREL shall have the right to inspect the work and activities of the Subcontractor under this subcontract at such time and in such manner as it shall deem appropriate.

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- (g) Lower-tier Subcontracts. The Subcontractor further agrees to require the inclusion of provisions similar to those in paragraphs (a) through (g) and paragraph (h) of this clause in all lower-tier subcontracts (including fixed-price or unit-price subcontracts or purchase orders) entered into hereunder where, under the terms of the lower-tier subcontract, costs incurred are a factor in determining the amount payable to the lower-tier Subcontractor.
- (h) Comptroller general.
- (1) The Comptroller General of the United States, or an authorized representative, shall have access to and the right to examine any of the Subcontractor's or lower-tier Subcontractor's directly pertinent records involving transactions related to this subcontract or a lower-tier subcontract hereunder and to interview any current employee regarding such transactions.
 - (2) This paragraph may not be construed to require the Subcontractor or lower-tier Subcontractor to create or maintain any record that the Subcontractor or lower-tier Subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.
 - (3) Nothing in this subcontract shall be deemed to preclude an audit by the Government Accountability Office of any transaction under this subcontract.
- (i) Internal audit. The Subcontractor agrees to design and maintain an internal audit plan and an internal audit organization.
- (1) Upon subcontract award, the exercise of any subcontract option, or the extension of the subcontract, the Subcontractor must submit to the NREL Subcontract Administrator for approval an Internal Audit Implementation Design to include the overall strategy for internal audits. The Audit Implementation Design must describe—
 - (i) The internal audit organization's placement within the Subcontractor's organization and its reporting requirements;
 - (ii) The audit organization's size and the experience and educational standards of its staff;
 - (iii) The audit organization's relationship to the corporate entities of the Subcontractor;
 - (iv) The standards to be used in conducting the internal audits;
 - (v) The overall internal audit strategy of this subcontract, considering particularly the method of auditing costs incurred in the performance of the subcontract;
 - (vi) The intended use of external audit resources;
 - (vii) The plan for audit of lower-tier subcontracts, both pre-award and post-award; and
 - (viii) The schedule for peer review of internal audits by other Subcontractor internal audit organizations, or other independent third party audit entities approved by the NREL Subcontract Administrator.
 - (2) By each January 31 of the subcontract performance period, the Subcontractor must submit an annual audit report, providing a summary of the audit activities undertaken during the previous fiscal year. That report shall reflect the results of the internal audits during the previous fiscal year and the actions to be taken to resolve weaknesses identified in the Subcontractor's system of business, financial, or management controls.
 - (3) By each June 30 of the subcontract performance period, the Subcontractor must submit to the NREL Subcontract Administrator an annual audit plan for the activities to be undertaken by the internal audit organization during the

next fiscal year that is designed to test the costs incurred and Subcontractor management systems described in the internal audit design.

- (4) The NREL Subcontract Administrator may require revisions to documents submitted under paragraphs (i)(1), (i)(2), and (i)(3) of this clause, including the design plan for the internal audits, the annual report, and the annual internal audits.
- (j) Remedies. If at any time during subcontract performance, the NREL Subcontract Administrator determines that unallowable costs were claimed by the Subcontractor to the extent of making the Subcontractor's management controls suspect, or the Subcontractor's management systems that validate costs incurred and claimed suspect, the NREL Subcontract Administrator may, in his or her sole discretion, require the Subcontractor to cease using the special financial institution account in whole or with regard to specified accounts, requiring reimbursable costs to be claimed by periodic vouchering. In addition, the NREL Subcontract Administrator, where he or she deems it appropriate, may: Impose a penalty under 48 CFR 970.5242-1, Penalties for Unallowable Costs; require a refund; reduce the Subcontractor's otherwise earned fee; and take such other action as authorized in law, regulation, or this subcontract.

Alternate I (DEC 2000). As prescribed in 970.3270(a)(2), if the subcontract includes the clause at 48 CFR 52.215-11, Price Reduction for Defective Cost or Pricing Data—Modifications, the basic clause shall be modified as follows:

- (a) Paragraph (a) of the basic clause shall be modified by adding the words “or anticipated to be incurred” after the words “allowable costs incurred.”
- (g) Paragraph (g) of the basic clause shall be modified by adding the following: The Subcontractor further agrees to include an “Audit” clause, the substance of which is the “Audit” clause set forth at 48 CFR 52.215-2, in each lower-tier subcontract which does not include provisions similar to those in paragraph (a) through paragraph (g) and paragraph (h) of this clause, but which contains a “defective cost or pricing data” clause.

PENALTIES FOR UNALLOWABLE COSTS (AUG 2009)

Derived from DEAR 970.5242-1 (AUG 2009)

Applies to cost type subcontracts.

- (a) Subcontractors which include unallowable cost in a submission for settlement for cost incurred, may be subject to penalties.
- (b) If, during the review of a submission for settlement of cost incurred, the DOE Contracting Officer, through NREL, determines that the submission contains an expressly unallowable cost or a cost determined to be unallowable prior to the submission, the DOE Contracting Officer shall assess a penalty, through NREL.
- (c) Unallowable costs are either expressly unallowable or determined unallowable.
 - (1) An expressly unallowable cost is a particular item or type of cost which, under the express provisions of an applicable law, regulation, or this subcontract, is specifically named and stated to be unallowable.
 - (2) A cost determined unallowable is one which, for that Subcontractor—
 - (ii) Was subject to a DOE Contracting Officer's final decision and not appealed;
 - (iii) The Civilian Board of Contract Appeals or a court has previously ruled as unallowable; or
 - (iv) Was mutually agreed to be unallowable.
- (d) If the DOE Contracting Officer determines that a cost submitted by the Subcontractor in its submission for settlement of cost incurred is—
 - (1) Expressly unallowable, then the DOE Contracting Officer shall assess, through NREL, a penalty in an amount equal to the disallowed cost allocated to this subcontract plus interest on the paid portion of the disallowed cost. Interest, through NREL, shall be computed from the date of overpayment to the date of repayment using the interest rate specified by the Secretary of the Treasury pursuant to Pub. L. 92-41 (85 Stat. 97); or
 - (2) Determined unallowable, then the DOE Contracting Officer shall assess, through NREL, a penalty in an amount equal to two times the amount of the disallowed cost allocated to this subcontract.
- (e) The DOE Contracting Officer may waive the penalty provisions when—
 - (1) The Subcontractor withdraws the submission before the formal initiation of an audit of the submission and submits a revised submission;
 - (2) The amount of the unallowable costs allocated to covered subcontracts is \$10,000 or less; or
 - (3) The Subcontractor demonstrates to the DOE Contracting Officer's satisfaction that—
 - (ii) It has established appropriate policies, personnel training, and an internal control and review system that provides assurances that unallowable costs subject to penalties are precluded from the Subcontractor's submission for settlement of costs; and
 - (iii) The unallowable costs subject to the penalty were inadvertently incorporated into the submission.

PROPERTY (SPECIAL) (AUG 2016)

Derived from DEAR 970.5245-1 (AUG 2016) and Alternate I (AUG 2016) (FD)

(Applies to all subcontracts where Government Property is to be furnished to or acquired by the Subcontractor.)

(Alternate I applies if the Subcontractor is a non-profit Subcontractor.)

(a) *Furnishing of Government property.* NREL/The Government reserves the right to furnish any property or services required for the performance of the work under this subcontract.

(b) *Title to property.* Except as otherwise provided by the NREL Subcontract Administrator, title to all materials, equipment, supplies, and tangible personal property of every kind and description purchased by the Subcontractor, for the cost of which the Subcontractor is entitled to be reimbursed as a direct item of cost under this subcontract, shall pass directly from the vendor to the Government. NREL/The Government reserves the right to inspect, and to accept or reject, any item of such property. The Subcontractor shall make such disposition of rejected items as the NREL Subcontract Administrator shall direct. Title to other property, the cost of which is reimbursable to the Subcontractor under this subcontract, shall pass to and vest in the Government upon

(1) Issuance for use of such property in the performance of this subcontract, or

(2) Commencement of processing or use of such property in the performance of this subcontract, or

(3) Property furnished by NREL/the Government and property purchased or furnished by the Subcontractor, title to which vests in the Government, under this paragraph are hereinafter referred to as Government property. Title to Government property shall not be affected by the incorporation of the property into or the attachment of it to any property not owned by the Government, nor shall such Government property or any part thereof, be or become a fixture or lose its identity as personality by reason of affixation to any realty.

(c) *Identification.* To the extent directed by the NREL Subcontract Administrator, the Subcontractor shall identify Government property coming into the Subcontractor's possession or custody, by marking and segregating in such a way, satisfactory to the NREL Subcontract Administrator, as shall indicate its ownership by the Government.

(d) *Disposition.* The Subcontractor shall make such disposition of Government property which has come into the possession or custody of the Subcontractor under this subcontract as the NREL Subcontract Administrator may direct during the progress of the work or upon completion or termination of this subcontract. The Subcontractor may, upon such terms and conditions as the NREL Subcontract Administrator may approve, sell, or exchange such property, or acquire such property at a price agreed upon by the Government through the NREL Subcontract Administrator and the Subcontractor as the fair value thereof. The amount received by the Subcontractor as the result of any disposition, or the agreed fair value of any such property acquired by the Subcontractor, shall be applied in reduction of costs allowable under this subcontract or shall be otherwise credited to account to NREL/the Government, as the NREL Subcontract Administrator may direct. Upon completion of the work or the termination of this subcontract, the Subcontractor shall render an accounting, as prescribed by the NREL Subcontract Administrator, of all Government property which had come into the possession or custody of the Subcontractor under this subcontract.

(e) *Protection of government property—management of high-risk property and classified materials.*

(1) The Subcontractor shall take all reasonable precautions, and such other actions as may be directed by the NREL Subcontract Administrator, or in the absence of such direction, in accordance with sound business practice, to safeguard and protect Government property in the Subcontractor's possession or custody.

(2) In addition, the Subcontractor shall ensure that adequate safeguards are in place, and adhered to, for the handling, control and disposition of high-risk property and classified materials throughout the life cycle of the property and materials consistent with the policies, practices and procedures for property management contained in the Federal Property Management Regulations (41 CFR chapter 101), the Department of Energy (DOE) Property Management Regulations (41 CFR chapter 109), and other applicable Regulations.

(3) High-risk property is property, the loss, destruction, damage to, or the unintended or premature transfer of which could pose risks to the public, the environment, or the national security interests of the United States. High-risk property includes proliferation sensitive, nuclear related dual use, export controlled, chemically or radioactively contaminated, hazardous, and specially designed and prepared property, including property on the militarily critical technologies list.

