

2. AMENDMENT/MODIFICATION NO. 1124	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY CODE Golden Field Office U.S. Department of Energy Golden Field Office 1617 Cole Blvd. Golden CO 80401-3393		7. ADMINISTERED BY (If other than Item 6) CODE	

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
CODE 805948051	FACILITY CODE	

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)

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 1124 provides the following significant revisions to Contract Number DE-AC36-08GO28308:

- I. Section H, Clause H.3, Employee Compensation: Pay and Benefits, is deleted and replaced to capture updates to Clause H.3.
- II. Section H, Clause H.9, Responsible Corporate Official, is deleted and replaced to acknowledge Thomas Sack as the Chair, Alliance Board of Directors.
- III. Section J, Attachment F, Operating and Administrative Requirements (List B) is 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) David J. Lighthall
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 11/21/2016

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-AC36-08GO28308/1124

PAGE OF
2 40

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>deleted and replaced to delete DOE O 350.2B, Use of Management and Operating or Other Facility Management Contractor Employees for Services to DOE in Washington, D.C. Area.</p> <p>IV. 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 09/30/2018</p>				

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

- I. Section H, Clause H.3, Employee Compensation: Pay and Benefits, is deleted and replaced as follows to update Clause H.3.

H.3 EMPLOYEE COMPENSATION: PAY AND BENEFITS

(a) Contractor Employee Compensation Plan

The Contractor shall submit, for Contracting Officer approval, by close of contract transition, a Contractor Employee Compensation Plan (to be submitted during contract transition only) demonstrating how the Contractor will comply with the requirements of this Contract. The Contractor Employee Compensation Plan shall describe the Contractor's policies regarding compensation, pensions and other benefits, and how these policies will support at reasonable cost the effective recruitment and retention of a highly skilled, motivated, and experienced workforce.

A description of the Contractor Employee Compensation Program should include the following components;

- a. Philosophy and strategy for all pay delivery programs.
- b. System for establishing a job worth hierarchy.
- c. Method for relating internal job worth hierarchy to external market.
- d. System that links individual and/or group performance to compensation decisions.
- e. Method for planning and monitoring the expenditure of funds.
- f. Method for ensuring compliance with applicable laws and regulations.
- g. System for communicating the programs to employees.
- h. System for internal controls and self-assessment.
- i. System to ensure that reimbursement of compensation, including stipends, for employees who are on joint appointments with a parent or other organization shall be on a pro-rated basis.

(b) Total Compensation System

The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system

consistent with FAR 31.205-6 and DEAR 970.3102-05-6; “Compensation for Personal Services”. DOE-approved standards (e.g., set forth in an advance understanding or appendix), if any, shall be applied to the Total Compensation System. The Contractor’s Total Compensation System shall be fully documented, consistently applied, and acceptable to the Contracting Officer. Costs incurred in implementing the Total Compensation System shall be consistent with the Contractor’s documented Contractor Employee Compensation Plan as approved by the Contracting Officer.

(c) Reports and Information

The Contractor shall provide the Contracting Officer with the following reports and information with respect to pay and benefits provided under this Contract:

- (1) An Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special adjustments, and structure movements for each pay structure showing actual against approved amounts; and planned distribution of funds for the following year.
- (2) A list of the top five most highly compensated executives as defined in FAR 31.205-6(p)(4)(ii) and their total cash compensation at the time of Contract award, and at the time of any subsequent change to their total cash compensation. This should be the same information provided to the System for Award Management (SAM) per FAR 52.204-10.
- (3) An Annual Compensation and Benefits Report no later than March 1st of each year.

(d) Pay and Benefit Programs

The Contractor shall establish pay and benefit programs for Incumbent Employees and Non-Incumbent Employees as defined in paragraphs (1) and (2) below; provided, however, that employees scheduled to work fewer than 20 hours per week receive only those benefits required by law. Employees are eligible for benefits, subject to the terms, conditions, and limitations of each benefit program.

