HydroGEN Energy Materials Network (EMN) Master Material Transfer Agreement (MMTA) Among

Alliance for Sustainable Energy, LLC, manager and operator of National Renewable Energy Laboratory (NREL) under the authority of its Contract No. DE-AC36-08GO28308 with the Department of Energy (DOE) and having an office for business at 15013 Denver West Parkway, Golden, CO 80401;

Battelle Energy Alliance, LLC, manager and operator of Idaho National Laboratory (INL), under the authority of its Contract No. DE-AC07-05ID14517 with DOE and having an office for business at 2525 North Fremont Ave, P.O. Box 1625, Idaho Falls, ID 83415;

The Regents of the University of California, manager and operator of the Ernest Orlando Lawrence Berkeley National Laboratory (LBNL) under the authority of its Contract No. DE-AC02-05CH11231 with the DOE, and having an office for business at One Cyclotron Road, Berkeley, CA 94720;

Lawrence Livermore National Security, LLC, manager and operator of Lawrence Livermore National Laboratory (LLNL) under the authority of its Contract No. DE-AC52-07NA27344 and having an office for business at 7000 East Avenue, Livermore, CA 94550;

Sandia Corporation, a Delaware Corporation, manager and operator of Sandia National Laboratories (Sandia) under Contractor No. DE-AC-04-94AL85000 with DOE and having an office for business at 1515 Eubank SE, Albuquerque, NM 87123;

Savannah River Nuclear Solutions, LLC (SRNS), located at Savannah River Site (SRS), 203 Laurens St SW, Aiken, SC 29801, under its Contract No. DE-AC-09-08SR22470 with the DOE, as Managing and Operating Contractor of SRS.

NREL, INL, LBNL, LLNL, Sandia, and SRNL are jointly referred to as "Federal Laboratory Members". Federal Laboratory Members and all parties who are added to this MMTA in accordance with article 18 are hereinafter jointly referred to as the "Parties" or separately as "Party";

With the exception of LBNL, Federal Laboratory Members may elect to use, at their sole discretion, "Official Use Only" designation for sharing of their own confidential information among the Federal Laboratory Members to the extent that such information meets the requirements of DOE O 471.3, Admin. Change 1, and DOE M 471.3-1, Admin. Change 1, relating to the identification and protection of Official Use Only information. The Federal Laboratory Members, with the exception of LBNL, agree to protect such information in accordance with this Agreement to the extent not inconsistent with the aforementioned DOE documents. Any confidential information to be shared with LBNL may be accomplished through the use of the Multi-Party Non-Disclosure Agreement for the HydroGEN EMN.

The Parties anticipate the need to exchange catalyst and chemical samples in connection with their work under the HydroGEN Energy Material Network ("HydroGEN" or "HydroGEN EMN");

Therefore, the Parties agree to be bound by the terms of this Master Material Transfer Agreement ("MMTA") with an Effective Date to each Party as of the date such Party signs and will continue for the term of HydroGEN EMN funding.

I. Definitions:

- 1. HYDROGEN CONCIERGE: National Renewable Energy Laboratory.
- 2. PROVIDER: Party providing the MATERIAL.
- 2. PROVIDER SCIENTIST: The scientist providing the MATERIAL on behalf of the corresponding PROVIDER.
- 3. RECIPIENT: Party receiving the MATERIAL.
- 4. RECIPIENT SCIENTIST: The scientist(s) receiving the MATERIAL on behalf of the corresponding RECIPIENT.
- 5. MATERIAL: Catalyst and/or other chemical samples being transferred, as further defined in Appendix A, section 3. The MATERIAL shall not include other substances created by the RECIPIENT through the use of the MATERIAL that do not contain the MATERIAL.
- 6. MODIFICATIONS: Substances created by the RECIPIENT which contain/incorporate the MATERIAL.
- 7. COMMERCIAL PURPOSES: The sale, lease, license, or other transfer of the MATERIAL or MODIFICATIONS to a for-profit organization. COMMERCIAL PURPOSES shall also include uses of the MATERIAL or MODIFICATIONS by any organization, including RECIPIENT, to produce or manufacture products for general sale, or for the purpose of any sale, lease, license, or transfer of the MATERIAL or MODIFICATIONS to a for-profit organization. However, research sponsored by a for-profit organization that is a Party to this MMTA shall not be considered a use of the MATERIAL or MODIFICATIONS for COMMERCIAL PURPOSES unless any of the above conditions are met.
- 8. TRANSACTION: The exchange of MATERIALS or samples thereof between or among the Parties through the use of Appendix A, the Implementing Letter, signed by representatives of the PROVIDER and the RECIPIENT.