(f) *Risk of loss of Government property.*

(1)

(i) The Subcontractor shall not be liable for the loss or destruction of, or damage to, Government property unless such loss, destruction, or damage was caused by any of the following—

(A) Willful misconduct or lack of good faith on the part of the Subcontractor's managerial personnel;

(B) Failure of the Subcontractor's managerial personnel to take all reasonable steps to comply with any appropriate written direction of the NREL Subcontract Administrator to safeguard such property under paragraph (e) of this clause; or

(C) Failure of Subcontractor managerial personnel to establish, administer, or properly maintain an approved property management system in accordance with paragraph (i)(1) of this clause.

(ii) If, after an initial review of the facts, the NREL Subcontract Administrator informs the Subcontractor that there is reason to believe that the loss, destruction of, or damage to the Government property results from conduct falling within one of the categories set forth above, the burden of proof shall be upon the Subcontractor to show that the Subcontractor should not be required to compensate NREL/the Government for the loss, destruction, or damage.

(2) In the event that the Subcontractor is determined liable for the loss, destruction or damage to Government property in accordance with (f)(1) of this clause, the Subcontractor's compensation to NREL/the Government shall be determined as follows:

(i) For damaged property, the compensation shall be the cost of repairing such damaged property, plus any costs incurred for temporary replacement of the damaged property. However, the value of repair costs shall not exceed the fair market value of the damaged property. If a fair market value of the property does not exist, the Government through the NREL Subcontract Administrator shall determine the value of such property, consistent with all relevant facts and circumstances.

(ii) For destroyed or lost property, the compensation shall be the fair market value of such property at the time of such loss or destruction, plus any costs incurred for temporary replacement and costs associated with the disposition of destroyed property. If a fair market value of the property does not exist, the Government through the NREL Subcontract Administrator shall determine the value of such property, consistent with all relevant facts and circumstances.

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- (3) The portion of the cost of insurance obtained by the Subcontractor that is allocable to coverage of risks of loss referred to in paragraph (f)(1) of this clause is not allowable.
- (g) *Steps to be taken in event of loss.* In the event of any damage, destruction, or loss to Government property in the possession or custody of the Subcontractor with a value above the threshold set out in the Subcontractor's approved property management system, the Subcontractor —
- (1) Shall immediately inform the NREL Subcontract Administrator of the occasion and extent thereof,
 - (2) Shall take all reasonable steps to protect the property remaining, and
 - (3) Shall repair or replace the damaged, destroyed, or lost property in accordance with the written direction of the NREL Subcontract Administrator. The Subcontractor shall take no action prejudicial to the right of NREL/the Government to recover therefore, and shall furnish to NREL/the Government, on request, all reasonable assistance in obtaining recovery.
- (h) *Government property for NREL/Government use only.* Government property shall be used only for the performance of this subcontract.
- (i) *Property Management—*
- (1) *Property Management System.*
The Subcontractor shall establish, administer, and properly maintain an approved property management system of accounting for and control, utilization, maintenance, repair, protection, preservation, and disposition of Government property in its possession under the subcontract. The Subcontractor's property management system shall be submitted to the NREL Subcontract Administrator for approval and shall be maintained and administered in accordance with sound business practice, applicable Federal Property Management Regulations and Department of Energy Property Management Regulations, and such directives or instructions which the NREL Subcontract Administrator may from time to time prescribe.
 - (i) In order for a property management system to be approved, it must provide for—
 - (A) Comprehensive coverage of property from the requirement identification, through its life cycle, to final disposition;
 - (B) [Reserved]
 - (C) Full integration with the Subcontractor's other administrative and financial systems; and
 - (D) A method for continuously improving property management practices through the identification of best practices established by "best in class" performers.
 - (iii) Approval of the Subcontractor's property management system shall be contingent upon the completion of the baseline inventory as provided in subparagraph (i)(2) of this clause.
 - (2) *Property Inventory.*
 - (i) Unless otherwise directed by the NREL Subcontract Administrator, the Subcontractor shall within six months after execution of the subcontract provide a baseline inventory covering all items of Government property.
 - (ii) If the Subcontractor is succeeding another Subcontractor in the performance of this subcontract, the Subcontractor shall conduct a joint reconciliation of the property inventory with the predecessor Subcontractor. The Subcontractor agrees to participate in a joint reconciliation of the property inventory at the completion of this subcontract. This information will be used to

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provide a baseline for the succeeding subcontract as well as information for closeout of the predecessor subcontract.

(j) The term "Subcontractor's managerial personnel" as used in this clause means the Subcontractor's directors, officers and any of its managers, superintendents, or other equivalent representatives who have supervision or direction of—

- (1) All or substantially all of the Subcontractor's business; or
- (2) All or substantially all of the Subcontractor's operations at any one facility or separate location to which this subcontract is being performed; or
- (3) A separate and complete major industrial operation in connection with the performance of this subcontract; or
- (4) A separate and complete major construction, alteration, or repair operation in connection with performance of this subcontract; or
- (5) A separate and discrete major task or operation in connection with the performance of this subcontract.

(k) The Subcontractor shall include this clause in all cost reimbursable lower-tier subcontracts.

ALTERNATE I (AUG 2016)

If the Subcontractor is a non-profit Subcontractor replace paragraph (j) of the basic clause with the following paragraph (j):

(j) The term "Subcontractor's managerial personnel" as used in this clause means the Subcontractor's directors, officers and any of its managers, superintendents, or other equivalent representatives who have supervision or direction of all or substantially all of—

- (1) The Subcontractor's business; or
- (2) The Subcontractor's operations at any one facility or separate location at which this subcontract is being performed; or
- (3) The Subcontractor's property system and/or a Major System Project as defined in DOE Order 413.3B, or successor version (Version in effect on effective date of subcontract).

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CYBERSECURITY: GENERAL REQUIREMENTS (DEC 2022)

(This clause applies to all Subcontracts requiring access to, use of, management of, or alteration of NREL or subcontracted computing systems, or electronic information that NREL owns or of which NREL is a custodian.)

(a) Definitions. As used in this clause—

- (1) “NREL Data” means all information processed or stored on computers or other electronic media by NREL or on NREL’s behalf, or provided to Subcontractor for such processing or storage, as well as information derived from such information in whole or in part. NREL Data includes, without limitation: (i) information on paper or other non-electronic media provided to subcontractor, and lower tier subcontractors, hereinafter “Subcontractor(s),” for computer processing or storage, or information formerly on electronic media; (ii) information provided to Subcontractor by NREL customers, users, employees, or other third parties; and (iii) Sensitive NREL Data.
- (2) “Sensitive NREL Data” means data that poses a risk to NREL, its employees, customers, partners, and the public if improperly disclosed or accessed, including without limitation personally identifiable information, financial information, protected health information, proprietary information, critical infrastructure information, information officially designated as sensitive (Controlled Unclassified Information, Official Use Only information), information that is proprietary by nature such as access codes or passwords, and other proprietary information as identified by NREL within the Subcontract.
- (3) “System” means any on premises, hosted, or cloud-based business information or a critical infrastructure system that is designed and installed by the Subcontractor or necessary for the proper operation of applications and infrastructure designed and installed by the Subcontractor. The system scope includes but is not specifically limited to applications, databases, supporting infrastructure (network devices; endpoint servers, workstations, mobile devices, or special appliances and their respective firmware, operating systems, and middleware), contracted or NREL partner services, and all related configuration and interconnections that are required for proper operation of the system.
- (4) “Information System Security Officer” means the security expert designated by NREL to assess and address cybersecurity risk to NREL and to oversee compliance with NREL’s security requirements.

(b) General Requirements

- (1) Compliance with the Law. Subcontractor will comply with all applicable Local, State and Federal Laws and Executive Orders.
- (2) Compliance with NREL Security Requirements. Subcontractors and lower tier subcontractors involved in the development or use of NREL systems and applications shall comply with NREL’s cybersecurity requirements (as attached to this subcontract). NREL reserves the right to remove or restrict access to subcontractors who fail to comply with the requirements.
- (3) Security Audits. NREL reserves the right to perform a security audit of the Subcontractor as it relates to the product or service to obtain assurance the Subcontractor is meeting the requirements described in this Clause.
- (4) Lower Tier Subcontractors. Any lower tier subcontracted services, including cloud-based services, used in the delivery of services under the Subcontract must be disclosed to and approved by NREL, must be based in the United States, and must comply with the requirements in the Cybersecurity Clauses attached to this subcontract. Subcontractor shall not permit any lower tier subcontractor to access NREL Data or systems (finished or in development) unless such lower tier subcontractor is subject to a written contract with Subcontractor agreeing to protect NREL Data and systems, with terms and conditions substantially equivalent to those of this provision. Subcontractor shall exercise reasonable efforts to ensure that each lower tier Subcontractor complies with all the terms of the Subcontract

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- (5) Authorization. Subcontractor shall not put any system or application into operational use, or test a system or application using operationally viable interconnections or data, until the system has been authorized by NREL's Information System Security Officer. Following initial Information Security Officer authorization, any subsequent major system changes or development efforts that will impact the security or privacy of NREL data, including but not specifically limited to changes to system scope, design, or security controls, will require re-authorization by NREL's Information System Security Officer.
- (6) Security Control Non-Disclosure. Subcontractor shall not publish or disclose in any manner beyond what is authorized by this Subcontract the details of any safeguards designed or developed by the Subcontractor.
- (7) Exceptions. Departures from the above requirements may be necessary to suit the type of system or application that is being designed or implemented under the Statement of Work. The Subcontractor shall present in writing any proposed exceptional cases to NREL's Information System Security Officer with recommended alternatives for their authorization prior to finalizing the proposed design and implementation plan for any technical components.

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CYBERSECURITY: GENERAL REQUIREMENTS FOR EDUCATIONAL INSTITUTIONS (DEC 2022)

(This clause applies to all Subcontracts with a university or similar educational institution requiring personnel affiliated with such university or similar educational institution, hereafter "Affiliate," to access, use, manage, or alter NREL or subcontracted computing systems, or electronic information that NREL owns or of which NREL is a custodian. As used in this clause, the term "Subcontractor" shall include any Affiliate.)

(a) Definitions. As used in this clause—

- (1) "NREL Data" means all information processed or stored on computers or other electronic media by NREL or on NREL's behalf, or provided to Subcontractor for such processing or storage, as well as information derived from such information in whole or in part. NREL Data includes, without limitation: (i) information on paper or other non-electronic media provided to subcontractor, and lower tier subcontractors, hereinafter "Subcontractor(s)," for computer processing or storage, or information formerly on electronic media; (ii) information provided to Subcontractor by NREL customers, users, employees, or other third parties; and (iii) Sensitive NREL Data.
- (2) "Sensitive NREL Data" means data that poses a risk to NREL, its employees, customers, partners, and the public if improperly disclosed or accessed, including without limitation personally identifiable information, financial information, protected health information, proprietary information, critical infrastructure information, information officially designated as sensitive (Controlled Unclassified Information, Official Use Only information), information that is proprietary by nature such as access codes or passwords, and other proprietary information as identified by NREL within the Subcontract.
- (3) "System" means any on premises, hosted, or cloud-based business information or a critical infrastructure system that is designed and installed by the Subcontractor or necessary for the proper operation of applications and infrastructure designed and installed by the Subcontractor. The system scope includes but is not specifically limited to applications, databases, supporting infrastructure (network devices; endpoint servers, workstations, mobile devices, or special appliances and their respective firmware, operating systems, and middleware), contracted or NREL partner services, and all related configuration and interconnections that are required for proper operation of the system.
- (4) "Information System Security Officer" means the security expert designated by NREL to assess and address cybersecurity risk to NREL and to oversee compliance with NREL's security requirements.