- (1) Incumbent Employees are the employees who are regular employees of the incumbent Contractor.

(A) Pay. Subject to the Workforce Transition Clause, the Contractor shall provide equivalent base pay to Incumbent Employees as compared to pay

(B) provided by Midwest Research Institute (now MRI Global) for at least the first year of the term of the Contract.

(B) Pension and Other Benefits. The Contractor shall provide a total package of benefits to Incumbent Employees comparable to that provided by Midwest Research Institute (now MRI Global). Comparability of the total benefit package shall be determined by the Contracting Officer in his/her sole discretion.

Incumbent Employees shall remain in their existing pension plans (or comparable successor plans if continuation of the existing plans is not practicable) pursuant to pension plan eligibility requirements and applicable law.

(2) Non-Incumbent Employees are new hires, i.e., employees other than Incumbent Employees who are hired by the Contractor after date of award. All Non-Incumbent Employees shall receive a total pay and benefits package that provides for market-based retirement and medical benefit plans that are competitive with the industry from which the Contractor recruits its employees and in accordance with Contract requirements.

(3) Cash Compensation

(A) The Contractor shall submit the below information, as applicable, to the Contracting Officer for a determination of cost allowability for reimbursement under the Contract:

- (i) Any proposed major compensation program design changes prior to implementation.
- (ii) Variable pay programs/incentives. If not already authorized under Appendix A of the contract, a justification shall be provided with proposed costs and impacts to budget, if any.
- (iii) In the absence of Departmental policy to the contrary (e.g., Secretarial pay freeze) a Contractor that meets the criteria, as set forth below, is not required to submit a Compensation Increase Plan (CIP) request to the Contracting Officer for an advance determination of cost allowability for a Merit Increase fund or Promotion/Adjustment fund:

- The Merit Increase fund does not exceed the mean percent increase included in the annual Departmental guidance providing the WorldatWork Salary Budget Survey's salary increase projected for the CIP year. The Promotion fund does not exceed one percent in total.
 - The budget used for both Merit Increase funds and Promotion/Adjustment funds shall be based on the payroll for the end of the previous CIP year.
 - Salary structure adjustments do not exceed the mean WorldatWork structure adjustments projected for the CIP year and communicated through the annual Department CIP guidance.
 - Please note: No later than the first day of the CIP cycle, Contractors must provide notification to the Contracting Officer of planned increases and position to market data by mutually agreed-upon employment categories. No presumption of allowability will exist for employee job classes that exceed market position.
- (iv) If a Contractor does not meet the criteria included in (iii) above, a CIP must be submitted to the Contracting Officer for an advance determination of cost allowability. The CIP should include the following components and data:
- (1) Comparison of average pay to market average pay.
 - (2) Information regarding surveys used for comparison.
 - (3) Aging factors used for escalating survey data and supporting information.
 - (4) Projection of escalation in the market and supporting information.
 - (5) Information to support proposed structure adjustments, if any.
 - (6) Analysis to support special adjustments.
 - (7) Funding requests for each pay structure to include breakouts of merit, promotions, variable pay, special adjustments, and structure movement. (a) The proposed plan totals shall be expressed as a percentage of the payroll for the end of the previous CIP year. (b) All pay actions granted under the

compensation increase plan are fully charged when they occur regardless of time of year in which the action transpires and whether the employee terminates before year end. (c) Specific payroll groups (e.g., exempt, nonexempt) for which CIP amounts are intended shall be defined by mutual agreement between the Contractor and the Contracting Officer. (d) The Contracting Officer may adjust the CIP amount after approval based on major changes in factors that significantly affect the plan amount (for example, in the event of a major reduction in force or significant ramp-up).

