

2. AMENDMENT/MODIFICATION NO. 1130	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. 17EE000882	5. PROJECT NO. (If applicable)
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6. ISSUED BY Golden Field Office U.S. Department of Energy Golden Field Office 1617 Cole Blvd. Golden CO 80401-3393	CODE 03601	7. ADMINISTERED BY (If other than Item 6)
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) ALLIANCE FOR SUSTAINABLE ENERGY, LLC Attn: THOMAS SACK PO BOX 4011 MAILSTOP RSF-053 GOLDEN CO 80402	(x)	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	x	10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC36-08GO28308
		10B. DATED (SEE ITEM 13) 07/29/2008

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I.149 970.5243-1 Changes (Dec. 2000)
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not. is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
DUNS Number: 805948051
Administrative modification 1130 provides the following significant revisions to Contract Number DE-AC36-08GO28308:

- I. Increases the total award value.
- II. Section B, Paragraph B.3, Transition Cost, Estimated Costs and Maximum Available Fee, is deleted and replaced.
- III. Section C, Paragraph C.4, Statement of Work, is deleted and replaced.

Continued ...
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Jean M. Siekerka
15B. CONTRACTOR/OFFEROR <i>(Signature of person authorized to sign)</i>	15C. DATE SIGNED
	16B. UNITED STATES OF AMERICA Signature on File <i>(Signature of Contracting Officer)</i>
	16C. DATE SIGNED 01/18/2017

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-AC36-08GO28308/1130

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NAME OF OFFEROR OR CONTRACTOR
ALLIANCE FOR SUSTAINABLE ENERGY, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>IV. Section F, Paragraph F.1, Term of Contract, is deleted and replaced.</p> <p>V. Section I, Clause I.25, 52.217-9, Option to Extend Term of Contract, is deleted and replaced.</p> <p>VI. Section J, Attachment H, Performance Guarantee Agreement, is deleted and replaced.</p> <p>VII. All other terms and conditions of the contract remain the same.</p> <p>This Contract is to operate and manage the National Renewable Energy Laboratory.</p> <p>Payment: FOB: Destination Period of Performance: 07/29/2008 to 09/30/2023</p>				

This Modification incorporates the following significant changes to contract DE-AC36-08GO28308:

- I. The total award value is increased by \$2.0 billion from \$4.5 billion to \$6.5 billion.

- II. Paragraph B.3, Transition Cost, Estimated Costs and Maximum Available Fee, is deleted and replaced as follows:

B.3 Transition Cost, Estimated Costs and Maximum Available Fee

(a) Transition Activities

The Total Estimated Cost for the Transition Term of the contract is:

<u>Transition Term of the Contract</u>	<u>Total Estimated Cost</u>
July 29, 2008 – September 30, 2008	\$1,500,044

- (b) This is a performance-based cost plus award fee contract. There is no base fee for this contract.

- (c) Performance Fees and Other Incentives
 - (1) Transition activities shall be performed in accordance with Clause H.24, *Activities During Contract Transition*, on a cost-reimbursement basis. No fee shall be paid for these activities.

 - (2) In implementation of Clause I.114, *Total Available Fee: Base Fee Amount and Performance Fee Amount*, the Parties have agreed that the maximum available award fee that may be earned by the Contractor in accordance with the provisions of Section J, Attachment J, *Performance Evaluation and Measurement Plan*, for the performance of the work under this contract commencing October 1, 2008 are as follows:

Total Available Fee – Research and Development		
Period	Fee Base	Total Available Fee
October 1, 2008 through September 30, 2009	\$312,000,000	\$6,160,000
October 1, 2009 through September 30, 2010	\$312,000,000	\$6,160,000
October 1, 2010 through September 30, 2011	\$312,000,000	\$6,160,000
October 1, 2011 through September 30, 2012	\$312,000,000	\$6,160,000
October 1, 2012 through September 30, 2013	\$312,000,000	\$6,160,000

Total Available Fee – Construction Management Contracts Base Period		
Period	Fee Base	Total Available Fee
October 1, 2008 through September 30, 2009	\$41,587,000	\$1,012,055
October 1, 2009 through September 30, 2010	\$127,444,000	\$2,270,140
October 1, 2010 through September 30, 2011	\$105,315,000	\$1,643,153
October 1, 2011 through September 30, 2012	\$106,404,000	\$ 2,223,145
October 1, 2012 through September 30, 2013	\$24,432,000	\$ 649,080

Total Available Fee – Research and Development Option Period		
Period	Fee Base	Total Available Fee
October 1, 2013 through September 30, 2014	\$365,680,400	\$7,000,000
October 1, 2014 through May 31, 2015	\$243,786,933	\$4,666,667
June 1, 2015 through September 30, 2015	\$121,893,467	\$2,333,333
October 1, 2015 through September 30, 2016	\$365,680,400	\$7,000,000
October 1, 2016 through September 30, 2017	\$365,680,400	\$7,000,000
October 1, 2017 through September 30, 2018	\$366,701,600	\$6,800,000