(b) General Requirements

- (1) Compliance with the Law. Subcontractor will comply with all applicable Local, State and Federal Laws and Executive Orders.
- (2) Compliance with NREL Security Requirements. Subcontractors and lower tier subcontractors involved in the development or use of NREL systems and applications shall comply with NREL's cybersecurity requirements (as attached to this subcontract). NREL reserves the right to remove or restrict access to subcontractors who fail to comply with the requirements.
- (3) Security Audits. NREL reserves the right to perform a security audit of the Subcontractor as it relates to the product or service to obtain assurance the Subcontractor is meeting the requirements described in this Clause.
- (4) Lower Tier Subcontractors. Any lower tier subcontracted services, including cloud-based services, used in the delivery of services under the Subcontract must be disclosed to and approved by NREL, must be based in the United States, and must comply with the requirements in the Cybersecurity Clauses attached to this subcontract. Subcontractor shall not permit any lower tier subcontractor to access NREL Data or systems (finished or in development) unless such lower tier subcontractor is subject to a written contract with Subcontractor agreeing to protect

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NREL Data and systems, with terms and conditions substantially equivalent to those of this provision. Subcontractor shall exercise reasonable efforts to ensure that each lower tier Subcontractor complies with all the terms of the Subcontract related to NREL Data and systems.

- (5) Authorization. Subcontractor shall not put any system or application into operational use, or test a system or application using operationally viable interconnections or data, until the system has been authorized by NREL's Information System Security Officer. Following initial Information Security Officer authorization, any subsequent major system changes or development efforts that will impact the security or privacy of NREL data, including but not specifically limited to changes to system scope, design, or security controls, will require re-authorization by NREL's Information System Security Officer.
- (6) Security Control Non-Disclosure. Subcontractor shall not publish or disclose in any manner beyond what is authorized by this Subcontract the details of any safeguards designed or developed by the Subcontractor.
- (7) Exceptions. Departures from the above requirements may be necessary to suit the type of system or application that is being designed or implemented under the Statement of Work. The Subcontractor shall present in writing any proposed exceptional cases to NREL's Information System Security Officer with recommended alternatives for their authorization prior to finalizing the proposed design and implementation plan for any technical components.

CYBERSECURITY: DATA PROTECTION (DEC 2022)

(This clause applies to all Subcontracts requiring access to, use of, management of, or alteration of NREL or subcontracted computing systems, or electronic information that NREL owns or of which NREL is a custodian.)

- (a) Definitions. As used in this clause—
- (1) “NREL Data” means all information processed or stored on computers or other electronic media by NREL or on NREL’s behalf, or provided to Subcontractor for such processing or storage, as well as information derived from such information. NREL Data includes, without limitation: (i) information on paper or other non-electronic media provided to subcontractor, and lower tier subcontractors, hereinafter “Subcontractor(s),” for computer processing or storage, or information formerly on electronic media; (ii) information provided to Subcontractor by NREL customers, users, employees, or other third parties; and (iii) Sensitive NREL Data as that term is defined below.
 - (2) “Sensitive NREL Data” means data that poses a risk to NREL, its employees, customers, partners, and the public if improperly disclosed or accessed, including without limitation personally identifiable information, financial information, protected health information, proprietary information, critical infrastructure information, information officially designated as sensitive (Controlled Unclassified Information, Official Use Only information), information that is proprietary by nature such as access codes or passwords, and other proprietary information as identified by NREL within the Subcontract.
 - (3) “System” means any on premises, hosted, or cloud-based business information or a critical infrastructure system that is designed and installed by the Subcontractor or necessary for the proper operation of applications and infrastructure designed and installed by the Subcontractor. The system scope includes but is not specifically limited to applications, databases, supporting infrastructure (network devices; endpoint servers, workstations, mobile devices, or special appliances and their respective firmware, operating systems, and middleware), contracted or NREL partner services, and all related configuration and interconnections that are required for proper operation of the system.
- (b) Data Protection Requirements
- (1) Subcontractor’s Access and Use of NREL Data. Subject to Section 4 below, unless it receives NREL’s prior written consent, Subcontractor shall not: (i) access, process, or otherwise use NREL Data other than as necessary to facilitate the work under this Subcontract; (ii) give any employee access to NREL Data except to the extent that such individual needs access to facilitate performance under this Subcontract; (iii) give any third party access to NREL Data, including without limitation Subcontractor’s other customers, except Subcontractor’s authorized lower tier subcontractors as required to fulfill the Statement of Work; and (iv) sell or transfer NREL Data to any third party. Notwithstanding the foregoing, Subcontractor may disclose NREL Data as required by applicable law or by proper legal or governmental authority. Subcontractor shall give NREL prompt notice of any such legal or governmental demand and shall cooperate with NREL in any effort to seek a protective order or otherwise to contest such required disclosure, at NREL’s expense.
 - (2) Ownership of NREL Data. NREL possesses and retains all rights, title, and interest in and to NREL Data, and Subcontractor’s use and possession thereof is solely on NREL’s behalf. Upon NREL’s request, NREL may access and copy any NREL Data in Subcontractor’s possession at any time, at no cost to NREL. Subcontractor shall facilitate such access after receiving NREL’s request.
 - (3) Retention and Deletion of Data. Subcontractor shall follow any commercially reasonable written instructions from NREL regarding retention and erasure of NREL Data; provided, however, Subcontractor shall not retain any NREL Data beyond thirty (30) days after termination of this Subcontract unless otherwise

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- Firm Fixed-Price, Fixed Unit-Price Level of Effort, Labor Hour and Time and Materials requested and approved in writing in advance by NREL. NREL Data shall be available to NREL to retrieve at any time and at no additional charge throughout the term of this Subcontract and for no more than thirty (30) days after expiration or termination of this Subcontract for any reason. Promptly after erasure of NREL Data or any copy thereof, Subcontractor shall certify such erasure to NREL in writing. In purging or erasing NREL Data as required by this Subcontract, Subcontractor shall leave no data recoverable on its computers or other media, to the maximum extent technically feasible.
- (4) **Applicable Law.** Subject to applicable intellectual property requirements incorporated into the Subcontract, the Subcontractor shall comply with all applicable laws and regulations governing the handling of NREL Data and shall not engage in any activity related to NREL Data that would place NREL in violation of any applicable law, regulation, government request, or judicial process.
 - (5) **Data Breach.** Subcontractor shall use industry-standard best practices to prevent unauthorized exposure or disclosure of NREL Data. In the event of a confirmed data breach or unauthorized disclosure, Subcontractor shall (i) notify NREL by telephone within 72 hours of discovery of the breach or unauthorized disclosure; and (ii) cooperate with NREL, Department of Energy, and law enforcement agencies, where applicable, to investigate and resolve the matter, including without limitation notifying injured third parties. Subcontractor shall give NREL prompt access to such records related to a data breach or unauthorized disclosure as NREL may reasonably request, provided that Subcontractor shall not be required to provide NREL with records belonging to, or compromising the security of, Subcontractor's other customers. In the event of a confirmed data breach or unauthorized disclosure caused solely by the act or omission of the Subcontractor or any of its agents, employees, or lower tier subcontractors, to the extent permitted by applicable law, the Subcontractor shall indemnify, defend and hold harmless NREL, DOE and its employees and agents against any costs incurred with respect to: (i) notification to all affected individuals using a reasonable method (e.g., email or standard regular mail; overnight courier is not reasonable); (ii) one year of credit monitoring for all affected individuals; and (iii) any other penalties and fines related to the breach or unauthorized disclosure as required by applicable law. The provisions of this Subcontract do not limit NREL's other rights and remedies, if any, resulting from a data breach or unauthorized disclosure.
 - (6) **Information Sharing.** Subcontractor shall provide a secure repository for the exchange of data related to this project, or at NREL's option, use a secure repository provided by NREL for this purpose. Any such repository shall (i) encrypt data in transmission and at rest, (ii) allow NREL to administer access to the repository to those NREL individuals with a business need to access, and (iii) be restricted (via access control mechanisms) to only those Subcontractors who are participating in the Work. Subcontractor-based sharing repositories must be based in the United States.
 - (7) **Privacy.** Upon NREL's request, the Subcontractor shall provide NREL with a copy of its Privacy Notice, Privacy Policy, and related documents pertaining to privacy governance.
 - (8) **Backup and Recovery.** Subcontractor shall ensure the recoverability of NREL Data lost due to operator error, system error or other unforeseen circumstances. In such event that NREL Data is lost as a result of Subcontractor-managed system failure or Subcontractor error, Subcontractor shall recover NREL's data at no charge to NREL.
 - (9) **Multi-Tenancy.** Should NREL Data be processed or stored in a multi-tenant environment, security controls shall be in place to ensure that a tenant with weak security settings cannot affect or interfere with the security of NREL Data as well as to ensure that data is not co-mingled within servers or stacks.
 - (10) **Restrictions on Sensitive NREL Data.** Subcontractor agrees to treat all Sensitive

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NREL Data disclosed to Subcontractor by NREL, whether such original disclosure is written or oral as confidential and proprietary, and not to disclose Sensitive NREL Data to any third party for a period of five (5) years from date this Subcontract expires or is terminated, whichever occurs first. However, oral disclosure of information (i.e., information expressed by spoken words) by NREL to Subcontractor shall be considered Sensitive NREL Data upon being identified as such at the time of disclosure and reduced to writing and a copy thereof being provided by NREL to Subcontractor within thirty (30) days of such disclosure. Upon expiration or termination of the subcontract, Subcontractor shall certify in writing that all copies and partial copies of such Sensitive NREL Data have either been returned or destroyed.

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CYBERSECURITY: DATA PROTECTION FOR EDUCATIONAL INSTITUTIONS (DEC 2022)

(This clause applies to all Subcontracts with a university or similar educational institution requiring personnel affiliated with such university or similar educational institution, hereafter "Affiliate," to access, use, manage, or alter NREL or NREL subcontracted computing systems, or electronic information that NREL owns or of which NREL is a custodian. As used in this clause, the term "Subcontractor" shall include any Affiliate.)