- (8) A discussion of the impact of budget and business constraints on the CIP amount.
 - (9) Comparison of pay to relevant factors other than market average pay.
- (v) Specific employment categories (e.g., Exempt, Non-Exempt) for which CIP amounts are intended shall be defined by mutual agreement between the Contractor and the Contracting Officer. After receiving DOE CIP approval or if criteria in (d)(3)(A)(iii) was met, contractors may make minor shifts of up to 10% of approved CIP funds by employment category (e.g., Exempt, Non-Exempt) without obtaining DOE approval.
- (vi) Individual compensation actions for the top Contractor official (e.g., laboratory director/plant manager or equivalent) and Key Personnel not included in the CIP. For those Key Personnel included in the CIP, DOE will approve salaries upon the initial contract award and when Key Personnel are replaced during the life of the contract. DOE will have access to all individual salary reimbursements. This access is provided for transparency; DOE will not approve individual salary actions (except as previously stated).
- (B) The Contracting Officer's approval of individual compensation actions will be required only for the top Contractor official (e.g., laboratory director/plant manager or equivalent) and Key Personnel as stated in (d)(3)(A)(vi) above. The base salary reimbursement level for the top Contractor official establishes the maximum allowable base salary reimbursement under the contract. Unusual circumstances may require a

deviation for an individual on a case-by-case basis. Any such deviations must be approved by the Contracting Officer.

- (C) Severance Pay is not payable to an employee under this Contract if the employee:
 - (i) Voluntarily separates, resigns or retires from employment, except when severance is paid in accordance with Contractor's Work Force Restructuring Plan approved by DOE,
 - (ii) Is offered employment with a successor/replacement Contractor,
 - (iii) Is offered employment with a parent or affiliated company, or
 - (iv) Is discharged for cause.
- (D) Service Credit for purposes of determining severance pay does not include any period of prior service for which severance pay has been previously paid through a DOE cost-reimbursement contract, unless such severance has been repaid by the employee in whole or in part, as appropriate, consistent with the terms of the applicable severance pay plan.

(e) Pension and Other Benefit Programs

- (1) No presumption of allowability will exist when the Contractor implements a new benefit plan, or makes changes to existing benefit plans that increase costs or are contrary to Departmental policy or written instruction or until the Contracting Officer makes a determination of cost allowability for reimbursement for new or changed benefit plans. Changes shall be in accordance with and pursuant to the terms and conditions of the contract. Advance notification, rather than approval, is required for changes that do not increase costs and are not contrary to Departmental policy or written instruction.
- (2) Cost reimbursement for Employee pension and other benefit programs sponsored by the Contractor will be based on the Contracting Officer's approval of Contractor actions pursuant to an approved "Employee Benefits Value Study" and an "Employee Benefits Cost Survey Comparison" as described below.
- (3) Unless otherwise stated, or as directed by the Contracting Officer, the Contractor shall submit the studies required in paragraphs (A) and (B) below.

The studies shall be used by the Contractor in calculating the cost of benefits under existing benefit plans. An Employee Benefits Value (Ben-Val) Study Method using no less than 15 comparator organizations and an Employee Benefits Cost Survey Comparison method shall be used in this evaluation to establish an appropriate comparison method. In addition, the Contractor shall submit updated studies to the Contracting Officer for approval prior to the adoption of any change to a pension or other benefit plan which increases costs.

- (A) The Ben-Val, every two years for each benefit tier (e.g., group of employees receiving a benefit package based on date of hire), which is an actuarial study of the relative value (RV) of the benefits programs offered by the Contractor to Employees measured against the RV of benefit programs offered by the Contracting Officer approved comparator companies. To the extent that the value studies do not address post retirement benefits other than pensions, the Contractor shall provide a separate cost and plan design data comparison for the post retirement benefits other than pensions using external benchmarks derived from nationally recognized and Contracting Officer approved survey sources and,
 - (B) An Employee Benefits Cost Study Comparison, annually for each benefit tier that analyzes the Contractor's employee benefits cost for employees on a per capita basis per full time equivalent employee and as a percent of payroll and compares it with the cost reported by the U.S. Department of Labor's Bureau of Labor Statistics or other Contracting Officer approved broad based national survey.
- (4) When the net benefit value exceeds the comparator group by more than five percent, the Contractor shall submit a corrective action plan to the Contracting Officer for approval, unless waived in writing by the Contracting Officer.
 - (5) When the average total benefit per capita cost or total benefit cost as a percent of payroll exceeds the comparator group by more than five percent, the Contractor shall submit an analysis of the specific plan costs that are above the per capita cost range or total benefit cost as a percent of payroll and a corrective action plan to achieve conformance with a Contracting Officer directed per capita cost range or total benefit cost as a percent of payroll, unless waived in writing by the Contracting Officer.

