

U.S. DEPARTMENT OF ENERGY

American-Made Geothermal Manufacturing Prize

VOUCHER GUIDELINES

Updated for the Make! Contest

12/17/2021 - Modification 1

Changes highlighted in blue

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INTRODUCTION

The <u>U.S. Department of Energy</u> (DOE), <u>Office of Energy Efficiency and Renewable Energy's</u> (EERE) <u>Geothermal Technologies Office</u> (GTO), in partnership with the EERE <u>Advanced Manufacturing Office</u>, <u>National Renewable Energy Laboratory</u> (NREL), and <u>Oak Ridge National Laboratory</u> (ORNL), launched the American-Made Geothermal Manufacturing Prize (Geothermal Prize) to spur innovation and address manufacturing challenges fundamental to operating in harsh geothermal environments. The prize also supports the ability of the geothermal industry to reach the target of 60 GWe of geothermal capacity by 2050 as outlined in the recently released *GeoVision* analysis. The Geothermal Prize will achieve these innovation outcomes through a series of prize competitions (Ready!, Set!, Make!, and Geo!), coupled with entrepreneurial empowerment by the American-Made Network (Network), a network of national laboratories and private organizations such as incubators, investors, and industry partners across the United States. The objective is to help entrepreneurs develop innovative additively manufactured technology concepts into prototypes ready for testing and on a pathway of accelerated innovation so that ideas can become products in months, not years. Along the way, competitors can win \$4.65 million in cash, vouchers, and additional incentives to advance their ideas.

This document provides details about how winners can use non-cash prize awards in the form of vouchers¹, to access tools, equipment, and expertise at national labs and private organizations. The intent of this voucher system is to allow prize winners from the Set! and Make! Contests to leverage the capabilities of the national labs, approved organizations, and facilities to further develop winners' concepts. The National Renewable Energy Laboratory (NREL), as Prize Administrator, will manage administrative activities related to vouchers.

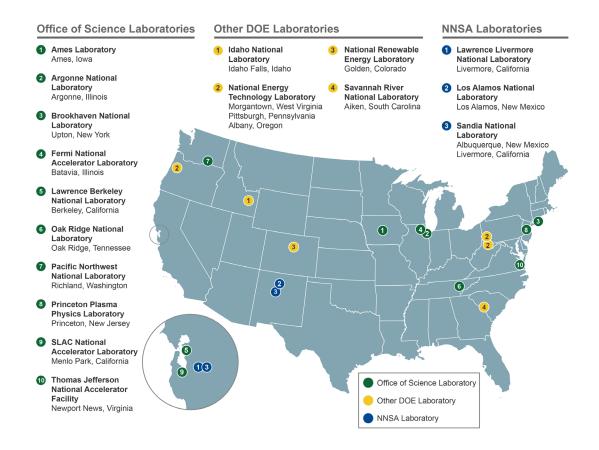
VOUCHER OVERVIEW

As noted in Section 1, Prize vouchers will allow winners from the Set! and Make! Contests to access tools, equipment, and expertise at national laboratories and approved organizations and facilities—in turn supporting the development, testing, and validation of their innovative solutions. The guidelines in this document are applicable to Make! Contest winners, who each receive a \$75,000 voucher.

Winners have the opportunity to use vouchers at DOE's 17 national laboratories (see map). Semi-Finalists and Finalists in applicable contest stages will receive a Voucher Digest, which details steps to redeem voucher services as well as select national lab capabilities in geothermal energy and advanced manufacturing.

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^{1 15} U.S. Code § 3719 - Prize Competitions



Winners may also use vouchers at organizations and/or facilities (e.g., fabrication, prototyping, manufacturing) that are on the approved list on the American-Made Challenges website.

The DOE national laboratories, together with the approved organizations and facilities, are referred to as Voucher Service Providers (VSPs).

VSPs may provide competitors with:

- Access to hardware and development tools
- Access to national laboratories, universities, and private laboratories
- Specialized facilities with additive, reductive, and digital manufacturing support
- Testing and validation capabilities
- Other expert services that may be negotiated between the winners and the lab, organization, or facility.