Total Available Fee – Research and Development Extension Period		
Period	Fee Base	Total Available Fee
October 1, 2018 through September 30, 2019	\$366,701,600	\$6,800,000
October 1, 2019 through September 30, 2020	\$366,701,600	\$6,800,000
October 1, 2020 through September 30, 2021	\$366,701,600	\$6,800,000
October 1, 2021 through September 30, 2022	\$366,701,600	\$6,800,000
October 1, 2022 through September 30, 2023	\$366,701,600	\$6,800,000

- (3) Available fee will not be adjusted at the end of a performance period to reconcile actual costs to initially estimated costs. Fee is subject to adjustment under the provisions of Clause I.149, *Changes*, other contract provisions, or DEAR 970-1504-1-3 (c) (5).
- (4) If any line item construction project(s) is authorized for the National Renewable Energy Laboratory, a construction management fee will be added to paragraph (c)(2) above for each such project when they are authorized. The maximum possible adjustment to fee will be developed using the construction management fee schedule set forth in DEAR 915.404-4-71-5(f). The maximum possible fee will be calculated by adding the total estimated cost of the construction project, spread over those fiscal years for which costs is expected to be incurred, for the initial construction management fee base. For each subsequent construction project, the maximum possible fee will be calculated by adding the total estimated cost of the construction project, spread over those fiscal years for which costs are expected to be incurred

to the fee base previously established for construction management contract(s) for the years affected. Actual construction management fee available will be established through negotiation of the parties.

III. Paragraph C.4, Statement of Work, is deleted and replaced as follows:

C.4 Statement of Work

- (a) *Mission* -- The fundamental mission of DOE's national laboratories is to ensure the fullest use of the national investment to achieve the nation's strategic goals. It is NREL's mission to conduct, manage, and integrate long-term, high-risk research and development; technology, policy, and market analyses; and commercialization activities that enable widespread adoption of renewable energy and energy efficiency technologies. It is the Contractor's responsibility to develop, direct, coordinate, and sustain NREL's scientific, technical, management, analytic, financial, commercialization, and support resources to enable the development and deployment of the disruptive technologies, policies, and market innovations necessary to achieve NREL's mission. To successfully perform its mission the Contractor must ensure NREL's:
- Expertise in global energy technology, policy, and market matters;
 - Effectiveness in coordinating, applying, and leveraging federal resources with other public- and private-sector resources to create a collaborative and innovative environment to accelerate achievement of our national goals;
 - Ability to balance short-term commercialization opportunity and long-term high-risk, high-value research and development to optimize its national contribution over time;
 - Leadership in high-risk, complex, and high-value exploratory, translational, and applied research and development across the spectrum of renewable energy and energy efficiency and related disciplines;
 - Contribution of timely and definitive analyses on technology, policy, and market issues that govern commercialization and widespread adoption of renewable energy and energy efficiency technologies at the national, state, regional, and local levels;
 - Leadership in technical, management, and entrepreneurial disciplines;
 - Availability to national technology, policy, and market stakeholders;
 - Ability to rapidly identify, mature, and transfer knowledge and innovations to support business and economic development and accelerated commercialization of clean energy technologies;

- Effective, efficient, and safe operations and community acceptance; and,
 - For the contract extension period from the date of extension award through September 30, 2023 the Contractor is required to 1) increase deep foundational science capabilities to underpin science and technology approaches and yield greater innovation in clean energy development programs; 2) recruit and retain world-class renowned scientists and engineers in all NREL core and emerging capabilities as designated by DOE; 3) develop and maintain more active partnerships with universities that have a strong science and technology track record; and 4) maximize the impact of the Energy Systems Integration Facility and place greater emphasis on projects and partnerships that solve more integrated systems challenges associated with DOE's Grid Modernization Initiative. The Contractor shall address its plans and metrics for the above requirements in its Annual Laboratory Plan submittal each year starting in FY18 for approval by DOE. Specific performance objectives, success indicators and notable outcomes will be incorporated into the FY18 Performance Evaluation Measurement Plan (PEMP), as described in Section C.5, Performance Goals and Attributes of Performance, and annually thereafter.
- (b) *Operations* -- The Contractor is accountable for the planning, execution, completion, assessment, and delivery of all work products. The Contractor shall furnish the corporate leadership, all scientific, management, analytic, technical, and support personnel with the requisite expertise and experience to conduct all NREL RDD&D activities and operations with distinction. The contractor shall furnish all facilities, equipment, materials, supplies, and services (except those provided by the Government) necessary to perform all tasks necessary to manage and operate NREL commensurate with the public trust placed in a national institution and to successfully achieve all Performance Goals and DOE expectations. The Contractor shall:
- (1) Perform all work assigned or approved by the Contracting Officer. Work authorized by the Contracting Officer may be supplemented by technical direction pursuant to Clause I.103, Technical Direction;
 - (2) Ensure that all activities are conducted to the high standard expected of an FFRDC, that NREL's integrity as a public institution is protected and maintained;
 - (3) Manage all activities to avoid potential or actual organizational conflicts of interests, and immediately notify the Contracting Officer of any potential or actual conflict of interest including proposed mitigations;
 - (4) Regularly and openly assess and measure its mission and operational performance, share assessment results with stakeholders (including staff and DOE) and demonstrably use this information to improve NREL performance;
 - (5) Provide DOE regular disclosure and assurance of the performance of its operational systems;