- (6) Within two years of Contracting Officer approval of the Contractor's corrective action plan, the Contractor shall align employee benefit programs with the benefit value and per capita cost range or percent of payroll as approved by the Contracting Officer.
 - (7) The Contractor may not terminate any benefit plan during the term of the Contract without the prior approval of the Contracting Officer in writing.
 - (8) Cost reimbursement for post-retirement benefits other than pensions (PRBs) is contingent on DOE approved service eligibility requirements for PRB that shall be based on a minimum period of continuous employment service not less than 5 years under a DOE cost reimbursement contract(s) immediately prior to retirement. Unless required by Federal or State law, advance funding of PRBs is not allowable.
 - (9) Each Contractor sponsoring a defined benefit pension plan and/or postretirement benefit plan will participate in the plan management process which includes written responses to a questionnaire regarding plan management, providing forecasted estimates of future reimbursements in connection with the plan(s) and participating in a conference call to discuss the Contractor submission (see (g)(6) below for Pension Management Plan requirements).
 - (10) Each Contractor will respond to quarterly data calls issued through iBenefits, or its successor system.
- (f) Establishment and Maintenance of Pension Plans for which DOE Reimburses Costs
- (1) Employees working for the Contractor shall only accrue credit for service under this Contract after the date of Contract award.
 - (2) Except for Commingled Plans in existence as of the effective date of the Contract, any pension plan maintained by the Contractor for which DOE reimburses costs, shall be maintained as a separate pension plan distinct from any other pension plan that provides credit for service not performed under a DOE cost-reimbursement contract. When deemed appropriate by the Contracting Officer, Commingled Plans shall be converted to Separate Plans at the time of new contract award or the extension of a contract.

(g) Basic Requirements

The Contractor shall adhere to the requirements set forth below in the establishment and administration of pension plans that are reimbursed by DOE pursuant to cost reimbursement contracts for management and operation of DOE facilities and pursuant to other cost reimbursement facilities contracts. Pension Plans include Defined Benefit and Defined Contribution plans.

- (1) The Contractor shall become a sponsor of the existing pension and other benefit plans (or comparable successor plans), including other PRB plans, as applicable, with responsibility for management and administration of the plans. The Contractor shall be responsible for maintaining the qualified status of those plans consistent with the requirements of ERISA and the Internal Revenue Code (IRC). The Contractor shall carry over the length of service credit and leave balances accrued as of the date of the Contractor's assumption of Contract performance.
- (2) Each Contractor defined benefit and defined contribution pension plan shall be subjected to a limited-scope audit annually that satisfies the requirements of ERISA section 103, except that every third year the Contractor must conduct a full-scope audit of defined benefit plan(s) satisfying ERISA section 103. Alternatively, the Contractor may conduct a full-scope audit satisfying ERISA section 103 annually. In all cases, the Contractor must submit the audit results to the Contracting officer. In years in which a limited scope audit is conducted, the Contractor must provide the Contracting Officer with a copy of the qualified trustee or custodian's certification regarding the investment information that provides the basis for the plan sponsor to satisfy reporting requirements under ERISA section 104.

While there is no requirement to submit a full scope audit for defined contribution plans, contractors are responsible for maintaining adequate controls for ensuring that defined contribution plan assets are correctly recorded and allocated to plan participants.

- (3) For existing Commingled Plans, the Contractor shall maintain and provide annual separate accounting of DOE liabilities and assets as for a Separate Plan.
- (4) For existing Commingled Plans, the Contractor shall be liable for any shortfall in the plan assets caused by funding or events unrelated to DOE contracts.

