BASIC ORDERING AGREEMENT BETWEEN

ELSEVIER B.V.

AND

ALLIANCE FOR SUSTAINABLE ENERGY LLC MANAGEMENT AND OPERATING CONTRACTOR FOR THE NATIONAL RENEWABLE ENERGY LABORATORY (NREL) ON BEHALF OF DEPARTMENT OF ENERGY (DOE) INTEGRATED CONTRACTOR PURCHASING TEAM (ICPT)

BASIC ORDERING AGREEMENT NUMBER: **BEV-8-82069-00**

This Basic Ordering Agreement ("BOA") between Elsevier B.V., Radarweg 29, 1043 NX Amsterdam, The Netherlands ("Seller") and Alliance for Sustainable Energy, LLC, 15013 Denver West Parkway, Golden, CO 80401, USA ("Alliance"), management and operating contractor for the National Renewable Energy Laboratory on behalf of the U.S. Department of Energy ("DOE") Integrated Contractor Purchasing Team, is entered into to provide products and services to the following DOE/National Nuclear Security Administration (NNSA) contractors: Alliance; UChicago Argonne, LLC, management and operating contractor for Argonne National Laboratory; Brookhaven Science Associates, LLC, management and operating contractor for Brookhaven National Laboratory; Fermi Research Alliance, LLC, management and operating contractor for Fermi National Accelerator Laboratory; Battelle Energy Alliance, LLC, management and operating contractor for Idaho National Laboratory; Jefferson Science Associates, LLC, management and operating contractor for Thomas Jefferson National Accelerator Facility; Los Alamos National Security, LLC, management and operating contractor for Los Alamos National Laboratory; Bechtel Marine Propulsion Corporation, management and operating contractor for the Naval Nuclear Propulsion Program; Battelle Memorial Institute Pacific Northwest Division, management and operating contractor for Pacific Northwest National Laboratory; National Technology and Engineering Solutions of Sandia, LLC, management and operating contractor of Sandia National Laboratories; Savannah River Nuclear Solutions, management and operating contractor for Savannah River National Laboratory; and UT-Battelle, LLC, management and operating contractor for Oak Ridge National Laboratory ("Contractors").

ARTICLE 1 – DEFINITIONS

The following terms shall have the corresponding meanings in this BOA:

a. "Government" means the United States of America and includes the DOE, the NNSA or any duly authorized representative thereof.
b. "Item" means "commercial items" and "commercial component", as defined in FAR 52.101, as well as commercial services, including subscription services.
c. "Order" means individual requests by a Contractor for Items issued under this BOA.
d. "BOA Procurement Representative" means the person responsible for negotiating and administrating this BOA.
e. "Order Procurement Representative" means the person responsible for negotiating and administrating a particular Order issued under this BOA.
f. "Site-Specific Terms and Conditions" means those unique requirements of a Contractor issuing any particular Orders under this BOA agreed upon by the Seller and a Contractor, which will supplement the terms of this BOA as it pertains to those particular Orders.

ARTICLE 2 – ACCEPTANCE OF TERMS AND CONDITIONS

Seller, by signing the BOA or any Orders, agrees to furnish such quantities of products or services described in the Subscription Agreements as the Contractors may order during the term of this BOA, and agrees to comply with all terms and conditions, all specifications, and all other documents that this BOA and the relevant Order incorporates by reference or attachment. Upon receiving an Order from a Contractor, Seller shall have two weeks to explicitly reject the Order in a written

response to the relevant Contractor. If Seller fails to reject any Order in writing within such two-week period, Seller shall be deemed to have accepted the terms of the Order. Seller and the relevant Contractor hereby object to any terms and conditions contained in any acknowledgement of this BOA or of any Orders that are different from or in addition to those provided in the BOA or the relevant Order. Failure of a Contractor to enforce any of the provisions of the BOA or any Order shall not be construed as evidence to interpret the requirements of the BOA or Order, nor as a waiver of any requirement, nor shall such failure affect the right of the Contractor to enforce each and every provision. All rights and obligations shall survive final performance of the BOA and any Order thereunder.

