Notice: By signing this Agreement, the Sponsor acknowledges in advance that its entity name and the title and non-proprietary description of the project are available for public release by the Contractor without further notice.

I. Parties to the Technical Services Agreement.
Alliance for Sustainable Energy, LLC as Management and Operating (M&O) Contractor for the National Renewable Energy Laboratory ("Contractor" or "NREL"), under U.S. Department of Energy Contract No. DE-AC36-08GO28308, has been requested by the "Sponsor" to perform the services set forth in the Scope of Work below.

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Contact name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Phone #</td>
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<td></td>
<td>Email</td>
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<table>
<thead>
<tr>
<th>Contractor</th>
<th>Contact name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Phone #</td>
</tr>
<tr>
<td>Golden, CO 80401</td>
<td>Email</td>
</tr>
</tbody>
</table>

II. Statement of Work.
Pursuant to the Technical Services Agreement and subject to the attached terms and conditions, Contractor will assign a duly authorized employee to perform the work agreed to as follows:

(a) Project Title:

(b) Non-proprietary Description of Project: [Insert a 1-2 sentence, non-proprietary description of the work to be performed.]

(c) Statement of Work: [insert full statement of work or enter “See Appendix A”]

Field of Use for potential license: N/A

(d) Deliverables: [insert deliverables or enter “See Appendix A”]

(e) Period of Performance: months

(f) Cost basis: Labor hours and materials

(g) Contractor Cost Estimate $ 00.00

| DOE Administrative Charge (3%) | $ 00.00 |

(h) TOTAL Cost Estimate $ 00.00

| (not to exceed $500,000) | Advance payment: $ 00.00 |

III. Acceptance of Technical Services Agreement.

<table>
<thead>
<tr>
<th>Sponsor Acceptance</th>
<th>Contractor Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Date</td>
</tr>
<tr>
<td>Name:</td>
<td></td>
</tr>
<tr>
<td>Title:</td>
<td></td>
</tr>
</tbody>
</table>

| Signature          | Date                  |
| Name:              |                       |
| Title:             |                       |

cc: Contracting Officer, DOE Golden Field Office

TSA (Update 3-2-2020)
Terms and Conditions for Technical Services Agreement

ARTICLE I. Scope of Technical Services. Subject to the following terms and conditions, Alliance for Sustainable Energy, LLC (herein also “Contractor” or “NREL”) agrees to provide Technical Services to the Sponsor in the defined work areas identified in the Scope of Work attached and incorporated herein. It is understood by the Parties that, except for the intellectual property provisions of this Agreement, Contractor is obligated to comply with the terms and conditions of the Department of Energy (herein also “DOE” or “Government”) M&O Contract when providing goods, services, products, processes, materials, or information to the Sponsor under this Agreement. The Parties understand that DOE has authorized the Contractor to use this Technical Services Agreement when appropriate and that the total cost to Sponsor will not exceed $500,000.

ARTICLE II. Term and Termination of Agreement. The Contractor’s estimated period of performance for completion of the Scope of Work is the term of this Agreement. The term shall be effective as the later date of (1) the date on which this Agreement is signed by the last of the Parties thereto, or (2) the date on which the Contractor receives advance payment from the Sponsor and funds are allocated to this Agreement. This Agreement may be terminated, in whole or in any part, at any time by either Party, without liability, upon giving ten (10) days written notice to the other Party. In the event of termination, the Sponsor shall be responsible for the Contractor’s costs (including closeout costs) through the effective date of termination, but in no event shall the Sponsor’s cost responsibility exceed the total cost to the Sponsor as described in the Scope of Work.

ARTICLE III. Costs. The Contractor has no obligation to continue or complete performance of the work at a cost in excess of its estimated cost. The Contractor agrees to provide at least thirty (30) days written notice to the Sponsor if the actual cost to complete performance will exceed Contractor’s estimated cost.