- (5) The Contractor shall comply with the requirements of ERISA if applicable to the pension plan and any other applicable laws.
 - (6) The Pension Management Plan (PMP) shall include a discussion of the Contractor's plans for management and administration of all pension plans consistent with the terms of the Contract. The PMP shall be submitted in the iBenefits system, or its successor system no later than January 31st of each applicable year. A full description of the necessary reporting will be provided in the annual management plan data request. Within sixty (60) days after the date of the submission, appropriate Contractor representatives shall participate in a conference call to discuss the Contractor's PMP submission and any other current plan issues or concerns.
- (h) Reimbursement of Contractors for Contributions to Defined Benefit (DB) Pension Plans
- (1) Contractors that sponsor single employer or multiple employer defined benefit pension plans will be reimbursed for the annual required minimum contributions under the Employee Retirement Income Security Act (ERISA), as amended by the Pension Protection Act (PPA) of 2006 and any other subsequent amendments.

Reimbursement above the annual minimum required contribution will require prior approval of the Contracting Officer. Minimum required contribution amounts will take into consideration all pre-funding balances and funding standard carryover balances. Early in the fiscal year but no later than the end of November, the Contractor requesting above the minimum may submit/update a business case for funding above the minimum if preliminary approval is needed prior to the Pension Management Plan process. The business case shall include a projection of the annual minimum required contribution and the proposed contribution above the minimum. The submission of the business case will provide the opportunity for the Department to provide preliminary approval, within 30 days after contractor submission, pending receipt of final estimates, generally after January 1st of the calendar year. Final approval of funding will be communicated by the Head of Contracting Activity (HCA) when discount rates are finalized and it is known whether there are any budget issues with the proposed contribution amount.

- (2) Contractors that sponsor multi-employer DB pension plans will be reimbursed for pension contributions in the amounts necessary to ensure that the plans are

funded to meet the annual minimum requirement under ERISA, as amended by the PPA. However, reimbursement for pension contributions above the annual minimum contribution required under ERISA, as amended by the PPA, will require prior approval of the Contracting Officer and will be considered on a case by case basis. Reimbursement amounts will take into consideration all pre-funding balances and funding standard carryover balances. Early in the fiscal year but no later than the end of November, the Contractor requesting above the minimum may submit/update a business case for funding above the minimum if preliminary approval is needed prior to the Pension Management Plan process. The business case shall include a projection of the annual minimum required contribution and the proposed contribution above the minimum. The submission of the business case will provide the opportunity for the Department to provide preliminary approval, within 30 days after contractor submission, pending receipt of final estimates, generally after January 1st of the calendar year. Final approval of funding will be communicated by the HCA when discount rates are finalized and it is known whether there are any budget issues with the proposed contribution amount.

(i) Reporting Requirements for Designated Contracts

The following reports shall be submitted to DOE as soon as possible after the last day of the plan year by the Contractor responsible for each designated pension plan funded by DOE but no later than the dates specified below:

- (1) Actuarial Valuation Reports. The annual actuarial valuation report for each DOE-reimbursed pension plan and when a pension plan is commingled, the Contractor shall submit separate reports for DOE's portion and the plan total by the due date for filing IRS Form 5500.
- (2) Forms 5500. Copies of IRS Forms 5500 with Schedules for each DOE funded pension plan, no later than that submitted to the IRS.
- (3) Forms 5300. Copies of all forms in the 5300 series submitted to the IRS that document the establishment, amendment, termination, spinoff, or merger of a plan submitted to the IRS.

(j) Changes to Pension Plans

At least sixty (60) days prior to the adoption of changes to a pension plan, the Contractor shall submit the information required below, to the Contracting Officer. The Contracting Officer must approve plan changes that increase costs as part of a

determination as to whether the costs are deemed allowable pursuant to FAR 31.205-6, as supplemented by DEAR 970.3102-05-6.