ARTICLE 3 – INCORPORATION BY REFERENCE AND ORDER OF PRECEDENCE

Elsevier Subscription Agreements 1-Cell Press, 1-Engineering Village, 1-Knovel, 1-Reaxys, 1-Science Direct, 1-SciVal, and 1-Scopus (hereinafter "Subscription Agreements") are attached hereto as Attachment A and incorporated herein by reference.

This BOA also incorporates certain clauses by reference. These clauses apply as if they were incorporated in their entirety. For Federal Acquisition Regulation (FAR) provisions incorporated by reference, any use of "Contractor" shall mean Seller and any use of "Contracting Officer" shall mean the BOA Procurement Representative. The FAR clauses may be obtained from the BOA Procurement Representative upon request.

The following clauses are incorporated by reference:

FAR 52.219-8 Utilization of Small Business Concerns (Nov 2016)
FAR 52.222-21 Prohibition of Segregated Facilities (Apr 2015)
FAR 52.222-26 Equal Opportunity (Sept 2016) (E.O. 11426) (The required posters are available at:
https://www.dol.gov/ofccp/regs/compliance/posters/ofccpost.htm)
FAR 52.222-35, Equal Opportunity for Veterans (Oct 2015) (38 U.S.C. 4212(a))
FAR 52.222-36, Equal Opportunity for Workers with Disabilities (Jul 2014) (29 U.S.C. 793)
FAR 52.227-3 Patent Indemnity (Apr 1984)
DEAR 952.227-9 Refund of Royalties (Mar 1995)

Any inconsistencies among the documents applying to any Order placed under this BOA shall be resolved in accordance with the following descending order of precedence: (1) the particular Order, (2) any applicable Site-Specific Terms and Conditions, (3) this BOA, and (4) the relevant one of the Subscription Agreements.

ARTICLE 4 - SCOPE OF WORK

The Seller shall furnish such quantities of products or services described in Schedule 1 of each of the Subscription Agreements as any Contractor may order during the term of this BOA.

ARTICLE 5 – PERIOD OF PERFORMANCE

The period of performance for this BOA shall be for a three-year period as follows:

01/01/2018 through 12/31/2020

Each year, within the three-year period of performance for this BOA, is established as follows:

Year 1 – 01/01/2018 through 12/31/2018
Year 2 – 01/01/2019 through 12/31/2019
Year 3 – 01/01/2020 through 12/31/2020

ARTICLE 6 – ORDERS/DELIVERY/PAYMENT

Orders appropriately placed under this BOA shall receive the negotiated discounted price and shall have a term of a minimum period of one year. Each Contractor is responsible for placing its own Order(s) under this BOA and shall be direct-billed accordingly. No other Contractors will receive the benefit of or be obligated by another Contractor's Order. All Orders placed

hereunder shall reference the number of this BOA ([Agreement No. ##]) and each Contractor's own purchasing document number, as required. The term of this BOA is three years from the effective date of this BOA.

The work specified in Article 4 shall be completed and delivered in accordance with the relevant Subscription Agreement and subject to any Site-Specific Terms and Conditions.

Unless otherwise provided, terms of payment shall be Net 30 days from the latter of: (1) receipt of Seller's proper invoice, if required, or (2) delivery (and acceptance, if required by the Order) of Items/completion of work. Any offered discount shall be taken if payment is made within the discount period that Seller indicates. Payments may be made either by check, purchase card or electronic funds transfer (EFT), at the option of the Contractor. Payment shall be deemed made effective as of the date of mailing or the date on which an EFT is made. Notwithstanding anything to the contrary stated herein, the Contractor shall be entitled at any and all times to set off against any amounts payable by the Contractor hereunder any amount owing from Seller to the Contractor under Orders or any subcontracts with Seller.

ARTICLE 7 – FIXED PRICES

The Contractor shall be entitled to purchase goods and services listed in Schedule 1 of each of the Subscription Agreements at the fixed prices identified in Schedule 2 of the respective Subscription Agreement(s). The prices identified in Schedule 2 of the respective Subscription Agreement shall be fixed for the effective period of this BOA, unless the Contractor is otherwise notified. The Seller reserves the right to change any price reflected in Schedule 2 of the respective Subscription Agreement provided that written or electronic notification is provided to the Contractor 30 days in advance of such change.