Details on how applications will be reviewed and approved, as well as additional VSP use policies are discussed in subsequent sections.

I'm a winner and the organization I want to work with is not on the list. How can they get on the approved list?

Any interested organization can apply to be added to the list of approved organizations at:

https://americanmadechallenges.org/connect.html. More information is found in Section 4 of this document.

GEOTHERMAL MANUFACTURING PRIZE VOUCHER PROCESS

The process for vouchers issued to Make! Contest winners consists of the following steps, which are designed to pair competitors with the VSPs that can provide valuable assistance for their specific projects. This process starts with Make! competitors' submission packages for the Make! Contest:

Any team competing in the Make! Contest must:

- 1. Connect—Competitors review the offerings and capabilities provided by the American-Made Network organizations and/or facilities and national labs to identify prospective VSPs. Communication of selected national lab capabilities focusing on geothermal technologies and advanced manufacturing will be released through the "Voucher Capabilities Menu," that is emailed to competitors during the Make! Contest by NREL. Competitors can make direct contact with as many national labs or VSPs as they would like and—when needed—seek assistance from the Prize Administrator to help facilitate connections.
- Align—VSPs and Make! Competition teams contact one another—with the assistance of the
 Prize Administrator, when needed, to exchange ideas and discuss the scope and outcomes for
 the voucher funds.
- 3. Decide and Propose—After talking with potential VSPs, competitors decide which lab or organization/facility they want to work with and identify the relevant researcher or Principal Investigator (PI) (see Section 6 for more details). Competitors submit a voucher work slide as a part of the Make! Contest submission package. The slide must identify the VSP and relevant researcher or PI, confirmation of researcher/PI interest (e.g. e-mail attachment, letter of support), a short description of the work, and bullet points of outcomes and deliverables. Proposed work with VSPs will be evaluated as part of the Make! Contest submission package. Winners of the Make! Contest will receive vouchers.

If you win the Make! Contest and enter the Geo! Contest, then you must also:

- 4. **Complete Statement of Work**—Winners of the Make! Contest interested in using their voucher must fill out and submit the Voucher Prize Acceptance Form (Appendix B) within 5 business days of Make! winners announcement, A full statement of work (SOW) must also be drafted jointly with the VSP, using a template provided by the Prize Administrator. The SOW must be completed (including all negotiations with the VSP) no later than 30 calendar days after Make! Winners are announced. Failure to comply with process requirements and have a negotiated Statement of Work in place within this timeline may result in forfeit of the voucher.
- 5. **Contract**—Once the approved SOW is in place, teams enter into a formal agreement with the VSP. The format of this agreement is unique to each VSP. Qualified activities relate to work that is directly in alignment with progressing the solution or product and must adhere to the policies described in these guidelines. The VSPs will perform the work and receive compensation in accordance with the payment process described in Section 6. It is expected that an agreement between the competitor and VSP will be in place prior to the Make! submission date.

National laboratories will require a cooperative research and development agreement (CRADA). Select national lab CRADA templates (based on the DOE model CRADA template (available here as Attachment 3)) are provided in Appendices C-H. Please note that the CRADA would be a separate agreement between the parties to be approved by DOE including a joint work statement (Appendix E) describing the purpose, scope, schedule, and estimated cost of a proposed CRADA, as explained in section 6.² Any Lab or participant background intellectual property needed to perform CRADA work or practice results may be handled in a background IP attachment to the CRADA.

6. **Begin Work**—Once the agreement between the Competitor and VSP is in place, work can begin. Work may continue for one year after the voucher is awarded at the Set contest. Competitors and VSPs can renegotiate and resubmit the SOW if competitor needs change over time.

VOUCHER SERVICE PROVIDERS

VSPs are any of DOE's 17 national laboratories, as well as <u>approved private organizations and facilities</u> included in the American-Made Network.

The following 10 national labs have indicated specific capabilities that could be useful for Geothermal Manufacturing Prize teams (capabilities are not guaranteed and depend on availability of staff and equipment). Capabilities at these labs for vouchers can be found in the Voucher Digest and Menu of Capabilities sent to all Make! competitors.