II. Terms and Conditions of this MMTA

1. The PROVIDER retains ownership of the MATERIAL, including any MATERIAL contained within, or incorporated into MODIFICATIONS, and including those cases in which

MATERIAL is further transferred by RECIPIENT to another Party under 3(b) below, and the PROVIDER shall remain free, in its sole discretion, to distribute the MATERIAL to others and to use it for its own purposes.

- 2. The RECIPIENT retains ownership of: (a) MODIFICATIONS (except that, the PROVIDER retains ownership rights to the MATERIAL included therein), and (b) those substances created through the use of the MATERIAL or MODIFICATIONS.
- 3. The RECIPIENT agrees that the MATERIAL:
 - (a) is to be used solely for the benefit of the HydroGEN EMN and its research;
 - (b) will not be further transferred, except to other Parties to this MMTA who have signed an Implementing Letter for the transaction, in furtherance of the purposes of the HydroGEN EMN. Such PROVIDER shall give written notification to the original PROVIDER and owner of the MATERIAL.
- 4. The RECIPIENT agrees to refer to the PROVIDER any request for the MATERIAL from anyone other than those persons working under the RECIPIENT SCIENTIST's direct supervision.

5. MODIFICATIONS.

- (a) The RECIPIENT shall have the right, without restriction, to distribute substances created by the RECIPIENT through the use of the MATERIAL, only if those substances are not MODIFICATIONS.
- (b) Without written consent from the PROVIDER, the RECIPIENT may not distribute MODIFICATIONS. Additionally, it is recognized by the RECIPIENT that using MODIFICATIONS for COMMERCIAL PURPOSES may require a commercial license from the PROVIDER, and the PROVIDER has no obligation to grant a commercial license to its ownership interest in the MATERIAL incorporated in the MODIFICATIONS. Nothing in this paragraph, however, shall prevent the RECIPIENT from granting commercial licenses under the RECIPIENT's intellectual property rights claiming such MODIFICATIONS, or methods of their manufacture or their use.
- 6. The RECIPIENT acknowledges that the MATERIAL is or may be the subject of a patent application. Except as provided in this MMTA, no express or implied licenses or other rights are provided to the RECIPIENT under any patents, patent applications, or other proprietary rights of the PROVIDER, including any altered forms of the MATERIAL made by the PROVIDER. In particular, no express or implied licenses or other rights are provided to use the MATERIAL, MODIFICATIONS, or any related patents of the PROVIDER for COMMERCIAL PURPOSES.