(a) Definitions. As used in this clause—

- (1) "NREL Data" mean all information processed or stored on computers or other electronic media by NREL or on NREL's behalf, or provided to Subcontractor for such processing or storage, as well as information derived from such information. NREL Data includes, without limitation: (i) information on paper or other non-electronic media provided to Subcontractor and lower tier subcontractors for computer processing or storage, or information formerly on electronic media; (ii) information provided to the Subcontractor by NREL customers, users, employees, or other third parties; and (iii) Sensitive NREL Data as that term is defined below.
- (2) "Sensitive NREL Data" means data that poses a risk to NREL, its employees, customers, partners, and the public if improperly disclosed or accessed, including without limitation personally identifiable information, financial information, protected health information, proprietary information, critical infrastructure information, information officially designated as sensitive (Controlled Unclassified Information, Official Use Only information), information that is proprietary by nature such as access codes or passwords, and other proprietary information as identified by NREL within the Agreement.
- (3) "System" means any on premises, hosted, or cloud-based business information or a critical infrastructure system that is designed and installed by the Subcontractor or necessary for the proper operation of applications and infrastructure designed and installed by the Subcontractor. The system scope includes but is not specifically limited to applications, databases, supporting infrastructure (network devices; endpoint servers, workstations, mobile devices, or special appliances and their respective firmware, operating systems, and middleware), contracted or NREL partner services, and all related configuration and interconnections that are required for proper operation of the system.

(b) Data Protection Requirements

- (1) Subcontractor's Access and Use of NREL Data. Subject to Section 4 below, unless it receives NREL's prior written consent, Subcontractor shall not: (i) access, process, or otherwise use NREL Data other than as necessary to facilitate the work under this Agreement; (ii) give any employee access to NREL Data except to the extent that such individual needs access to facilitate performance under this Agreement; (iii) give any third party access to NREL Data, including without limitation Subcontractor's other customers, except Subcontractor's authorized lower tier Subcontractors as required to fulfill the Statement of Work; and (iv) sell or transfer NREL Data to any third party. Notwithstanding the foregoing, Subcontractor may disclose NREL Data as required by applicable law or by proper legal or governmental authority. Subcontractor shall give NREL prompt notice of any such legal or governmental demand and shall cooperate with NREL in any effort to seek a protective order or otherwise to contest such required disclosure, at NREL's expense.
- (2) Ownership of NREL Data. NREL possesses and retains all rights, title, and interest in and to NREL Data, and Subcontractor's use and possession thereof is solely on NREL's behalf. Upon NREL's request, NREL may access and copy any NREL Data in Subcontractor's possession at any time, at no cost to NREL. Subcontractor shall facilitate such access after receiving NREL's request.
- (3) Retention and Deletion of Data. Subcontractor shall follow any commercially reasonable written instructions from NREL regarding retention and erasure of NREL Data; provided, however, Subcontractor shall not retain any NREL Data

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- Firm Fixed-Price, Fixed Unit-Price Level of Effort, Labor Hour and Time and Materials beyond thirty (30) days after termination of this Agreement unless otherwise requested and approved in writing in advance by NREL. NREL Data shall be available to NREL to retrieve at any time and at no additional charge throughout the term of this Agreement and for no more than thirty (30) days after expiration or termination of this Agreement for any reason. Promptly after erasure of NREL Data or any copy thereof, Subcontractor shall certify such erasure to NREL in writing. In purging or erasing NREL Data as required by this Agreement, Subcontractor shall leave no data recoverable on its computers or other media, to the maximum extent technically feasible.
- (4) **Applicable Law.** Subject to applicable intellectual property requirements incorporated into the Agreement, the Subcontractor shall comply with all applicable laws and regulations governing the handling of NREL Data and shall not engage in any activity related to NREL Data that would place NREL in violation of any applicable law, regulation, government request, or judicial process.
 - (5) **Data Breach.** Subcontractor shall use industry-standard best practices to prevent unauthorized exposure or disclosure of NREL Data. In the event of a confirmed data breach or unauthorized disclosure, Subcontractor shall (i) notify NREL by telephone within 72 hours of discovery of the breach or unauthorized disclosure; and (ii) cooperate with NREL, Department of Energy, and law enforcement agencies, where applicable, to investigate and resolve the matter, including without limitation notifying injured third parties. Subcontractor shall give NREL prompt access to such records related to a data breach or unauthorized disclosure as NREL may reasonably request, provided that Subcontractor shall not be required to provide NREL with records belonging to, or compromising the security of, Subcontractor's other customers. In the event of a confirmed data breach or unauthorized disclosure caused solely by the negligent act or omission or willful misconduct of the Subcontractor or any of its agents, employees, or lower tier subcontractors, to the extent permitted by applicable law and Subcontractor policies, the Subcontractor shall be responsible for any costs related to the data breach or unauthorized disclosure to be identified and agreed upon by Subcontractor, NREL and DOE, as necessary. Such costs may include: (i) notification to all affected individuals using a reasonable method (e.g., email or standard regular mail; overnight courier is not reasonable); (ii) one year of credit monitoring for all affected individuals; and (iii) any other penalties and fines related to the breach or unauthorized disclosure as required by applicable law. The provisions of this Agreement do not limit NREL's other rights and remedies, if any, resulting from a data breach or unauthorized disclosure.
 - (6) **Information Sharing.** Subcontractor shall provide a secure repository for the exchange of data related to this project, or at NREL's option, use a secure repository provided by NREL for this purpose. Any such repository shall (i) encrypt data in transmission and at rest, (ii) allow NREL to administer access to the repository to those NREL individuals with a business need to access, and (iii) be restricted (via access control mechanisms) to only those Affiliates who are participating in the Work. Subcontractor-based sharing repositories must be based in the United States.
 - (7) **Privacy.** Upon NREL's request, the Subcontractor shall provide NREL with a copy of its Privacy Notice, Privacy Policy, and related documents pertaining to privacy governance.
 - (8) **Backup and Recovery.** Subcontractor shall ensure the recoverability of NREL Data lost due to operator error, system error or other unforeseen circumstances. In such event that NREL Data is lost as a result of Subcontractor-managed system failure or Subcontractor error, Subcontractor shall recover NREL's data at no charge to NREL.
 - (9) **Multi-Tenancy.** Should NREL Data be processed or stored in a multi-tenant environment, security controls shall be in place to ensure that a tenant with weak

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security settings cannot affect or interfere with the security of NREL Data as well as to ensure that data is not co-mingled within servers or stacks.

- (10) Restrictions on Sensitive NREL Data. Subcontractor agrees to treat all Sensitive NREL Data disclosed to Subcontractor by NREL, whether such original disclosure is written or oral as confidential and proprietary, and not to disclose Sensitive NREL Data to any third party for a period of five (5) years from date this Agreement expires or is terminated, whichever occurs first. However, oral disclosure of information (i.e., information expressed by spoken words) by NREL to Subcontractor shall be considered Sensitive NREL Data upon being identified as such at the time of disclosure and reduced to writing and a copy thereof being provided by NREL to Subcontractor within thirty (30) days of such disclosure. Upon expiration or termination of the Agreement, Subcontractor shall certify in writing that all copies and partial copies of such Sensitive NREL Data have either been returned or destroyed.

CYBERSECURITY: COMMERCIAL PRODUCTS (DEC 2022)

(This clause applies to Subcontracts that involve the evaluation, acquisition, or installation of commercially available technology products, services, or Products, as defined below.)

- (a) Definitions. As used in this clause—
- (1) “DOE Sensitive Countries List” means a confidential list of countries maintained by the U.S. Department of Energy to which particular consideration is given for policy reasons during NREL internal review and approval processes.
 - (2) “Product” means any commercial off-the-shelf computer hardware or software component provided by a Subcontractor (e.g., reseller) paid for with Government funds and will become property of NREL via physical acquisition or be licensed for use by NREL and will be used on the NREL network or in conjunction with other NREL technologies.
 - (3) “Networked Product, or Product(s)” means any hardware or software component that must communicate or integrate with another device on the NREL network or across the Internet.
 - (4) “Safety or security sensitive” means that while in use at NREL, the Product will play a critical role in physical safety or security control, monitoring, or alerting functions.
 - (5) “NREL Data” means all information processed or stored on computers or other electronic media by NREL or on NREL’s behalf, or provided to Subcontractor for such processing or storage, as well as information derived from such information in whole or in part. NREL Data includes, without limitation: (i) information on paper or other non-electronic media provided to subcontractor, and lower tier subcontractors, hereinafter “Subcontractor(s),” for computer processing or storage, or information formerly on electronic media; (ii) information provided to Subcontractor by NREL customers, users, employees, or other third parties; and (iii) Sensitive NREL Data.
 - (6) “Sensitive NREL Data” means data that poses a risk to NREL, its employees, customers, partners, and the public if improperly disclosed or accessed, including without limitation personally identifiable information, financial information, protected health information, proprietary information, critical infrastructure information, information officially designated as sensitive (Controlled Unclassified Information, Official Use Only information), information that is proprietary by nature such as access codes or passwords, and other proprietary information as identified by NREL within the Subcontract.
 - (7) “Production systems or data” means any computer system or data processed therein that is in regular operational use, the disruption, corruption, loss, or exposure of which would cause negative impact to NREL’s mission or business operations.
- (b) Commercial Product Requirements
- (1) Minimum Viable Use. Unless otherwise specified in the Statement of Work, the Product(s) shall have a minimum viable use of three years from the date of purchase. Products that are end of life or scheduled for sunset within three years of the date of purchase are ineligible for use under the Subcontract. Should the Product purchase be part of an overarching service contract that includes the ongoing purchase, installation, and maintenance of commercially available equipment over a fixed term, purchased Products must be replaced by Subcontractor when they reach their end of life status.
 - (2) Responsible Sourcing. Products (i) with Department of Homeland Security directives against purchase, (ii) prohibited by the National Defense Authorization Act, or (iii) sold or manufactured by companies on the Department of Labor Office of Federal Contract Compliance Programs Debarred Companies list are ineligible for use under the Subcontract. Such ineligible products include, but are not limited to, Products containing components manufactured by debarred companies, and Products manufactured in countries on the DOE Sensitive Countries List.

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Subcontractor must submit a request for authorization to NREL Technical Monitor if Subcontractor intends to use a Product manufactured in a country other than the United States. NREL Technical Monitor shall deny any such requests if the subject country of manufacture appears on the DOE Sensitive Countries List. If the subject country of manufacture does not appear on the DOE Sensitive Countries List, NREL Technical Monitor may approve or deny any such request in NREL Technical Monitor's sole discretion.