Argonne National Laboratory (ANL), Lemont, Illinois
Brookhaven National Laboratory (BNL), Upton, New York
Idaho National Laboratory (INL), Idaho Falls, Idaho
Lawrence Berkeley National Laboratory (LBNL), Berkeley, California
Lawrence Livermore National Laboratory (LLNL), Livermore, California
Los Alamos National Laboratory (LANL), Los Alamos, New Mexico
National Renewable Energy Laboratory (NREL), Golden, Colorado
Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee
Pacific Northwest National Laboratory (PNNL), Richland, Washington
Sandia National Laboratories (SNL), Albuquerque, NM/ Livermore, California

Private organizations and facilities approved to provide services to winners of the Make! competitions are available on the American-Made Challenge website (https://americanmadechallenges.org/connect.html). Organizations and facilities not currently approved as VSPs can apply through the website with the following information:

Description of services offered

² Please note that to the extent that there is any inconsistency between the prize rules and the CRADA terms and conditions, e.g., the Government purpose license (e.g., Appendix E, articles VI.C. and VII.C.) and a U.S. competitiveness requirement (e.g., Appendix E, article VIII) applicable to intellectual property developed in the performance of the CRADA, according to the CRADA terms and conditions, for example, the CRADA would take precedence.

- Website
- Location of business
- History of business
- Examples of success with previous customers in the area of services that the organization is offering for the Geothermal Manufacturing Prize.

The Prize Administrator, at its sole discretion, determines whether a specific non-national lab organization may become an approved VSP. The Prize Administrator will review VSP applications to become an approved VSP, which must establish, at a minimum, that:

- The entity is an incorporated U.S. business that has been in existence for at least 12 months at the time the application is submitted.
- The entity has an active website that describes the organization's capabilities.
- The entity offers capabilities, facilities, and services that are broadly available to interested parties.
- The business entity has a history of success in producing, developing, testing, validating, prototyping, and manufacturing products and solutions.

VOUCHER USE POLICIES

The following terms specify the voucher use policy for Make! Contest winners:

- Voucher Recipients—Only Make! winners will receive vouchers for the Make! Contest.
- **VSP dissemination of work—**Voucher funds cannot be split between more than three entities for each voucher. The minimum amount of work with any VSP must be \$10,000.
- **Approved VSP—**Competitors may use a voucher only at a DOE national lab or a VSP that is approved by the Prize Administrator and listed on the American-Made Challenge website.
- Allowable work—All work conducted by the VSPs and funded through vouchers must be
 exclusively dedicated to advancing the competitor's innovation selected in the Make! Contest.
 Additionally, funds must be used for developing, prototyping, testing, or validating the
 innovation. When considering whether work will advance a particular innovation, the Prize
 Administrator will look to tangible and measurable outcomes related to advancing the
 innovation. Costs of the work must be reasonable. No alcohol, food, travel, or other personal
 expenses will be allowed.
- Best Value Due Diligence—Competitors are solely responsible for engaging national labs and approved VSPs and establishing scopes of work under the voucher system. Competitors must determine which VSPs they will work with and conduct their own due diligence to determine the best value of the technical assistance covered by the voucher. Competitors may also seek assistance from Connectors in the American-Made Network³ to help facilitate relationships and agreements. The Prize Administrator staff will not intervene, mediate, or negotiate on behalf of competitors for the use of vouchers at any point in this program.

³ To learn more about the American-Made Network and Connector Organizations, please visit https://americanmadechallenges.org/connect.html.