ARTICLE 8 – TAXES

Tax collection and payment is specific to the Contractor issuing an Order; therefore, Seller should refer to the Site-Specific Terms and Conditions for each Order. In the event no Site-Specific Terms & Conditions regarding taxes are contained in an Order, the Order prices shall include all Federal, State & local taxes and duties, when applicable.

ARTICLE 9 – DATA REPORTING REQUIREMENTS

Once per year, Seller shall report annual savings to the Order Procurement Representative for each Contractor utilizing this BOA upon the written request by such Order Procurement Representative. Savings shall be calculated in one of the following two established methodologies: (1) BOA pricing paid below Seller's pricing previous price paid (Historically Pricing or established GSA Pricing), or (2) BOA pricing paid below Seller's most preferred supplier pricing.

ARTICLE 10 – CHANGES

a. Seller and the Contractor issuing the BOA may make changes within the general scope of the BOA by a bilateral modification to the BOA. Seller and a Contractor issuing the Order may make changes within the general scope of the Order by a bilateral modification to the Order. Such changes may include, without limitation, changes in (1) the description of the Item, (2) the quantities of Items ordered, (3) the method of shipment or packaging, and (4) the time or place of delivery, inspection, or acceptance. Seller shall comply with any such change made according to the timeline mutually agreed upon by the parties. If any change affects the cost of or the time required for performance, an equitable adjustment to the price and/or delivery requirements and other affected provisions of the BOA or any Order shall be made by the parties in a bilateral modification.

b. Only the BOA Procurement Representative is authorized on behalf of the Contractor to issue changes whether formal or informal to the BOA. Only the Order Procurement Representative is authorized on behalf of the relevant Contractor to issue changes whether formal or informal to the respective Order. If Seller considers that any direction or instruction by Contractor personnel constitutes such a change, Seller shall not rely upon such instruction or direction without written confirmation from the BOA Procurement Representative or the Order Procurement Representative, as the case may be.

ARTICLE 11 – ASSIGNMENT

Seller shall not assign any of its rights or obligations to third parties without the prior written consent of the relevant Contractor. Seller or its assignee may assign its rights to receive payment, meaning financial compensation, due as a result

of performance under Orders issued under this BOA to a bank, trust company, or other financing institution if the Contractor is furnished written notice of, and a signed copy of said assignment at the time of or before request for such payment. Seller shall not otherwise assign any of its rights or obligations to any third party without the prior written consent of the relevant Contractor. Payments to an assignee shall be subject to set off or recoupment for any present or future claims of a Contractor against Seller.

Contractors may assign this BOA and any Orders to DOE/NNSA, its designee, or a successor manager and operator and, in case of such transfer and upon written notice thereof to Seller, the Contractor shall have no further responsibilities hereunder.

ARTICLE 12 – BANKRUTPCY

If Seller enters into any proceeding relating to bankruptcy, it shall give written notice via certified mail to the BOA Procurement Representative within five days of initiation of the proceedings. The notification shall include the date on which the proceeding was filed, the identity and location of the court and a listing of the BOA and Order numbers for which final payment has not been made.

ARTICLE 13 – SUSPENSION

The Contractor issuing this BOA may, for any reason, direct the Seller to suspend performance of any part of or all of the performance of this BOA for an indefinite period of time. The Contractor issuing an Order may, for any reason, direct the Seller to suspend performance of any part of or all of the performance of the Order. If any such suspension significantly delays the progress of or causes the Seller additional direct expenses in the performance of the BOA or Order, not due to the fault or negligence of the Seller, the compensation to the Seller shall be adjusted by a modification to the BOA or Order and the time of performance shall be extended by the actual duration of the suspension. Any claim by the Seller for compensation of a schedule extension must be supported by an appropriate document asserted within ten (10) business days from the date an order is given to the Seller to resume the performance of the BOA or Order.