ARTICLE IV. Funding and Payment. This Technical Services Agreement is based on full cost recovery and the Contractor is required by the Government to receive advance funding before beginning work. The Sponsor shall provide sufficient funds in advance to reimburse the Contractor for costs to be incurred in performance of the work described in this Agreement, and the Contractor shall have no obligation to perform in the absence of adequate advance funds. If the estimated period of performance exceeds 90 days and the estimated cost exceeds $25,000, the Sponsor may, with the Contractor’s approval, advance funds incrementally. In such a case, the Sponsor shall provide to the Contractor, prior to any work being performed, an advance payment sufficient to cover anticipated work that will be performed for the first billing cycle. In addition, the Sponsor shall provide additional funding to ensure that funds remain available for work during subsequent billing cycles (collectively the advance payment of $_______ as set forth in Block II (h) of the attached cover page for this Agreement). Following Sponsor’s remittance of the advance payment, the Contractor will invoice the Sponsor each billing cycle (or as necessary) to maintain a balance of funding sufficient to cover anticipated work. Sponsor’s payment shall be due no later than thirty (30) days after receipt of Contractor’s invoice. Upon termination or completion, any excess funds shall be refunded by the Contractor to the Sponsor.

Sponsor shall enter this Agreement number on the check made payable to the Alliance for Sustainable Energy, LLC and mail payment to the following address:

Alliance for Sustainable Energy, LLC
Manager of the National Renewable Energy Laboratory
ATTN: Finance – Mailstop RSF041
15013 Denver West Parkway, Golden, CO 80401

ARTICLE V. Source of Funds. The Sponsor hereby warrants and represents that, if the funding it brings to this Technical Services Agreement has been secured through other agreements, such other agreements do not have any terms and conditions (including intellectual property) that conflict with the terms and conditions of this Technical Services Agreement.
Article VI. Tangible Personal Property. Upon termination of this Agreement, tangible personal property or equipment produced or acquired in conducting work under this Agreement shall be owned by the Sponsor. Tangible personal property or equipment produced or acquired as part of this Agreement will be accounted for and maintained during the term of the Agreement in the same manner as Department of Energy property or equipment. Costs incurred for disposition of property shall be the responsibility of the Sponsor and included in costs allocated in Article III or paid separately by the Sponsor.

ARTICLE VII. Prepublication Review. The Parties agree to secure prepublication approval from each other, which shall not be unreasonably withheld or denied beyond thirty (30) days.

ARTICLE VIII. Legal Notice. Any technical paper, article publication, or announcement of advances generated in connection with work done under this Technical Services Agreement, during the period of performance of the Agreement or in the future, shall give credit to the Sponsor as a sponsor of the work and shall contain the following legal notice: "The National Renewable Energy Laboratory, 15013 Denver West Parkway, Golden, CO 80401, is a national laboratory of the U.S. Department of Energy managed by the Alliance for Sustainable Energy, LLC for the U.S. Department of Energy under Contract Number DE-AC36-08GO28308."

ARTICLE IX. Disclaimer. THE GOVERNMENT AND CONTRACTOR MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO THE CONDITION OF THE TECHNICAL SERVICES; OR ANY INTELLECTUAL PROPERTY; OR PRODUCT MADE OR DEVELOPED UNDER THIS TECHNICAL SERVICES AGREEMENT; OR THE OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF THE TECHNICAL SERVICES OR RESULTING PRODUCT. THE GOVERNMENT OR CONTRACTOR WILL NOT BE LIABLE FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES.

ARTICLE X. General Indemnity. The Sponsor agrees to indemnify and hold harmless the Government, the Contractor, and persons acting on their behalf from all liability, including costs and expenses incurred, to any person, including the Sponsor, for injury to or death of persons or other living things or injury to or destruction of property arising out of the performance of the Agreement by the Government, the Contractor, or persons acting on their behalf, or arising out of the use of the services performed, materials supplied, or information given hereunder by any person including the Sponsor, and not directly resulting from the fault or negligence of the Government, the Contractor, or persons acting on their behalf.