- Responsibility—It is the competitor's sole responsibility to ensure that a selected organization or facility is on the approved list on the American-Made Network website (https://americanmadechallenges.org) and that the voucher SOW is in accordance with the guidelines herein. The competitor shall pay any upfront payments required by the non-lab VSPs at its own risk. The competitor is also solely responsible for managing the process and the work products including any changes, delays, risks, conflicts, or disputes. The Prize Administrator will not be part of the contract or agreement between the competitor and a non-national lab VSP nor will it be a guarantor of the technical outcomes, work products, or quality of the services offered by a non-national lab VSP. If, for whatever reason, the work is not completed or a dispute arises between the competitor and a VSP, resolution is entirely the responsibility of the competitor. The Prize Administrator will not intervene or mediate in such cases and will not bear any costs for dispute resolution among the parties.
- Protecting Innovation Intellectual Property (IP)—When a competitor is working with a nonnational lab VSP, the competitor is solely responsible for ensuring that the facility signs any relevant agreements to protect IP. The competitor is also responsible for the payment associated with protecting IP, including any relevant patents.
 - IP-Related Restrictions—There are some IP restrictions and controls if the voucher payments are processed through a CRADA or Memorandum Purchase Order (MPO) options, as described briefly in Section 3. Review the full details in Section 6.
- Arms-Length Transactions—The relationship between a competitor and a VSP should avoid actual conflicts of interest or the appearance of conflicts of interest. A competitor and a VSP should act independently and should not have any relationship to each other beyond providing services. All parties must be acting in their own self-interest and not be subject to any pressure or duress from the other party.
- Process Compliance—All competitors agree to adhere to the requirements contained in this
 document. Failure to follow these requirements may limit competitors' ability to acquire voucher
 funds.
- Use or Lose—Competitors must submit a completed Voucher Statements of Work for Prize
 Administrator review within 4 weeks of the relevant contest announcement of winners. Failure
 to do so may result in forfeiture of voucher funds. Vouchers will expire 1 year after the winners
 of the Make! Contest are announced. Vouchers cannot be redeemed for cash and may not be
 transferred to other parties.

VOUCHER AGREEMENTS AND PAYMENTS

Each competitor may receive reimbursement only for work up to three VSPs (labs and non-labs included).

Work with NREL

To work with NREL, participants are required to enter into a Cooperative Research & Development Agreement (CRADA). A signed CRADA gives a competitor maximum collaborative flexibility with a national lab and allows additional private funds to be used to expand the SOW. It also defines ownership of any intellectual property developed during voucher-funded work as well as other specifics of the collaboration. Even if competitors do not win a Make! Prize, they may still enter into a CRADA using private funds. In order to enter into a CRADA with NREL, the following documents must be completed:

- Participant Data Sheet To be completed as soon as possible after winning the Make! competition, a completed Participant Data Sheet begins the process. A sample Participant Data Sheet can be found in Appendix C.
- Joint Work Statement All projects must have a joint work statement (JWS) describing the
 proposed project scope to be covered with the voucher funds. A joint work statement template is
 included in Appendix D. The JWS should be developed collaboratively by the teams and the lab
 staff who will be conducting work for them and must include a budget for the proposed work. The
 JWS must be completed within 4 weeks after winning the Make! Contest.
- Signed CRADA Once the Participant Data Sheet and Joint Work Statement are complete, NREL's Tech Transfer Office will have teams sign a CRADA. It is expected that the CRADA will be accepted without any changes to the terms and conditions. The sample CRADA is found in Appendix E. It is expected that competitors will have a signed CRADA in place in time to complete the proposed scope of work by the Make! Contest submission deadline. However, depending on timing and what is required by the teams, there may be a delay in getting access to specific equipment or researchers. NREL will do its best to try to expedite requests from Geothermal Prize teams as much as possible. Once a CRADA is signed, the Prize Administrator will transfer funds directly to the NREL researcher for use.

NREL will share an informational webinar on CRADAs and partnerships with NREL prior to the Make! contest deadline.

Work with Other National Labs

When working with a national lab other than NREL, the competitor must work directly with that lab to complete a Statement of Work (Appendices F-H) no later than calendar 30 days after winning the Make! competition. Participants planning to work with ORNL and SNL should use Appendices G and H respectively for completing a Statement of Work. For completing a Statement of Work with all other national labs, participants should use Appendix F. This Statement of Work must be submitted to the Prize Administrator (GeothermalPrize@nrel.gov) with indications of approval by both the competitor and the national lab.

Once NREL receives this Statement of Work, NREL will work with the desired lab to complete an MPO. The Prize Administrator will directly transfer the allocated voucher funds to the selected lab to perform the work as specified in the MPO. Once the transfer occurs, the selected national lab must accept the funds to complete the transfer and set up the funding structure for the researchers. The actual timing for each lab funds transfer will depend on the individual labs, but the Prize Administrator will work closely with all selected labs to ensure a smooth and quick funds transfer process. If work under this MPO is not completed within 1 year of the time the competitor wins the prize, the funds will be returned to NREL.