- 7. If the RECIPIENT desires to use or license the MATERIAL for COMMERCIAL PURPOSES, the RECIPIENT agrees, in advance of such use, to negotiate in good faith with the PROVIDER to establish the terms of a commercial license. It is understood by the RECIPIENT that the PROVIDER shall have no obligation to grant such a license to the RECIPIENT, and may grant exclusive or non-exclusive commercial licenses to others, or sell or assign all or part of the rights in the MATERIAL to any third party(ies), subject to any pre-existing rights held by others and obligations to the Federal Government or other sponsors.
- 8. The RECIPIENT is free to file patent application(s) claiming inventions made by the RECIPIENT through the use of the MATERIAL, but agrees to notify the PROVIDER upon filing a patent application claiming MODIFICATIONS or method(s) of manufacture or use(s) of the MATERIAL.
- 9. Any MATERIAL delivered pursuant to this MMTA is understood to be experimental in nature and may have hazardous properties. The PROVIDER MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE MATERIAL WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHTS.
- 10. Except to the extent prohibited by law, RECIPIENT agrees to assume all liability for damages which may arise from its use, storage or disposal of the MATERIAL, except to the extent that such liability arises from the negligence or willful misconduct of PROVIDER.
- 11. This MMTA shall not be interpreted to prevent or delay publication of research findings resulting from the use of the MATERIAL or the MODIFICATIONS. The RECIPIENT agrees to provide appropriate acknowledgement of the source of the MATERIAL in all publications.
- 12. The RECIPIENT agrees to use the MATERIAL in compliance with all applicable statutes and regulations. RECIPIENT further agrees to use the MATERIAL under suitable and appropriate containment conditions. RECIPIENT shall be solely liable for its use of the MATERIAL, including the proper disposal of the MATERIAL.
- 13. Obligations of RECIPIENT under this MMTA will terminate on the earliest of the following dates: (a) on completion of the RECIPIENT's current research with the MATERIAL as it relates to HydroGEN EMN, or (b) on thirty (30) days written notice by PROVIDER to RECIPIENT, or (c) on the end-date specified in an Implementing Letter, if used, provided that:
 - 13.1. if termination should occur under 13(a) or 13(c) above, the RECIPIENT will discontinue its use of the MATERIAL and will, upon direction of the PROVIDER, return or destroy any remaining MATERIAL. The RECIPIENT, at its discretion, will also either destroy the MODIFICATIONS or remain bound by the terms of this MMTA as they apply to MODIFICATIONS; or,

- 13.2. in the event that the PROVIDER terminates this MMTA under 13(b) above, other than for breach of this MMTA, or for cause such as an imminent health risk or patent infringement, the PROVIDER will defer the effective date of termination for a period of up to one year, upon written request from the RECIPIENT, to permit completion of research in progress. Upon the effective date of termination (or a deferred effective date of termination, as the case may be), RECIPIENT will discontinue its use of the MATERIAL and will, upon direction of the PROVIDER, return or destroy any remaining MATERIAL. The RECIPIENT, at its discretion, will also either destroy the MODIFICATIONS or remain bound by the terms of this MMTA as they apply to MODIFICATIONS.
- 14. Section II, Paragraphs 5, 6, 7, 8, 9, 10, and 11 shall survive termination.
- 15. The MATERIAL may be provided at no cost, or with an optional transmittal fee, solely to reimburse the PROVIDER for its preparation and distribution costs which are not otherwise covered under the HydroGEN funding to PROVIDER.
- 16. In view of its management by an institution of higher education, the Parties intend to conduct its activities as fundamental research under U.S. export regulations, and have many foreign persons who are students and employees. Accordingly, the Parties may not knowingly transfer to any Party any MATERIAL that is export controlled under the International Traffic in Arms Regulations, and may not knowingly transfer to any Party MATERIAL that is export controlled under the Export Administration Regulations except information that is classified as EAR99.

17. Notices.

The addresses, telephone numbers and facsimile numbers for the Parties are as follows:

Alliance for Sustainable Energy, LLC	Telephone:
15013 Denver West Parkway	(303)275-3028
Golden, CO 80401	Facsimile:
Attn: Eric Payne	(303) 275-3040

Battelle Energy Alliance, LLC

Attn: Jennifer Hoggard

Technology Deployment	Telephone:
2525 N Fremont Ave	(208) 526-6949
Idaho Falls, ID 83415-3898	

Lawrence Berkeley National Laboratory

Innovation & Partnerships Office	Telephone:
One Cyclotron Road, MS-56A-120	(510) 486-6467
Berkeley, CA 94720	Facsimile:
Attention: Licensing Manager	(510) 495-2950

Email: LicensingManager@lbl.gov

Lawrence Livermore National Security, LLC

Industrial Partnerships Office Telephone:

P.O. Box 808, L-795 (925) 422-3735

7000 East Avenue, L-795 Livermore, CA 94550

Sandia Corporation

7011 East Avenue Telephone: Livermore, CA 94550 (925) 294-4896

Attn: Rachel Wallace

Savannah River National Laboratory

203 Laurens St SW Telephone: Aiken, SC 29801 (803) 725-0406

Attn: Matt Biasiny

18. Upon receipt of an award under the HydroGEN EMN, the new party joining HydroGEN ("HydroGEN Partner") agrees to abide by the terms of this MMTA by signing a copy of the Third Party Material Transfer Agreement, which is Appendix B of this MMTA. The HYDROGEN CONCIERGE must accept and acknowledge receipt by written email of such Third Party MTA, and shall keep Appendix C updated with a list of all current Parties to this MMTA. HYDROGEN CONCIERGE will periodically notify Parties to the MMTA when Appendix C has been updated.

19. This MMTA may be signed in two or more counterparts, each of which shall be deemed an original, and all of which taken together shall be deemed one and the same instrument.

Signatures for Parties are on the following page.

APPENDIX A HydroGEN MMTA Implementing Letter

The purpose of this letter is to provide a record of the material transfer under the terms and conditions of the HydroGEN Energy Materials Network Master Material Transfer Agreement ("MMTA") to which both the PROVIDER and the RECIPIENT are parties, and to memorialize the agreement between PROVIDER SCIENTIST (identified below) and the RECIPIENT SCIENTIST (identified below) to abide by all terms and **RECIPIENT** MMTA. The organization's conditions of the HydroGEN Authorized Official will sign this letter on behalf of the RECIPIENT organization. The Authorized Official of RECIPIENT should sign two copies of this letter and return one fully executed copy to the PROVIDER. The PROVIDER will forward the MATERIAL to the RECIPIENT upon receipt of the signed copy from the RECIPIENT organization.

Please fill in all of the blank lines below:

1. PROVIDER: Party providing the MATERIAL	
Organization:	
Organization.	
PROVIDER SCIENTIST:	
Title:	
Address:	
Phone:	
E-mail:	
2. RECIPIENT: Party receiving the MATERIAL	
Organization:	
RECIPIENT SCIENTIST:	
Title:	
Address:	
Phone:	
E-mail:	
3. MATERIAL (Enter a complete description):	
Common Name:	
Sample Number:	
Description:	

4. Termination date for this letter (optional):				
5. Transmittal Fee to reimburse the PROVIDER for preparation and distribution costs (optional).				
Amount:				
6. Other Provisions the PROVIDER and RECIPIENT wish to include:				
This Implementing Letter is effective when signed by both parties. The parties executing this Implementing Letter certify that their respective organizations have accepted and signed an unmodified copy of the HydroGEN MMTA, and further agree to be bound by its terms, for the transfer specified above.				
PROVIDER				
Signature				
Name of Authorized Official				
Title				
Contact Address:				
Date:				
RECIPIENT				
Signature				
Name of Authorized Official				
Title				
Contact Address:				
Date:				

APPENDIX B

THIRD PARTY MATERIAL TRANSFER AGREEMENT

by the terms and Material Transfer to be a "Party" to below. This Appe	conditions of this HydroGEN Is Agreement to which this Apposuch agreement for all purpos	hereby agrees to be bound Energy Materials Network Master endix B is attached, and shall be deemed es from and after the latest date set forth the date receipt is acknowledged by E.
Party Name:		
Contact Name:		
Mailing Address:		
-		
Email address:		
Phone:		
Ву:		_()
Title:		
•		
Date:		

APPENDIX C

CURRENT LIST OF PARTIES

Alliance for Sustainable Energy, LLC
Battelle Energy Alliance, LLC
Lawrence Livermore National Security, LLC
Sandia Corporation
The Regents of the University of California through the Ernest Orlando Lawrence
Berkeley National Laboratory
Savannah River Nuclear Solutions, LLC