ARTICLE 14 – TERMINATION FOR CAUSE

a. Only the Contractor issuing this BOA may terminate the BOA, or any part hereof, for cause in the event of any default by Seller, or if Seller fails to comply with any of the terms and conditions of the BOA, or fails to provide the Contractor issuing the BOA, upon request, with adequate assurances of future performance. In the event of termination for cause, the Contractor issuing the BOA shall not be liable to Seller for any amount for Items not delivered. If it is determined that the Contractor issuing the BOA improperly terminated the BOA for default, such termination shall be deemed a termination for convenience. Only the Contractor issuing an Order may terminate the Order, or any part thereof, for cause in the event of any default by Seller, or if Seller fails to comply with any of the terms and conditions of the Order, or fails to provide the Contractor issuing the Order, upon request, with adequate assurances of future performance. In the event of termination for cause, the Contractor issuing the Order shall not be liable to Seller for any amount for Items not delivered. If it is determined that the Contractor issuing the Order improperly terminated the Order for default, such termination shall be deemed a termination for convenience. The Contractor desiring to terminate either this BOA or an Order for cause shall send the Seller written notice specifying the reasons for the termination and provide for a cure period of no less than 30 days following Seller's receipt of the written notice. Upon expiration of the 30 days (or longer period), the Contractor may issue a notice of termination for cause unless it is determined, in the Contractor's sole discretion, that the Seller's default or failure has been cured.

b. If the BOA or any Order is terminated for cause, the Contractor shall pay the mutually agreed-upon price for completed Items delivered. The relevant Contractor and Seller shall mutually agree on the amount of payment for all other deliverables.

c. The rights and remedies of any Contractor in this clause are in addition to any other rights and remedies provided by law or under the BOA or any Order.

ARTICLE 15 – TERMINATION FOR CONVENIENCE

The Contractor issuing this BOA reserves the right to terminate this BOA, or any part hereof, for its sole convenience by giving Seller a 30 day prior written notice of termination. A Contractor issuing an Order reserves the right to terminate the

Order, or any part thereof, for its sole convenience by giving Seller a 30 day prior written notice of termination. In the event of such termination, Seller shall immediately stop all work hereunder, shall immediately cause any and all of its suppliers and its subcontractors to cease work, and shall otherwise minimize costs to the Contractor. Payment for Items in the process of completion shall be adjusted between Seller and the Contractor in a fair and reasonable manner, but such payment shall exclude any allowance for the uncompleted portion of the Items, or any anticipated profits thereon. Such payment for Items already completed or in the process of completion shall be the total compensation due to Seller for termination for convenience by the Contractor.

ARTICLE 16 – ADMINISTRATIVE

BOA Procurement Administrator's Address is as follows:

Mary Hastings
Subcontract Administrator | NREL Procurement Office
National Renewable Energy Laboratory
Alliance for Sustainable Energy, LLC
15013 Denver West Parkway | MS RSF 030
Golden, CO 80401 | 303-275-3128 (Direct)
mary.hastings@nrel.gov | www.nrel.gov

BOA Sellers Administrator's Address is as follows:

Elsevier B.V.
c/o Regional Sales Office, Elsevier Inc.
230 Park Avenue, Suite 800
New York, NY 10169
USA

ARTICLE 17 – SITE-SPECIFIC TERMS AND CONDITIONS

The Seller acknowledges that each Contractor may have requirements unique to its Government Prime Contract, mission, and/or geographic location. Therefore, the Seller agrees that a Contractor placing an Order under this BOA reserves the right to incorporate its own Site-Specific Terms & Conditions, which shall be referenced in or attached to and incorporated into the Contractor's Order.

IN WITNESS WHEREOF, the parties hereto have executed this document as of the last date signed below.

ACKNOWLEDGED AND CONFIRMED;

ELSEVIER B.V.		**ALLIANCE FOR SUSTAINABLE ENERGY LLC**	
BY:		**BY:**	
NAME:	SIMON THOMPSON	**NAME:**	Paul Pierson
TITLE:	FINANCE DIRECTOR RSS	**TITLE:**	Group Manager Acquisition Services
DATE	01/25/2018	**DATE:**	1/25/18