- (1) For proposed changes to pension plans and pension plan funding, the Contractor shall provide the following to the Contracting Officer:
 - (A) a copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout,
 - (B) an analysis of the impact of any proposed changes on actuarial accrued liabilities and costs,
 - (C) except in circumstances where the Contracting Officer indicates that it is unnecessary, a legal explanation of the proposed changes from the counsel used by the plan for purposes of compliance with all legal requirements applicable to private sector defined benefit pension plans,
 - (D) the Summary Plan Description, and
 - (E) any such additional information as requested by the Contracting Officer.

- (2) Contractors shall submit new benefit plans and changes to plan design or funding methodology with justification to the Contracting Officer for approval, as applicable (see (e)(1) above). The justification must:
 - (A) demonstrate the effect of the plan changes on the contract net benefit value or per capita benefit costs,
 - (B) provide the dollar estimate of savings or costs, and
 - (C) provide the basis of determining the estimated savings or cost.

(k) Terminating Operations

When operations at a designated DOE facility are terminated and no further work is to occur under the prime contract, the following apply:

- (1) No further benefits for service shall accrue.
- (2) The Contractor shall provide a determination statement in its settlement proposal, defining and identifying all liabilities and assets attributable to the DOE contract.
- (3) The Contractor shall base its pension liabilities attributable to DOE contract work on the market value of annuities or lump sum payments or dispose of

such liabilities through a competitive purchase of annuities or lump sum payouts.

- (4) Assets shall be determined using the “accrual-basis market value” on the date of termination of operations.
- (5) DOE and the Contractor(s) shall establish an effective date for spinoff or plan termination. On the same day as the Contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

(I) Terminating Plans

- (1) DOE Contractors shall not terminate any pension plan (Commingled or site specific) without requesting Departmental approval at least 60 days prior to the scheduled date of plan termination.
- (2) To the extent possible, the Contractor shall satisfy plan liabilities to plan participants by the purchase of annuities through competitive bidding on the open annuity market or lump sum payouts. The Contractor shall apply the assumptions and procedures of the Pension Benefit Guaranty Corporation.
- (3) Funds to be paid or transferred to any party as a result of settlements relating to pension plan termination or reassignment shall accrue interest from the effective date of termination or reassignment until the date of payment or transfer.
- (4) If ERISA or IRC rules prevent a full transfer of excess DOE reimbursed assets from the terminated plan, the Contractor shall pay any deficiency directly to DOE according to a schedule of payments to be negotiated by the parties.
- (5) On or before the same day as the Contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

- (6) DOE liability to a Commingled pension plan shall not exceed that portion which corresponds to DOE contract service. The DOE shall have no other liability to the plan, to the plan sponsor, or to the plan participants.
- (7) After all liabilities of the plan are satisfied, the Contractor shall return to DOE an amount equaling the asset reversion from the plan termination and any earnings which accrue on that amount because of a delay in the payment to DOE. Such amount and such earnings shall be subject to DOE audit. To effect the purposes of this paragraph, DOE and the Contractor may stipulate to a schedule of payments.

(m) Special Programs

Contractors must advise DOE and receive prior approval for each early-out program, window benefit, disability program, plan-loan feature, employee contribution refund, asset reversion, or incidental benefit.

(n) Definitions

- (1) Commingled Plans. Cover employees from the Contractor's private operations and its DOE contract work.
- (2) Current Liability. The sum of all plan liabilities to employees and their beneficiaries. Current liability includes only benefits accrued to the date of valuation. This liability is commonly expressed as a present value.
- (3) Defined Benefit Pension Plan. Provides a specific benefit at retirement that is determined pursuant to the formula in the pension plan document.
- (4) Defined Contribution Pension Plan. Provides benefits to each participant based on the amount held in the participant's account. Funds in the account may be comprised of employer contributions, employee contributions, investment returns on behalf of that plan participant and/or other amounts credited to the participant's account.
- (5) Designated Contract. For purposes of this clause, a contract (other than a prime cost reimbursement contract for management and operation of a DOE facility) for which the Head of the Departmental Contracting Activity determines that advance pension understandings are necessary or where there is a continuing Departmental obligation to the pension plan.