ARTICLE XI. Product Liability Indemnity. Except for any liability resulting from any negligent acts or omissions of the Contractor or the Government, the Sponsor agrees to indemnify the Government and the Contractor for all damages, costs, and expenses, including attorney’s fees, arising from personal injury or property damage occurring as a result of the making, using, or selling of a product, process, or service by or on behalf of the Sponsor, its assignees, or licensees, which was derived from the work performed under this Technical Services Agreement. In respect to this Article, neither the Government nor the Contractor shall be considered assignees or licensees of the Sponsor, as a result of reserved Government and Contractor rights. The indemnity set forth in this paragraph shall apply only if the Sponsor shall have been informed as soon and as completely as practical by the Contractor and/or the Government of the action alleging such claim and shall have been given an opportunity, to the maximum extent afforded by applicable laws, rules, or regulations, to participate in and control its defense, and the Contractor and/or the Government shall have provided all reasonably available information and reasonable assistance requested by the Sponsor. No settlement for which the Sponsor would be responsible shall be made without the Sponsor’s consent unless required by final decree of a court of competent jurisdiction.

ARTICLE XII. Notice and Assistance Regarding Patent and Copyright Infringement. The Sponsor shall report to the DOE and the Contractor, promptly and in reasonable written detail, each claim of patent or copyright infringement based on the performance of this Technical Services Agreement of which the Sponsor has knowledge. The Sponsor shall furnish to the DOE and the Contractor, when requested by the DOE or the Contractor, all evidence and information in the possession of the Sponsor pertaining to such claim.
ARTICLE XIII. Patent Rights—Use of Facilities.
The terms and conditions of this Technical Services Agreement are not intended to be used for research and development, software development, or where there is a possibility of any intellectual property being conceived or created.

ARTICLE XIV. Rights in Technical Data—Use of Facilities. Subject to the provisions of this article, Sponsor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced under this Agreement. Data produced under this Agreement will be provided to the Sponsor who will be solely responsible for marking the data and removing the data from the facility by or before termination of this Agreement. The DOE and the Contractor shall have the right to publish and use any data provided to or generated by Contractor, and to permit others to do so unless such data is marked as "Proprietary Information" by the Sponsor. The Government and the Contractor agree not to disclose properly marked Proprietary Information to anyone other than the Sponsor without written approval of the Sponsor, except to Government employees who are subject to the statutory provisions against disclosure of confidential information set forth in the Trade Secrets Act (18 USC 1905). The Government shall have unlimited rights in technical data (including Proprietary Information) that are not removed from the facility by or before termination of this Agreement. Sponsor agrees to deliver to persons acting on behalf of DOE a non-proprietary description of the work to be performed under this Agreement.

ARTICLE XV. Assignment. Neither this Technical Services Agreement nor any interest therein or claim thereunder shall be assigned or transferred by either Party, except as authorized in writing by the other Party to this Technical Services Agreement, provided, the Contractor may transfer it to DOE, or its designee, with notice of such transfer to the Sponsor, and the Contractor shall have no further responsibilities except for the confidentiality, use, and/or nondisclosure obligations of this Technical Services Agreement. The obligation of the Contractor shall apply to any successor in interests continuing the management and operation of the DOE facility involved in this Technical Services Agreement.

ARTICLE XVI. Similar or Identical Services. The Government and/or the Contractor shall have the right to perform similar or identical services in the Statement of Work for other Sponsors as long as the Sponsor's Proprietary Information is not utilized.

ARTICLE XVII. Non Competition. The Sponsor states that, to the best of the Sponsor’s knowledge, the Contractor is not in competition with the domestic private sector by performing these Technical Services.

ARTICLE XVIII. Export Control. Each Party is responsible for its own compliance with laws and regulations governing export control.

ARTICLE XIX. Entire Agreement. It is expressly understood and agreed that this Technical Services Agreement and its attachments contain the entire Agreement between the Parties. Any agreement to materially change any of the terms and conditions of this Technical Services Agreement or the attachments shall be valid only if the changes are made in writing and executed by the Parties herein.