

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                       |                     |                                                                                                                         |               |                                |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------|--|
| <b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                                                                                                                                       | 1. CONTRACT ID CODE |                                                                                                                         | PAGE OF PAGES |                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                       |                     |                                                                                                                         | 1      2      |                                |  |
| 2. AMENDMENT/MODIFICATION NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | 3. EFFECTIVE DATE                                                                                                                                                                                                     |                     | 4. REQUISITION/PURCHASE REQ. NO.                                                                                        |               | 5. PROJECT NO. (If applicable) |  |
| 1489                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | See Block 16C                                                                                                                                                                                                         |                     | 25EE001969                                                                                                              |               |                                |  |
| 6. ISSUED BY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | CODE                                                                                                                                                                                                                  |                     | 7. ADMINISTERED BY (If other than Item 6)                                                                               |               | CODE                           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | 892434                                                                                                                                                                                                                |                     |                                                                                                                         |               | 03601                          |  |
| Golden Field Office<br>U.S. Department of Energy<br>15013 Denver West Parkway<br>Golden CO 80401                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                       |                     | Golden Field Office<br>U.S. Department of Energy<br>Golden Field Office<br>15013 Denver West Parkway<br>Golden CO 80401 |               |                                |  |
| 8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                       |                     | (x)                                                                                                                     |               |                                |  |
| ALLIANCE FOR SUSTAINABLE ENERGY, LLC<br>Attn: Ian Colrain, Ph.D.<br>PO BOX 4011<br>Mailstop RSF-053<br>Golden CO 804024011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                       |                     | 9A. AMENDMENT OF SOLICITATION NO.                                                                                       |               |                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                       |                     | 9B. DATED (SEE ITEM 11)                                                                                                 |               |                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                       |                     | 10A. MODIFICATION OF CONTRACT/ORDER NO.<br>DE-AC36-08GO28308                                                            |               |                                |  |
| CODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                       |                     | FACILITY CODE                                                                                                           |               |                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                       |                     | 10B. DATED (SEE ITEM 13)<br>07/29/2008                                                                                  |               |                                |  |
| <b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                       |                     |                                                                                                                         |               |                                |  |
| <input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.<br>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 electronic communication 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 letter or electronic communication, provided each letter or electronic communication 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)<br>See Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                       |                     |                                                                                                                         |               |                                |  |
| <b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                       |                     |                                                                                                                         |               |                                |  |
| 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 data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). |                     |                                                                                                                         |               |                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:                                                                                                                                              |                     |                                                                                                                         |               |                                |  |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | D. OTHER (Specify type of modification and authority)<br>Clause I.149 970.5243-1, Changes (Dec. 2000)                                                                                                                 |                     |                                                                                                                         |               |                                |  |
| <b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                       |                     |                                                                                                                         |               |                                |  |
| 14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                       |                     |                                                                                                                         |               |                                |  |
| UEI: DVGLNXBURMP3<br>Administrative Modification 1489 provides the following significant revisions to Contract Number DE-AC36-08GO28308:<br>Section J - Attachment J - Performance Evaluation And Measurement Plan, is hereby deleted and replaced.<br>All other terms and conditions of the contract remain the same.<br>This contract is to manage and operate the National Renewable Energy Laboratory.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                       |                     |                                                                                                                         |               |                                |  |
| LIST OF CHANGES:<br>Reason for Modification: Other Administrative Action<br>Total Amount for this Modification: \$0.00<br>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)                                                              |               |                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                       |                     | Peter G. Luft                                                                                                           |               |                                |  |
| 15B. CONTRACTOR/OFFEROR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 15C. DATE SIGNED                                                                                                                                                                                                      |                     | 16B. UNITED STATES OF AMERICA                                                                                           |               | 16C. DATE SIGNED               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                       |                     | Electronic Signature on File                                                                                            |               | 09/29/2025                     |  |
| (Signature of person authorized to sign)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                       |                     | (Signature of Contracting Officer)                                                                                      |               |                                |  |

|                           |                                                                     |      |    |
|---------------------------|---------------------------------------------------------------------|------|----|
| <b>CONTINUATION SHEET</b> | REFERENCE NO. OF DOCUMENT BEING CONTINUED<br>DE-AC36-08GO28308/1489 | PAGE | OF |
|                           |                                                                     | 2    | 2  |

NAME OF OFFEROR OR CONTRACTOR  
ALLIANCE FOR SUSTAINABLE ENERGY, LLC

| ITEM NO.<br>(A) | SUPPLIES/SERVICES<br>(B)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | QUANTITY<br>(C) | UNIT<br>(D) | UNIT PRICE<br>(E) | AMOUNT<br>(F) |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------------------|---------------|
|                 | <p>New Total Amount for this Version: \$0.00</p> <p>New Total Amount for this Award:<br/>\$10,850,953,146.95</p> <p>CHANGES FOR LINE ITEM NUMBER: 7000</p> <p>NEW DELIVERY LOCATION RECORD:<br/>Quantity: 0<br/>Amount: \$0.00<br/>Days after award: Unassigned</p> <p>NEW ACCOUNTING CODE ADDED:<br/>Account code:<br/>00000-0000-00-000000-00000-00000000-00000000-00000000<br/>-00000000<br/>Fund 00000<br/>Appr Year 0000<br/>Allottee 00<br/>Reporting Entity 000000<br/>Object Class 00000<br/>Program 0000000<br/>Project 0000000<br/>WFO 0000000<br/>Local Use 0000000<br/>Quantity: 0<br/>Amount: \$0.00<br/>Percent: 0<br/>Subject To Funding: N</p> <p>Payment:<br/>VIPERS<br/><a href="https://vipers.doe.gov">https://vipers.doe.gov</a><br/>Any questions, please contact<br/>by call/email 855-384-7377 or<br/><a href="mailto:VipersSupport@hq.doe.gov">VipersSupport@hq.doe.gov</a><br/>Period of Performance: 07/29/2008 to 09/30/2028</p> |                 |             |                   |               |