- (6) Pension Fund. The portfolio of investments and cash provided by employer and employee contributions and investment returns. A pension fund exists to defray pension plan benefit outlays and (at the option of the plan sponsor) the administrative expenses of the plan.
- (7) Separate Accounting. Account records established and maintained within a commingled plan for assets and liabilities attributable to DOE contract service. NOTE: The assets so represented are not for the exclusive benefit of any one group of plan participants.
- (8) Separate Plan. Must satisfy IRC Sec. 414(l) definition of a single plan, designate assets for the exclusive benefit of employees under DOE contract, exist under a separate plan document (having its own Department of Labor plan number) that is distinct from corporate plan documents and identify the Contractor as the plan sponsor.
- (9) Spun-off Plan. A new plan which satisfies IRC Reg. 1.414(l)-1 requirements for a single plan and which is created by separating assets and liabilities from a larger original plan. The funding level of each individual participant's benefits shall be no less than before the event, when calculated on a "plan termination basis."

II. Section H, Clause H.9, Responsible Corporate Official, is deleted and replaced as follows:

H.9 Responsible Corporate Official

Notwithstanding the provisions of clause H.8, Separate Corporate Entity and Performance Guarantee, the Government may contact, as necessary, the single responsible corporate official identified below, who is at a level above the Contractor and who is accountable for the performance of the Contractor, regarding Contractor performance issues. Should the responsible corporate official change during the period of the Contract, the Contractor shall promptly notify the Government of the change in the individual contact.

Name: Dr. Thomas M. Sack
(Offeror Complete)

Position: Chair, Board of Directors

Company: Alliance for Sustainable Energy, LLC

Address: 15013 Denver West Parkway
PO Box 4011
Golden, CO 80402-0000

III. Section J, Attachment F, Operating and Administrative Requirements (List B), is deleted and replaced as follows.

Attachment F

Operating and Administrative Requirements (List B)

Prime Contract No. DE-AC36-08GO28308

The operating and administrative requirements, including the Contractor Requirements Documents of DOE directives listed below are applicable in whole or in part in accordance with clauses H-18, Application of DOE Contractor Requirements Documents, and 970.5204-2, Laws, Regulations, and DOE Directives (DEC 2000). The concurrence analysis documenting applicability for each requirement below is maintained in the DOE Master File as well as any assurances as required by Clause H-18, and are made a part of this Contract by reference and are managed through a formal change control process.

Operating and Administrative Requirements	Applicability
DOE O 130.1 CRD Budget Formulation Approved: 09/29/95	CRD applicable in whole
DOE O 142.3A CRD Unclassified Foreign Visits and Assignments Program Approved: 10/14/2010	CRD applicable in whole
DOE O 151.1C CRD Comprehensive Emergency Management System Approved: 11/02/05	CRD applicable in whole
DOE O 200.1A CRD Information Technology Management Approved: 12/23/2008	CRD applicable in whole
DOE O 205.1B CRD Department of Energy Cyber Security Program Approved: 05/16/11	CRD applicable in part
DOE O 206.1 CRD Department of Energy Privacy Program Approved: 01/16/09	CRD applicable in whole