- (3) Logging. The Product(s) must support or facilitate logging and forwarding of application security events for operational failure, security incident, and security monitoring purposes.
- (4) Access Control and Authority. The Product must be able to operate with user level authority and must not require that a user be logged in as an administrator to operate properly. Product(s) that are intended for use by more than one individual must contain features that allow administrators to control user and system access to functions, features, or system components on a need-to-know basis, and, to the extent practicable, role-based and with the option to integrate with existing Single Sign On / multi-factor authentication systems. Users and administrators of the Product must be able to change and otherwise manage their credentials (including, but not limited to, the capability to establish a password and perform password resets).
- (5) Compatibility with Security Functions and Products. The Product(s) must be capable of operating concurrently with standard industry security products, such as antimalware programs, log collection and monitoring agents, and web application firewalls. The Product must tolerate periodic vulnerability scanning, operating system patching and upgrades, and basic system hardening (for example, changing of default passwords and disabling unnecessary services). Products that require an out-of-support operating system or do not tolerate operating system patching for at least three years from the date of purchase will be considered out of compliance with the Minimum Viable Use requirement.
- (6) Data Security. Products that are intended for the storage, processing, or transfer of sensitive NREL Data must support strong encryption at rest using an unbroken encryption algorithm, and that is FIPS 140-2 compliant to the extent practicable. Products that communicate over the Internet for authentication, maintenance purposes, or remote management, must facilitate encryption in transit using an unbroken encryption algorithm. Products that store sensitive data must tolerate and/or enforce purging data for which NREL determines it longer has a business need to retain.
- (7) Proof of Concept. Proof of concept systems and environments must be physically and logically separate from NREL production systems and must not require the use of any NREL production data.
- (8) Special Purpose Equipment. Should the Product(s) require the installation of proprietary hardware, software, or a hardware/software combination for management, maintenance, or use, either (a) NREL must have administrative access to the management system and permission to manage its settings in order to apply and verify NREL's required security controls, or (b) the system must be separated from the NREL internal network using, at a minimum, logical access controls to restrict the system to the least necessary access to perform services under the Subcontract.

CYBERSECURITY: APPLICATION SECURITY (DEC 2022)

(This clause applies to all Subcontracts related to the development of custom applications, as defined below.)

- (a) Definitions. As used in this clause—
- (1) “Custom application or Product” means any code that is not generally commercially available, but was created for NREL, that is used to create, modify, integrate, or support computer functions for end users.
 - (2) “Production systems or data” means any computer system or data processed therein that is in regular operational use, the disruption, corruption, loss, or exposure of which would cause negative impact to NREL’s mission or business operations.
 - (3) “NREL Data” means all information processed or stored on computers or other electronic media by NREL or on NREL’s behalf, or provided to Subcontractor for such processing or storage, as well as information derived from such information in whole or in part. NREL Data includes, without limitation: (i) information on paper or other non-electronic media provided to subcontractor, and lower tier subcontractors, hereinafter “Subcontractor(s),” for computer processing or storage, or information formerly on electronic media; (ii) information provided to Subcontractor by NREL customers, users, employees, or other third parties; and (iii) Sensitive NREL Data.
 - (4) “Sensitive NREL Data” means data that poses a risk to NREL, its employees, customers, partners, and the public if improperly disclosed or accessed, including without limitation personally identifiable information, financial information, protected health information, proprietary information, critical infrastructure information, information officially designated as sensitive (Controlled Unclassified Information, Official Use Only information), information that is proprietary by nature such as access codes or passwords, and other proprietary information as identified by NREL within the Subcontract.
 - (5) “Plan of Actions and Milestones” means a schedule of activities that will be or are being undertaken to resolve a security weakness or control deficiency.
 - (6) “Information System Security Officer” means the security expert designated by NREL to assess and address cybersecurity risk to NREL and to oversee compliance with NREL’s security requirements.
- (b) Application Security Requirements
- (1) Design Specifications. Application design documents, requirements, or specifications must include a description of all custom-developed, installed, configured, or integrated application features that are designed to address data security and privacy risks. The developed, installed, configured, or integrated security features must, at a minimum, meet NREL’s security and design requirements in the following areas:
 - (i) Logging. The Product must facilitate logging and forwarding of application security events for operational failure, security incidents, and security monitoring purposes.
 - (ii) Access Control and Authority. The Product must be configured to allow administrators to assign role-based user access permissions to functions, features, or components of the application. The Product must be able to operate with user level authority and must not require that a user be logged in as an administrator to operate properly. Access control functions facilitated across a network must be configured to validate all users’ identities before access can be established or changed (e.g., by sending an expiring token to the user through a separate channel). Users and administrators of the Product must be able to self-manage their credentials (e.g., by establishing a password and performing password resets).

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- (iii) Compatibility with Security Functions and Products. The Product must be capable of operating concurrent with customary industry security products, including but not limited to antimalware programs, log collection and monitoring agents, and web application firewalls. The Product must be able to run on a manufacturer-supported operating system and tolerate periodic vulnerability scanning, operating system patching and upgrades, and basic system hardening (for example, changing of default passwords and disabling unnecessary services).
 - (iv) Data Security. Products that are intended for the storage, processing, or transfer of sensitive data must facilitate encryption at rest using an unbroken encryption algorithm, and that is FIPS 140-2 compliant to the extent practicable. Products that communicate over the Internet, for example, for authentication, maintenance purposes, or remote management, must facilitate encryption in transit using an unbroken encryption algorithm. Products that store sensitive data must tolerate and/or enforce purging data that NREL determines no longer has a business need to be retained.
 - (v) Back Doors and Covert Features. Covert software features such as backdoors are incompatible with NREL's business practices and are prohibited.
- (2) Test and Development Environments. Test and development software environments and production software environments must be kept strictly separate through physically separate computer systems or separate directories or libraries with strictly enforced access controls.
 - (3) Open Source and Third-Party Components. All open source and external software packages and versions used within the application must be approved by NREL's designated Information System Security Officer. These include but are not limited to open-source application versions, linked libraries, database applications, and encryption packages. Subcontractors shall provide proof of license for all licensed software, software components, and third-party libraries used within the application. The use of public domain, shareware, or freeware software not specified in the Statement of Work is subject to NREL's review and written approval.
 - (4) Test Data. Subcontractors may never use production data to perform testing of applications that are designed to collect, process, store, or transmit sensitive data. Test data sets may be fabricated or may be produced from sanitized production data. Subcontractor must ensure that the sanitization process has completely removed and/or replaced all details that may be valuable, critical, sensitive, or private before sanitized production data is used for testing.
 - (5) Security Testing. At NREL's discretion, Subcontractor must conduct, or permit NREL to conduct, initial vulnerability analysis and penetration testing prior to the release of the application. Should the Subcontractor not have a relationship or resources to perform such testing, or should such testing be excluded from the Scope of Work, the Subcontractor must cooperate with NREL and NREL's agents (if applicable) to facilitate and perform security testing prior to launch of any custom application.
 - (6) Vulnerability Remediation. Subcontractor must support the remediation of known exploitable security vulnerabilities or vulnerabilities discovered in the application by the Subcontractor, NREL, or an external party during security testing, security incident reporting, or in the normal course of operations for the duration of the project. Critical or high-risk exploitable vulnerabilities (categorized by the Common Vulnerability Scoring System) for which a patch is available must be repaired and re-tested to confirm repair within thirty (30) days of when the vulnerability is first reported to the Subcontractor. The Subcontractor must provide a Plan of Actions and Milestones to repair medium or lower-rated vulnerabilities on a timetable

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- Firm Fixed-Price, Fixed Unit-Price Level of Effort, Labor Hour and Time and Materials established by NREL, but in no event greater than 180 days from the date the vulnerability was reported to the Subcontractor or identified by NREL. Repair plans may consist of a custom code adjustment (version), patch, or upgrade.
- (7) Source Code Management. Source code that facilitates transactions with Sensitive NREL Data or related sensitive business functions may not be publicly released or published and must be access controlled. Public-facing non-compiled source code (including when used in web application programming) must be obfuscated to hide the business logic behind the application. Source code must otherwise be stored in an access-controlled code management repository to prevent unauthorized changes.

CYBERSECURITY: SYSTEM DESIGN AND IMPLEMENTATION (DEC 2022)

(This clause applies to all Subcontracts related to the design, installation, or configuration of an NREL information system, as defined below.)

(a) Definitions. As used in this clause—

- (1) “System” or “information system” means any on premises, hosted, or cloud-based business information or critical infrastructure system that is designed and installed by the Subcontractor or necessary for the proper operation of applications and infrastructure designed and installed by the Subcontractor. The system scope includes but is not specifically limited to applications, databases, supporting infrastructure (network devices; endpoint servers, workstations, mobile devices, or special appliances and their respective firmware, operating systems, and middleware), contracted or NREL partner services, and all related configuration and interconnections that are required for proper operation of the system.
- (2) “Industrial Control System” (also referred to as “control system”) means a system of networks, computers, and appliances that function as a unit to provide essential services and commodities. This includes, but is not specifically limited to, technologies used on and within supervisory control and data acquisition (SCADA) systems, and other technology appliances that are used to program, send commands to, monitor, and acquire data from controllers, sensors, actuators, and related operational equipment.
- (3) “Information System Security Officer” means the security expert designated by NREL to assess and address cybersecurity risk to NREL and to oversee compliance with NREL’s security requirements.
- (4) “Production systems or data” means any computer system or data processed therein that is in regular operational use, the disruption, corruption, loss, or exposure of which would cause negative impact to NREL’s mission or business operations.

(b) System Design and Implementation Requirements

- (1) Security Design. Subcontractor shall incorporate NREL’s security recommendations into the system design. These recommendations shall be provided by NREL’s Information System Security Officer upon review of the proposed system design. Additional requirements for industrial control systems are specified under Industrial Control System Network Design and Architecture.
- (2) Industrial Control System Network Design and Architecture. Where required in the Statement of Work, the Subcontractor shall design and/or configure, as appropriate, physical architectures and/or logical security controls for control systems that (a) maintain boundary separation between the control system and the public Internet such that there is no direct connection to or from the control system and the public Internet, (b) maintain appropriate separation between the control system and the general internal network such that only those communications required for the system’s maintenance or operation are permitted and (c) segment the internals of the control system into security domains or enclaves by common level of trust, management responsibility, and security policy. Internal control system network security domains must include, at minimum, a safety zone and a control zone. The controls shall be designed and configured in accordance with the latest versions of NIST Special Publication 800-82: Guide to Industrial Control Systems (ICS) Security Section 5 and (or equivalent documents if superseded during the life of the Subcontract) for acceptable segmentation methods. Logical groupings of systems without access control (ex. open VLANs) are insufficient to satisfy this requirement.
- (3) Network Protocol. All system and network components will be IPV6 compliant to the extent possible while preserving system operation.
- (4) System Development. As required in the Statement of Work, Subcontractor shall maintain access control for the system throughout its development and installation in accordance with the principle of least privilege. Subcontractor shall not use

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- (5) Design Changes. Subcontractor shall communicate any necessary changes in the system design (as required in Requirement 1) to the NREL designated Information System Security Officer prior to implementation of the change. Design changes that follow Authorization of the system and affect the system composition, data flows, or security and privacy controls require approval of NREL's designated Information System Security Officer.

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CYBERSECURITY: CLOUD, HOSTED, OR OUTSOURCED SYSTEMS AND RELATED SERVICES (DEC 2022)

(This clause applies to all Subcontracts related to the design, installation, configuration, or maintenance of an information system or parts thereof, as defined below, on NREL's behalf under a services contract.)