Work with a Private Facility

Competitors hoping to expend voucher funds with a non-lab VSP must first negotiate a Voucher SOW and an itemized budget with a VSP. Then the competitor must provide documentation of the agreed-upon SOW and the budget to the Prize Administrator within 4 weeks after winning the Make! Competition. The Prize Administrator will review the application against the standards for work described in this document and may provide feedback and suggested changes to ensure that the SOW describes work that may be reimbursable. Prize Administrator feedback is not a guarantee that work performed by a non-lab VSP will be reimbursed. Once the work is completed, the Prize Administrator will conduct a review of the work and reimburse the competitor in accordance with these guidelines.

The work is then funded by the competitor. The competitor is also responsible for signing any relevant contracts or agreements with the non-national lab VSP. Once the work is complete, and the competitor has paid the VSP, the competitor may request reimbursement from the Prize Administrator. The Prize Administrator will review the work against the allowability requirements, evidence of the completed work, and evidence of payment and compare the invoice for expenses incurred against the planned budget and SOW. Submitting photos, videos, and other documentation to show work completed is required to help facilitate rapid review and reimbursement. The Prize Administrator will make a determination of whether the funds were expended in compliance with the voucher requirements. Reimbursement of funds will be made at the sole discretion of the Prize Administrator. The Prize Administrator will make only a single payment per non-lab VSP engaged by the competitor.

APPENDIX A - FAQs

How many different labs or facilities can I work with?

You can split your voucher a maximum of three ways. The minimum amount spent with any lab or facility is \$10,000.

When do I have to decide where I'm going to redeem my voucher?

In your Make! submission, you must include a Voucher Response Slide that outlines with lab(s)/facility(ies) you will work with, the PI(s), and an overview of the work to be completed. Your Voucher Response Slide must represent your final decision on how you will redeem your voucher.

How long do I have to use my voucher?

Your voucher expires one year after it is awarded at the conclusion of Make!. All voucher work must be completed by that date.

I'm a winner and the organization I want to work with is not on the list. How can they get on the approved list?

Any interested organization can apply to be added to the list of approved organizations at: https://americanmadechallenges.org/connect.html.

APPENDIX B – VOUCHER PRIZE ACCEPTANCE FORM

You will be asked to complete this form within 5 business days of winning the Make! Contest.

In addition to the cash prize, you have won \$75,000 in vouchers to use at a national lab or eligible private facility in the American-Made Network. This form serves as an agreement between the Prize Administrator and the winning team and documents the team's intent to utilize vouchers.

By signing this document, you are acknowledging that you understand and will adhere to the following:

- You will be responsible for understanding all of the requirements for utilizing vouchers as outlined in the Voucher Guidelines.
- You must decide on the technical Statement of Work (SOW) and how you intend to utilize the
 voucher within 1 month from winning the Make! Contest. This includes documenting which lab,
 facility, or researcher you are planning to work with. If you do not intend to utilize the full voucher
 amount, the remaining balance of voucher funds will be forfeited at the time the SOW is
 approved.
- All SOWs must be approved by the Prize Administrator prior to work commencing.

Tell us how you will redeem your \$75,000 voucher (If you are splitting your voucher between up to

thre	ee entities, select multiple choices below.:
	I intend to redeem my voucher at NREL Amount: \$
	I understand that a CRADA will need to be established to work with NREL on collaborative research. I agree to complete the Joint Work Statement with the NREL PI within one month of being awarded this voucher. I understand that failure to complete this Joint Work Statement may result in forfeit of the voucher.
	I intend to redeem my voucher at one or more national labs that is not NREL. Fill out each line below
witl	h budget information on each non-NREL lab.
	Lab #1 Amount: \$ Lab #2 Amount: \$ Lab #3 Amount: \$
	I will work directly with the national lab to put a SOW in place. I agree to share the finalized SOW and budget with the Prize Administrator within one month of being awarded this voucher. I understand that failure to have a SOW in place with the national lab of my choice within 1 month may result in forfeit of the voucher.
	I intend to redeem my voucher at one or more private facilities. Fill out each line below with budget
info	ormation on each private facility.
	Private Facility #1 Amount: \$ Private Facility #2 Amount: \$ Private Facility #3 Amount: \$