DOE O 206.2 CRD Identity, Credential, and Access Management (ICAM) 02/19/13	CRD applicable in part
DOE O 210.2A CRD DOE Corporate Operating Experience Program Approved: 04/08/11	CRD applicable in whole
DOE O 221.1A CRD Reporting Fraud, Waste, and Abuse to the Office of Inspector General Approved: 04/19/08	CRD applicable in whole
DOE O 221.2 CRD Cooperation with the Office of Inspector General Approved: 03/22/01	CRD applicable in whole
DOE O 225.1B CRD Accident Investigations Approved: 03/04/11	CRD applicable in whole
DOE O 226.1B CRD Implementation of Department of Energy Oversight Policy Approved 04/25/11	CRD applicable in whole
DOE O 227.1 CRD Independent Oversight Program Approved: 08/30/11	CRD applicable in whole
DOE O 231.1B CRD Environment, Safety and Health Reporting Approved: 06/27/11	CRD applicable in whole
DOE O 232.2 CRD Occurrence Reporting and Processing of Operations Information Approved: 08/30/11	CRD applicable in whole
DOE O 241.1B CRD Scientific and Technical Information Management Approved: 12/13/10	CRD applicable in whole
DOE O 243.1B CRD Records Management Program Approved: 03/11/13	CRD applicable in part
DOE O 350.1 CRD Change 5 Contractor Human Resource Management Programs Approved: 09/30/96 Change 5: 09/30/14	CRD applicable in whole

DOE O 413.1A CRD Management Control Program Approved: 04/18/02	CRD applicable in whole
DOE O 413.2B CRD Laboratory Directed Research and Development Approved: 04/19/06	CRD applicable in whole
DOE O 413.3B CRD Program and Project Management for the Acquisition of Capital Assets Approved: 11/29/2010	CRD applicable in whole
DOE O 414.1D CRD Quality Assurance Approved: 04/25/11	CRD applicable in part
DOE O 430.1B CRD Change 2 Real Property Asset Management Approved: 09/24/03	CRD applicable in whole
DOE O 436.1 CRD Departmental Sustainability Approved: 05/02/11	CRD is applicable in whole
DOE O 442.1A CRD Department of Energy Employee Concerns Program Approved: 06/06/01	CRD applicable in whole
DOE O 442.2 CRD Differing Professional Opinions for Technical Issues Involving Environmental, Safety, and Health Technical Concerns Approved: 07/29/11	CRD applicable in whole
DOE O 443.1B CRD Change 1 Protection of Human Research Subjects Approved: 04/21/16	CRD applicable in part
DOE O 456.1 CRD The Safe Handling of Unbound Engineered Nanoparticles Approved: 05/31/11	CRD applicable in part
DOE O 458.1 CRD Change 2 Radiation Protection of the Public and the Environment Approved: 06/06/11	CRD applicable in part
DOE O 470.4B CRD Safeguards and Security Program Approved: 07/21/11	CRD applicable in part
DOE O 470.5 CRD Insider Threat Program Approved 06/02/14	CRD applicable in part
DOE O 471.3 CRD Identifying and Protecting Official Use Only Information Approved: 04/09/03	CRD applicable in whole

DOE M 471.3-1 CRD Manual for Identifying and Protecting Official Use Only Information Approved: 04/09/03	CRD applicable in whole
DOE O 472.2 CRD Personnel Security Approved: 07/21/11	CRD applicable in part
DOE O 473.3 CRD Protection Program Operations Approved: 06/29/11	CRD applicable in part
DOE O 475.1 CRD Counterintelligence Program Approved: 12/10/04	CRD applicable in whole
OE O 483.1A CRD DOE Cooperative Research and Development Agreements Approved: 11/06/13	CRD applicable in part
DOE O 484.1 CRD Reimbursable Work for the Department of Homeland Security Approved: 08/17/06	CRD applicable in whole
DOE O 522.1 CRD Pricing of Departmental Materials and Services Approved: 11/03/04	CRD applicable in whole
DOE O 534.1B CRD Accounting Approved: 01/06/03	CRD applicable in whole
DOE O 551.1D CRD Official Foreign Travel Approved: 04/02/12	CRD applicable in whole
DOE O 580.1A CRD Department of Energy Personal Property Management Program Approved: 03/30/12	CRD applicable in whole

**Summary of Modifications to Attachment F
Operating and Administrative Requirements
Mod 1124**

Deleted	DOE O 350.2B CRD Use of Management and Operating or Other Facility Management Contractor Employees for Services to DOE in Washington, D.C. Area Approved 05/31/11	CRD applicable in whole
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IV. All other terms and conditions of the contract remain the same.