- (a) Definitions. As used in this clause—
- (1) “System” or “information system” means any on premises, hosted, or cloud-based business information or a critical infrastructure system that is designed and installed by the Subcontractor or necessary for the proper operation of applications and infrastructure designed and installed by the Subcontractor. The system scope includes but is not specifically limited to applications, databases, supporting infrastructure (network devices; endpoint servers, workstations, mobile devices, or special appliances and their respective firmware, operating systems, and middleware), underlying services, and all related configuration and interconnections that are required for proper operation of the system. The information system may be housed within a facility or multiple facilities separate from NREL's physical network maintained in whole, or part for NREL's benefit. Examples of applicable services may include, but are not limited to, collocated data center services, information system hosting, or cloud environments (Infrastructure as a Service, Platform as a Service, or Software as a Service).
 - (2) “NREL Data” means all information processed or stored on computers or other electronic media by NREL or on NREL's behalf, or provided to Subcontractor for such processing or storage, as well as information derived from such information. NREL Data includes, without limitation: (i) information on paper or other non-electronic media provided to subcontractor, and lower tier subcontractors, hereinafter “Subcontractor(s),” for computer processing or storage, or information formerly on electronic media; (ii) information provided to Subcontractor by NREL customers, users, employees, or other third parties; and (iii) Sensitive NREL Data as that term is defined below.
 - (3) “Sensitive NREL Data” means data that poses a risk to NREL, its employees, customers, partners, and the public if improperly disclosed or accessed, including without limitation personally identifiable information, financial information, protected health information, proprietary information, critical infrastructure information, information officially designated as sensitive (Controlled Unclassified Information, Official Use Only information), information that is proprietary by nature such as access codes or passwords, and other proprietary information as identified by NREL within the Subcontract.
 - (4) “Plan of Actions and Milestones” means a schedule of activities that will be or are being undertaken to resolve a security weakness or control deficiency.
 - (5) “Information System Security Officer” means the security expert designated by NREL to assess and address cybersecurity risk to NREL and to oversee compliance with NREL's security requirements.
 - (6) “NREL System Administrator” means an NREL employee who oversees the maintenance and security of an information system and has elevated rights and privileges to perform those duties.
- (b) Cloud or Hosted System Security Requirements
- (1) Disaster Recovery and Business Continuity. Subcontractor shall maintain and implement a disaster recovery and business continuity plan to ensure continuity of the services provided to NREL pursuant to this Subcontract and the recovery of any functionality lost due to operator error, system error or other unplanned circumstances. Upon NREL's written request, Subcontractor will issue to NREL a summary statement on the design of the disaster recovery and business continuity management plan. The disaster recovery and business continuity shall be tested at least annually and must be included in any third-party assessment scope (see SOC 2 Type 2 Report).

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- (2) Data Processing and Storage Locations. Subcontractor shall not store or process Sensitive NREL Data outside of the United States. Hosting services with multiple geographic locations shall restrict NREL Data processing and storage to locations within the United States.
- (3) On Premises Systems. Should the Subcontractor require the installation of an on-premises system to support the scope of work, either (a) NREL must have administrative access to the system to verify and implement security controls, or (b) the system must be separated from the NREL internal network using, at a minimum, logical access controls to restrict the system to the least necessary access to perform services under the Subcontract. Any system placed on the NREL network must conform to NREL's security requirements, including but not limited to the following specifications: (a) a supported operating system or firmware version; (b) patched or updated to close security vulnerabilities; (c) support access controls that maintain user least-privilege; (d) able to undergo configuration hardening; and (e) capable of running antimalware software (endpoints only).
- (4) Multi-Tenancy. Should NREL Data be processed or stored in a multi-tenant environment, security controls shall be in place to ensure that a tenant with weak security settings cannot affect or interfere with the security of NREL Data as well as to ensure that data is not co-mingled within servers or stacks.
- (5) Data Security. Services and environments that are intended for the storage, processing, or transfer of Sensitive NREL Data must facilitate encryption at rest using an unbroken encryption algorithm that is FIPS 140-2 compliant to the extent practicable. Communication that occurs over the Internet must be encrypted in transit using an unbroken encryption algorithm. Products that store sensitive data must tolerate and/or enforce purging data that NREL determines it no longer has a business need to retain.
- (6) Access Control. Subcontractor systems must support Active Directory / LDAPS integration, SAML authentication and authorization, the ability to specify access levels or assign permissions by user (job) role, and two-factor authentication for system administrator roles or roles with access to view or manage Sensitive NREL Data.
- (7) Logging and Monitoring. Subcontractor systems must facilitate capture (for example, activity logging) and where feasible, forwarding of recorded events for operational failure, security incidents, and security monitoring purposes. Where security logging and monitoring are the Subcontractor's responsibility under the Statement of Work or a customer responsibility matrix (see Customer Responsibility Matrix), the Subcontractor shall follow the provisions under Security Incident Reporting.
- (8) Security Incident Reporting. Subcontractor shall (i) notify NREL by telephone within 72 hours of confirmation of a cybersecurity incident that affects NREL contracted resources or the data contained therein (for example, but not limited to, a service interruption, loss, disclosure, or confirmed evidence of a suspicious or malicious presence); and (ii) cooperate with NREL and their delegates, where applicable, to investigate and resolve the matter, including without limitation providing access to logged evidence and other artifacts necessary to substantiate the security investigation.
- (9) SOC 2 Type 2 Report. No greater than fourteen calendar days after issuance of the Subcontract, Subcontractor shall provide to NREL its most recent Service Organization Control (SOC) 2 Type 2 report pertaining to the scope of services provided to NREL. Thereafter for the term of this Subcontract, the Subcontractor shall provide updated SOC 2 Type 2 reports to NREL annually. If Subcontractor's SOC 2 Type 2 report is qualified, then Subcontractor will provide a written Plan of Actions and Milestones to notify NREL of what actions they are taking to correct any findings and the expected resolution date for those corrections. Should a SOC 2 Type 2 not be performed or available, an alternative third-party control audit

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- Firm Fixed-Price, Fixed Unit-Price Level of Effort, Labor Hour and Time and Materials report may be acceptable to NREL with prior notice, sufficiency of criteria review, and approval from NREL.
- (10) FedRAMP Compliance. Where the Services rendered by the Subcontractor are certified to the Moderate level under the FedRAMP program, and where they are continually maintained in compliance with the FedRAMP program, the Subcontractor is exempt from Requirement 8, SOC 2 Type 2 Report. Additional security assurance, in the form of a third-party report (ex. SOC 2 Type 2 report) to the extent practicable, must be provided for FedRAMP Low and FedRAMP In-Progress services.
 - (11) Corrective Actions. If defects in security or compliance are reported in an annual report, Subcontractor shall provide NREL with a Plan of Actions and Milestones that details the actions and timeline to resolve such defects. Subcontractor shall resolve such security and compliance defects in the scope of the Subcontractor's supported services at no additional charge to NREL.
 - (12) Notice of Change. Subcontractor shall notify NREL in writing of planned significant changes to the services or services platform no less than thirty (30) days prior to the planned change. Significant changes include, but are not limited to, the launch of a new feature, migration of services to a new data center, changes in system or data security and privacy controls, or major application or system version upgrades.
 - (13) Notice of Outage. In the event of a planned service outage, Subcontractor shall notify NREL by telephone or in writing at least five (5) business days in advance of such outage. In the event of an unplanned service outage, Subcontractor shall notify NREL as soon as possible, and in any event within four (4) business hours.
 - (14) Customer Responsibility Matrix. Subcontractor shall provide NREL with a written matrix of security and privacy functions that describes which security features the Subcontractor will configure and manage and which features NREL is responsible to configure and manage. Subcontractor shall provide an updated matrix as updates to the Statement of Work annually or as the provided services occur. For any security feature NREL is responsible to configure, Subcontractor shall provide the NREL Information System Security Officer and System Administrators with documentation of or ongoing access to clear and unambiguous written instructions for the configuration of such features, including without limitation a description of available access controls mechanisms and access roles.

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CYBERSECURITY: SUBCONTRACTOR NETWORK ACCESS AND SUBCONTRACTOR EMPLOYEE CRIMINAL BACKGROUND CHECKS AND DRUG TESTING (DEC 2022)*(This clause applies to all Subcontracts that require Subcontractor personnel to directly access NREL Internal Networks and related computing systems either at the NREL campus, or via remote link.)*

(a) Definitions. As used in this clause—

- (1) “DOE Sensitive Countries List” means a confidential list of countries maintained by the U.S. Department of Energy to which particular consideration is given for policy reasons during NREL internal review and approval process for visits, assignments, and access by Foreign Nationals. Countries may appear on the list of national security, nuclear nonproliferation, or terrorism support reasons.
 - (2) “Foreign National” means a person born outside the jurisdiction of the United States, is a citizen of a foreign government, and has not been naturalized under U.S. law.
 - (3) “NREL Internal Networks” means any computers or computer networks that are hosted, maintained, and operated by NREL that are logically positioned interior to the NREL-managed network boundary (interior to an NREL firewall and not part of a defined Demilitarized Zone or DMZ) and require NREL-provided credentials to access. An example is a computer or computer network that requires the use of NREL-provided credentials on a local system or through a Virtual Private Networking or VPN. This definition does not include, and therefore this clause does not apply to, receipt or access to information from NREL through a managed external gateway (for example, an external-facing file-sharing platform, NREL website, an online collaboration tool, externally-allocated computer resources, or similar) with no direct access to NREL Internal Networks.
 - (4) “NREL Facilities” means any NREL-maintained and operated location that is physically accessible, including but not limited to: offices, data centers, stations, communications closets or houses, maintenance facilities, sheds or outbuildings, utility conduits or utility access ports.
 - (5) “NREL Technical Monitor” means the individual accountable for the stewardship of the Subcontractor’s technical project performance. NREL Technical Monitor is not authorized to direct to the Subcontractor binding modifications and changes to the Subcontractor’s technical project performance, including scope of work, schedule, budget, performance period, or terms and conditions under this Subcontract.
 - (6) “Operationally Critical Devices” means computers or other appliances that are so important to the operation of NREL’s information systems that any disruption, tampering, corruption, or outage would cause severe impact to NREL’s ability to carry out its mission or business operations.
 - (7) “Systems Management Devices” means computers or other appliances that are used to manage, monitor, or make changes to other computers that support an information system.
 - (8) “NREL System Administrator” means an NREL employee who is in charge of the maintenance and security of an information system and has elevated rights and privileges to perform those duties.
- (b) Network Access Requirements
- (1) NREL Security Policies and Procedures. In the event the Subcontractor’s personnel or lower tier subcontractors require access to NREL facilities or Networks, or related systems, whether physically or remotely, to provide installation, integration, interconnection, support, or other services, Subcontractor personnel will abide by NREL’s Acceptable Use Agreement. Subcontractor personnel shall attend subcontractor cybersecurity training that covers the requirements of this policy prior to access being granted and annually thereafter (as long as access persists).
 - (2) Subcontractor Access Requests. Should Subcontractor access to NREL Facilities or NREL Networks be necessary to support the implementation or support of the services, Subcontractor shall provide to NREL’s designated Technical Monitor the