- (6) Establish an independent audit capability to evaluate NREL mission and operational activities, capabilities, performance, and management and control systems to assure NREL's institutional integrity, to coordinate evaluations with DOE to avoid duplication, and to closely coordinate evaluations and their results, including mitigations, with DOE;
- (7) Ensure that the NREL Director is a leader in science, engineering, and business, possesses the national and international stature to effectively achieve NREL's mission, and is experienced in managing a multidisciplinary research, development, demonstration, and deployment organization;
- (8) Ensure that the NREL executive management team are leaders in their respective areas of responsibility and possess the relevant skills necessary to achieve NREL's mission;
- (9) Perform all work in a manner that protects human health and welfare, including employees, on-site temporary personnel (including subcontractors), visitors, and the general public, and the environment in accordance with the NREL Integrated Safety Management System, applicable environmental, safety, and health laws and standards, and industry best practices;
- (10) Provide DOE definitive and objective counsel on program planning, budget development, and program execution matters;
- (11) Stop work immediately when directed by an authorized Contracting Officer's Representative pursuant to Clause H.6, *Environment, Safety, and Health Stop Work Order*;
- (12) Manage and operate all NREL installations, including South Table Mountain main campus, the Denver West leased space and the National Wind Technology Center, and all other supporting installations effectively and efficiently, to ensure the long-term availability and protection of these installations and the federal investment, and in compliance with applicable laws, regulations, and directives;
- (13) Maintain a robust mechanism for establishing, disseminating, implementing, controlling, maintaining, and documenting standards or procedures used to control performance risk;
- (14) Recommend alternative standards to replace DOE Directives where the external standard is superior from a cost, implementation, or technical perspective based on assessed risks of the work at hand;

- (15) Ensure that all personnel are sufficiently trained and proficient in their areas of responsibility;
 - (16) Rely on persons qualified by knowledge, experience, or training to assess and categorize risk or to establish risk-based performance standards;
 - (17) Protect personal, proprietary, or business sensitive information commensurate with the risk of information loss;
 - (18) Collaborate with DOE and EERE's PMC to identify opportunities to advance EERE's mission and to work with the PMC to pursue these opportunities;
 - (19) Implement all requirements of Executive Order 13423 as represented in DOE Acquisition Letter 2007-12 to reduce the energy intensity and environmental footprint of NREL's operations (see clause H.14); and
 - (20) Provide all other facilities, personnel, support, and services necessary to achieve success across all NREL mission and operations performance goals or as required by the Contracting Officer.
- (c) The Contractor shall perform all tasks necessary to complete contract transition (See H.24, *Activities During Contract Transition*).

IV. Section F, Paragraph F.1, Term of Contract, is deleted and replaced as follows.

F.1 Term of Contract

- (a) This contract shall be effective as specified in Block No. 28, *Award Date*, of SF 33, and shall continue up to and including September 30, 2023, unless sooner terminated according to its terms.
- (b) The period for the transition from the incumbent Contractor to the Contractor shall begin on the date of award and extend through September 30, 2008 unless otherwise determined by the Contracting Officer. The Contractor is expected to have all transition activities complete by this date at which time the Contracting Officer shall notify the Contractor that they are to assume all responsibility for the complete Statement of Work.

V. Section I, Clause I.25, 52.217-9, Option to Extend the Term of the Contract (Mar 2000), is deleted and replaced as follows:

I.25 52.217-9 -- Option to Extend the Term of the Contract (Mar 2000)

- (a) The Government may extend the term of this contract by written notice to the Contractor within 120 days; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 12 months before the contract expires. The preliminary notice does not commit the Government to an extension.
- (b) If the Government exercises this option, the extended contract shall be considered to include this option clause.
- (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 180 months.

VI. Section J, Attachment H, Performance Guarantee Agreement, is deleted and replaced as follows:

The Performance Guarantees executed by Battelle Memorial Institute (Battelle) and Midwest Research Institute and referred to in Section J, Attachment H, Performance Guarantee Agreement, are deleted and replaced by new Performance Guarantee Agreements by Battelle and MRIGlobal each executed on January 9, 2017 which are hereby incorporated by Reference as Attachment H, Performance Guarantee Agreements.

VII. All other terms and conditions of the contract remain the same.