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- contact information for the individuals requiring access, the necessary level of access, the business justification for each access, and the duration for which access is required (if not equal to the termination date of the Subcontract). Subcontractor employees will not share passwords or accounts with one another or with lower tier subcontractors.
- (3) Access Limitations. Subcontractors will be provided with access only to facilities, systems, networks, and data necessary to perform the services. NREL shall determine the degree and methods of access necessary to support the scope of services per applicable internal security policies and procedures.
 - (4) Work Locations. Subcontractor personnel shall not access or interact with NREL internal networks while physically located in, or using systems that are located in, a country on the DOE Sensitive Countries List. Subcontractor must submit a request for authorization to NREL Technical Monitor if any Subcontractor personnel intends to access or interact with NREL internal networks while physically located in, or using systems that are located in, a country other than the United States. NREL Technical Monitor shall deny any such requests if the subject country appears on the DOE Sensitive Countries List. If the subject country does not appear on the DOE Sensitive Countries List, NREL Technical Monitor may approve or deny any such request in NREL Technical Monitor's sole discretion.
 - (5) Access Termination. Subcontractor must notify NREL Technical Monitor immediately upon actual or anticipated departure or change in job role for Subcontractor personnel with access to the NREL network.
 - (6) Privileged Access to Operationally Critical or Systems Management Devices. Subcontractors requiring direct, privileged access to operationally critical systems to perform the Statement of Work must additionally comply with Homeland Security Presidential Directive 12 (HSPD-12), Personal Identity Verification (PIV), a process facilitated by NREL and administered by the Department of Energy. This entails providing additional personnel background forms and information. If Subcontractor may have a privileged systems administration role, Subcontractor must identify relevant personnel to the NREL Technical Monitor and start the HSPD-12/PIV process as soon as possible upon endorsement of the Agreement, and no later than one month in advance of anticipated start of system management and implementation work.
 - (7) Maintenance Services. Subcontractors requiring infrequent local (access at NREL Facilities) or remote access to NREL-hosted equipment for periodic maintenance shall be accompanied and monitored by an NREL System Administrator for the duration of the maintenance activity. Subcontractor access to the equipment will be provided upon expressed need and rescinded when not in use. Unless such is specifically required in the Statement of Work, and the system to be maintained has been designed and authorized by NREL for such purposes, Subcontractors may not install remote maintenance software or system back doors to perform continuous maintenance without NREL personnel in attendance.
- (c) Subcontractor Employee Criminal Background Checks and Drug Testing
- (1) Upon identification of an individual proposed to work under this Subcontract, the Subcontractor shall perform or obtain a background check on such individual before assigning the individual to the Subcontract. At a minimum, the background check shall include each of the following:
 - (i) Criminal background check for the past seven years in Colorado state criminal system
 - (ii) Criminal background check for the past seven years in other counties in which the individual has lived outside the state of Colorado
 - (iii) Criminal background check for the past seven years in federal criminal system
 - (iv) Drug Testing (Basic 5 Panel Screen)
 - (v) Department of Motor Vehicle History (only if driving is required for the

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performance of work under the Subcontract)

- (vi) Social Security Trace
 - (vii) Employment Verification
- (2) The Subcontractor shall conduct a thorough review of the background check results.
- (i) When adverse finding(s) are identified, the Subcontractor shall evaluate and assess the type, surrounding circumstances, and date of occurrence(s) of the adverse finding(s) relative to the scope of the NREL assignment.
 - (ii) Based on the background check results, the Subcontractor shall determine whether or not the individual presents a risk to NREL if granted access to NREL Networks, Operationally Critical Devices, and/or Systems Management Devices necessary to perform work under this subcontract.
 - (iii) Under no circumstances shall the Subcontractor disclose the results of a background check or the type, surrounding circumstances, and date of occurrence(s) of any adverse findings to the NREL Subcontract Administrator or any other NREL employee.
- (3) The Subcontractor shall ensure that the Subcontractor's personnel assigned to NREL:
- (i) Satisfy all NREL access security requirements. Subcontractor personnel who are Foreign Nationals will be subject to additional access requirements and processing time regardless of any such individual's work location. The access requirements set forth in NREL Terms and Conditions, Security and Access Requirements clause shall apply to requests for access to NREL Facilities and NREL Internal Networks.
 - (ii) Satisfactorily complete all required NREL Safety Orientation and Safety Training.
- (4) In the event that the Subcontractor fails to satisfy or complete the requirements set forth in this Clause, NREL reserves the right to cancel any assignment and/or request the immediate removal of the Subcontractor's personnel from assignment to the subcontract by giving verbal or written notice (via facsimile, email, or letter mailed or otherwise delivered) to the Subcontractor.
- (5) Upon review of an individual's background check results and determination that the individual does not present a risk to NREL if granted access to NREL Networks, Operationally Critical Devices and/or Systems Management Devices necessary to perform work under this subcontract, the Subcontractor shall provide, via email to the Subcontract Administrator, the individual's name and the following certification: "A background check for the individual(s) listed below has been completed, reviewed, and analyzed in accordance with the terms of the subcontract. I hereby certify that the individual(s) listed below is authorized to perform work under NREL Subcontract No. _____."

**CYBERSECURITY: EDUCATIONAL INSTITUTION NETWORK ACCESS AND AFFILIATE
CRIMINAL BACKGROUND CHECKS AND DRUG TESTING (DEC 2022)**

(This clause applies to all Subcontracts with a university or similar educational institution requiring personnel affiliated with such university or education institution, hereafter "Affiliate," direct access to Internal Networks and related computing systems at the NREL campus or via remote link. As used in this clause, the term "Subcontractor" shall include any Affiliate.)

- (a) Definitions. As used in this clause—
- (1) "DOE Sensitive Countries List" means a confidential list of countries maintained by the U.S. Department of Energy to which particular consideration is given for policy reasons during NREL internal review and approval process for visits, assignments, and access by Foreign Nationals. Countries may appear on the list of national security, nuclear nonproliferation, or terrorism support reasons.
 - (2) "Foreign National" means a person born outside the jurisdiction of the United States, is a citizen of a foreign government, and has not been naturalized under U.S. law.
 - (3) "NREL Internal Networks" means any computers or computer networks that are hosted, maintained, and operated by NREL that are logically positioned interior to the NREL-managed network boundary (interior to an NREL firewall and not part of a defined Demilitarized Zone or DMZ) and require NREL-provided credentials to access. An example is a computer or computer network that requires the use of NREL-provided credentials on a local system or through a Virtual Private Networking or VPN. This definition does not include, and therefore this clause does not apply to, receipt or access to information from NREL through a managed external gateway (for example, an external-facing file-sharing platform, NREL website, an online collaboration tool, externally-allocated computer resources, or similar) with no direct access to NREL Internal Networks
 - (4) "NREL Facilities" means any NREL maintained and operated location that is physically accessible, including but not limited to: offices, data centers, stations, communications closets or houses, maintenance facilities, sheds or outbuildings, utility conduits or utility access ports.
 - (5) "NREL Technical Monitor" means the individual accountable for the stewardship of the Subcontractor's technical project performance. The NREL Technical Monitor is not authorized to direct to the Subcontractor binding modifications and changes to the Subcontractor's technical project performance, including scope of work, schedule, budget, performance period, or terms and conditions under this Subcontract.
 - (6) "Operationally Critical Devices" means computers or other appliances that are so important to the operation of NREL's information systems that any disruption, tampering, corruption, or outage would cause severe impact to NREL's ability to carry out its mission or business operations.
 - (7) "Systems Management Devices" means computers or other appliances that are used to manage, monitor, or make changes to other computers that support an information system,
 - (8) "NREL System Administrator" means an NREL employee who is in charge of the maintenance and security of an information system and has elevated rights and privileges to perform those duties.
- (b) Network Access Requirements
- (1) NREL Security Policies and Procedures. In the event the Subcontractor requires access to NREL facilities or Networks, or related systems, whether physically or remotely, to provide installation, integration, interconnection, support, or other services, Subcontractors will abide by NREL's Acceptable Use Agreement. Affiliates shall attend subcontractor cybersecurity training that covers the requirements of this policy prior to access being granted and annually thereafter (as long as access persists).

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- (2) **Affiliate Criminal Background Checks and Drug Testing.** As required by the Department of Energy, NREL shall conduct criminal background checks and drug testing on Affiliates requiring direct access to the NREL Internal Network, as defined above, prior to granting any access to the NREL Internal Network. Based on the background check results, NREL shall determine whether the individual presents a risk to NREL if granted access to NREL Internal Networks. When adverse finding(s) are identified, NREL shall evaluate and assess the type, surrounding circumstances, and date of occurrence(s) of the adverse finding(s) relative to the scope of the NREL assignment. Affiliates that are determined by NREL to present a significant potential risk to the integrity of NREL's security and operations will be denied access, unless otherwise approved by the Department of Energy. As applicable, NREL shall disclose the results of a background check and any adverse findings to the Subcontractor, to NREL and DOE employees who have a need to know and are directly involved in the adjudication of the results of the background check.
- (3) **Subcontractor Access Requests.** Should Subcontractor access to NREL Facilities or NREL Networks be necessary to support the implementation or support of the services, Subcontractor shall provide to NREL's designated point of contact (for example, the work administrator) the contact information for the individuals requiring access, the necessary level of access, the business justification for each access, and the duration for which access is required (if not equal to the termination date of the Subcontract). Affiliates will not share passwords or accounts with one another or with lower tier subcontractors.
- (4) **Access Limitations.** Subcontractor will be provided with access only to facilities, systems, networks, and data necessary to perform the services. NREL shall determine the degree and methods of access necessary to support the scope of services per applicable internal security policies and procedures.
- (5) **Work Locations.** Subcontractor personnel shall not access or interact with NREL internal networks while physically located in, or using systems that are located in, a country on the DOE Sensitive Countries List. The Subcontractor institution must submit a request for authorization to NREL Technical Monitor if any Subcontractor personnel intends to access or interact with NREL internal networks while physically located in, or using systems that are located in, a country other than the United States. NREL Technical Monitor shall deny any such requests if the subject country appears on the DOE Sensitive Countries List. If the subject country does not appear on the DOE Sensitive Countries List, NREL Technical Monitor may approve or deny any such request in NREL Technical Monitor's sole discretion.
- (6) **Access Termination.** Subcontractor must notify NREL Technical Monitor immediately upon actual or anticipated departure or change in job role for Affiliates with access to the NREL network.
- (7) **Privileged Access to Operationally Critical or Systems Management Devices.** Subcontractors requiring direct, privileged access to operationally critical systems to perform the Scope of Work must additionally comply with Homeland Security Presidential Directive 12 (HSPD-12), Personal Identity Verification (PIV), a process facilitated by NREL and administered by the Department of Energy. This entails providing additional personnel background forms and information to the Department of Energy. If Subcontractors may have a privileged systems administration role under the Scope of Work, Subcontractor must identify relevant personnel to their primary NREL point of contact and start the HSPD-12/PIV process as soon as possible upon endorsement of the Scope of Work, and no later than one month in advance of anticipated start of system management and implementation work.
- (8) **Maintenance Services.** Affiliates requiring infrequent local (access at NREL Facilities) or remote access to NREL-hosted equipment for periodic maintenance shall be accompanied and monitored by an NREL System Administrator for the

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- (9) Non-Compliance. If Subcontractor fails to satisfy or complete the requirements set forth in this Clause, NREL reserves the right to cancel any assignment and/or request the immediate removal of any Affiliate from assignment to the Scope of Work by giving verbal or written notice (via facsimile, email, or letter mailed or otherwise delivered) to the Subcontractor.

CYBERSECURITY: CUSTODIANSHIP OF SENSITIVE NREL DATA (DEC 2022)

(This clause applies to all Subcontracts for the management of, access to, process of, or storage of NREL Data or Sensitive NREL Data, as defined below.)

(a) Definitions. As used in this clause—

- (1) “NREL Data” means all information processed or stored on computers or other electronic media by NREL or on NREL’s behalf, or provided to Subcontractor for such processing or storage, as well as information derived from such information. NREL Data includes, without limitation: (i) information on paper or other non-electronic media provided to subcontractor, and lower tier subcontractors, hereinafter “Subcontractor(s),” for computer processing or storage, or information formerly on electronic media; (ii) information provided to Subcontractor by NREL customers, users, employees, or other third parties; and (iii) Sensitive NREL Data as that term is defined below.
- (2) “Sensitive NREL Data” means data that poses a risk to NREL, its employees, customers, partners, and the public if improperly disclosed or accessed, including without limitation personally identifiable information, financial information, protected health information, proprietary information, critical infrastructure information, information officially designated as sensitive (Controlled Unclassified Information, Official Use Only information), information that is proprietary by nature such as access codes or passwords, and other proprietary information as identified by NREL within the Subcontract.
- (3) “System” means any on premises, hosted, or cloud-based business information or a critical infrastructure system that is designed and installed by the Subcontractor or necessary for the proper operation of applications and infrastructure designed and installed by the Subcontractor. The system scope includes but is not specifically limited to applications, databases, supporting infrastructure (network devices; endpoint servers, workstations, mobile devices, or special appliances and their respective firmware, operating systems, and middleware), contracted or NREL partner services, and all related configuration and interconnections that are required for proper operation of the system.

(b) Requirements for the Custodianship of Sensitive NREL Data

- (1) Scope. As applicable and necessary under the Statement of Work, NREL shall identify and / or approve (if generated or defined by the Subcontractor) what data may be created, collected, processed, transferred, or stored by the systems or processes supported by the Subcontractor such that it can be protected in accordance with the requirements below. No Sensitive NREL Data other than Sensitive NREL Data required to perform the Subcontractor’s services under the Statement of Work may be collected, processed, transferred, or stored.
- (2) Access Control. Two-factor authentication shall be used for anyone who has access to proprietary and sensitive data from the Internet. Access shall be limited to only those individuals with a verified business need. Where feasible and applicable, role-based access control systems shall be implemented to enable user account administration by job role or function.
- (3) Restrictions on Sensitive NREL Data. Subcontractor agrees to treat all Sensitive NREL Data disclosed to Subcontractor by NREL, whether such original disclosure is written or oral as confidential and proprietary, and not to disclose Sensitive NREL Data to any third party for a period of five (5) years from date this Subcontract expires or is terminated, whichever occurs first. However, oral disclosure of information (i.e., information expressed by spoken words) by NREL to Subcontractor shall be considered Sensitive NREL Data upon being identified as such at the time of disclosure and reduced to writing and a copy thereof being provided by NREL to Subcontractor within thirty (30) days of such disclosure. Upon expiration or termination of the subcontract, Subcontractor shall certify in writing that all copies and partial copies of such Sensitive NREL Data have either been returned or destroyed.

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- (4) Logging. Where the Subcontractor stores, processes, and/or manages access to Sensitive NREL Data, the Subcontractor shall ensure that record and/or field level access controls are implemented on all databases containing Sensitive NREL Data and that security audit logging is implemented for all sensitive data accesses. The Subcontractor shall make security audit log data available to NREL for NREL's monitoring, or shall review log files daily for inappropriate access or suspicious access attempts and report any breach of security to NREL according to the clause titled CYBERSECURITY: GENERAL REQUIREMENTS.
- (5) Data Retention. No Sensitive NREL Data other than Sensitive NREL Data required to perform the Services and meet NREL's record retention requirements may be retained (whichever is more stringent). NREL shall communicate applicable data retention requirements to the customer prior to the collection of production data. Expired data shall be deleted from all managed systems and applications upon expiration, or within a commercially reasonable timeframe following the expiration date not to exceed thirty (30) days.
- (6) Sanitization. All Sensitive NREL Data on rewritable media shall be removed from systems by overwriting the media three times with ones and zeros before disposal or transfer of assets outside of NREL's use or the Subcontractor's custodianship. Read-only media must be degaussed or destroyed such that it is unrecoverable.
- (7) Encryption. Sensitive NREL Data stored in the system must be encrypted using an unbroken encryption algorithm, that is FIPS 140-2 compliant to the extent practicable. Sensitive data transmitted across the Internet to or by the system must be encrypted in transit using an unbroken encryption algorithm. Subcontractor must use encryption key management strategies that are designed to prevent the corruption or exposure of encryption keys or abuse by individuals without a business need.
- (8) Vulnerability Scanning. All systems that store, collect, transmit, or process Sensitive NREL Data that are accessible from the Internet shall undergo vulnerability scanning quarterly. All high-risk defects must be corrected with scans re-performed to demonstrate defects no longer exist.
- (9) Data Replication. Subcontractor shall not duplicate Sensitive NREL Data to other systems, including but not limited to test systems and databases, portable storage media, hardcopies, or other locations where it is not necessary for the business or technical function of the Subcontractor's services under the Statement of Work.
- (10) Security Assurance Reporting. For hosted or cloud systems used to collect, store, or process Sensitive NREL Data, practices used to maintain security of those Subcontractor-managed information systems in accordance with the above must be included in security reporting required in the clause titled CYBERSECURITY: CLOUD, HOSTED, OR OUTSOURCED SYSTEMS AND RELATED SERVICES.

CYBERSECURITY: CARDHOLDER DATA ENVIRONMENTS (AUG 2021)

(This clause applies to all Subcontracts for the design, installation, configuration, or maintenance of an information system, or part thereof, that collects, processes, transmits, or stores Cardholder Data, as defined below.)

- (a) Definitions. As used in this clause—
- (1) “Cardholder Data” or “CHD” means the full magnetic stripe contents of a credit card plus any of the following: cardholder name, expiration date, service code.
 - (2) “Cardholder Data Environment” or “CDE” means an area of a computer system or network that possesses cardholder data or sensitive authentication data (related to cards) and those systems that directly attach to such environments or otherwise support cardholder processing, storage, or transmission.
 - (3) “Sensitive Authentication Data” means security-related information including, but not limited to, card validation codes/values (e.g., three-digit or four-digit value printed on the front or back of a payment card, such as CVV2 and CVC2 data), full magnetic-stripe data, PINs, and PIN blocks) used to authenticate cardholders and/or authorize payment card transactions.
 - (4) “System” or “information system” means any on premises, hosted, or cloud-based business information or a critical infrastructure system that is designed and installed by the Subcontractor or necessary for the proper operation of applications and infrastructure designed and installed by the Subcontractor. The system scope includes but is not specifically limited to applications, databases, supporting infrastructure (network devices; endpoint servers, workstations, mobile devices, or special appliances and their respective firmware, operating systems, and middleware), underlying services, and all related configuration and interconnections that are required for proper operation of the system.
 - (5) “Plan of Actions and Milestones” means a schedule of activities that will be or are being undertaken to resolve a security weakness or control deficiency.
- (b) Cardholder Data Environments Requirements
- (1) PCI-DSS Compliance. Cardholder Data Environments shall comply with all requirements of the current effective version of the Payment Card Industry Data Security Standard (PCI-DSS) for Level 2 merchants throughout the lifecycle of the environment.
 - (2) Scope. As applicable and necessary under the Statement of Work, NREL shall disclose to the Subcontractor where cardholder data is stored in the target architecture such that it can be protected per the requirements below.
 - (3) CDE Boundary Controls. To limit the scope of PCI controls, Subcontractor shall separate systems that collect, store, process, or transmit cardholder data by using network security control methods that are (a) deemed sufficient under the PCI-DSS standard and (b) validated for sufficiency to the frequency required in the PCI-DSS.
 - (4) Multi-Tenancy. It is preferred that CDEs be separated by function and by customer. Should any of the CDEs be combined (across NREL, or across NREL and multiple customers, ex. multi-tenancy), in accordance with the PCI-DSS, Subcontractor shall implement and maintain access controls to adequately separate the functions of each environment such that actions taken in or for one CDE do not affect the security of other CDEs on the same architecture.
 - (5) Supporting Systems Compliance. Subcontractor shall maintain all systems that do not contain cardholder data but provide supporting services to those systems that do (for example, to provide support, reporting functions, or similar) in a manner consistent with PCI-DSS requirements.
 - (6) Control Responsibilities. Subcontractor shall participate with NREL in developing and reviewing a compliance scope matrix to document responsibility for the design and execution of PCI-compliant controls.
 - (7) Payment Applications. Subcontractor shall only offer and deploy Payment Application Data Security Standard (PA-DSS) or PCI Software Security

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Framework (when superseded in 2022) compliant products to NREL.

Subcontractor shall ensure all Subcontractor-managed applications and their underlying support systems (for example, underlying operating systems) are patched and upgraded to maintain PA-DSS certification and / or framework compliance throughout the life of the Subcontract. Subcontractor shall provide a PA-DSS Implementation Guide (written document or website) to accompany their product that instructs NREL in applying the appropriate network configuration and system settings to achieve PCI-DSS compliance. NREL will not accept custom programming or one-off payment solutions that are not PA-DSS certified or framework compliant.

- (8) Attestation of Compliance. Subcontractor shall provide to NREL annually or earlier upon request, an Attestation of PCI-DSS Compliance signed by a qualified or internal security assessor (QSA or ISA) as validation of the controls under vendor's scope.
- (9) Compliance Auditing. Subcontractor shall permit NREL to test, inspect, or audit Subcontractor systems assigned to NREL or data residing on Subcontractor hosted systems to support NREL's compliance responsibilities.
- (10) Corrective Actions. Should defects in security or PCI compliance be reported in an Attestation of Compliance or disclosed in another security report, Subcontractor shall provide a Plan of Actions and Milestones that details the actions and timeline to resolve. Subcontractor shall resolve security and compliance defects in scope of the Subcontractor's supported services at no additional charge to NREL.