I will work directly with the identified facility to develop a SOW within one month and provide the documentation to the Prize Administrator before work commences. I agree to fully fund the work

completed at the facility and will provide proof of work completed to the Prize Administrator. I will
redeem my voucher as a cash prize, which will be paid to my for-profit company. I understand that
failure to have a SOW in place with an American-Made Network facility may result in forfeiting the
voucher.

I am working with the following eligible facility: _		
Printed Name:	<u></u>	
Signature:	Date:	

APPENDIX C – WORK WITH ORNL: CRADA

STEVENSON-WYDLER (15 U.S.C. 3710a) SHORT-FORM COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT

(hereinafter

"CRADA") No.NFE-

1X-0XXXX

BETWEEN

UT-Battelle, LLC

under its U.S. Department of Energy Contract No. DE-AC05-00OR22725 (hereinafter "Contractor")

AND

Participant

(hereinafter "Participant"),

both being hereinafter jointly referred to as the "Parties."

ARTICLE I: DEFINATION

- A. "Government" means the United States of America and agencies thereof.
- B. "DOE" means the Department of Energy, an agency of the United States of America.
- C. "Contracting Officer" means the DOE employee administering the Contractor's DOE contract.
- D. "Generated Information" means information produced in the performance of this CRADA.
- E. "Proprietary Information" means information which is developed at private expense outside of this CRADA, is marked as Proprietary Information, and embodies: (1) trade secrets; or (2) commercial or financial information which is considered privileged or confidential under the Freedom of Information Act [5 USC 552 (b)(4)].
- F. "Protected CRADA Information" means Generated Information which is marked as being Protected CRADA Information by a Party to this CRADA and which would have been Proprietary Information had it been obtained from a non-federal entity.
- G. "Subject Invention" means any invention of the Contractor or Participant conceived of or first actually reduced to practice in the performance of work under this CRADA.
- H. "Intellectual Property" means patents, trademarks, copyrights, mask works, Protected CRADA Information and other forms of comparable property rights protected by Federal law and other foreign counterparts.
- I. "Background Intellectual Property" means the Contractor's Intellectual Property identified

by the Contractor in Appendix B, Background Intellectual Property, which was in existence prior to or is first produced outside of this CRADA, except that in the case of inventions in those identified items, the inventions must have been conceived outside of this CRADA and not first actually reduced to practice under this CRADA to qualify as Background Intellectual Property.

ARTICLE II: STATEMENT OF WORK, TERM, FUNDING AND COSTS

- A. Appendix A is the Statement of Work.
- B. The effective date of this CRADA shall be the latter date of: (1) the date on which it is signed by the last of the Parties; or (2) the date on which it is approved by DOE. The work to be performed under this CRADA shall be completed within ?? (XX) months from the effective date.
- C. The Participant's estimated contribution is \$XX,XXX, which includes \$XX,XXX funds-in. The Government's estimated contribution, which is provided through Contractor's contract with DOE, is \$XX,XXX, subject to available funding.
- D. For CRADAs that include (non-Federal) funding on a funds in basis, the Participant shall provide Contractor, prior to any work from being performed a budgetary resource sufficient to cover the anticipated work that will be performed during the first billing cycle. In addition, the Participant shall provide sixty (60) days of additional tunding to ensure that funds remain available for project during subsequent billing cycles. Failure of Participant to provide the necessary advance funding is cause for termination of this CRADA in accordance with the Article XIII of this CRADA. A billing cycle is the period of time between billings, usually thirty (30) days. The billing cycle is complete when the customer is billed for services rendered.

ARTICLE III: PERSONAL PROPERT

Any tangible personal property produced or acquired in conducting the work under this CRADA shall be owned by the Party paying for it. There will be no jointly funded property. Personal property shall be disposed of as directed by the owner at the owner's expense.

ARTICLE IV: DICLAIM R

THE GOVERNMENT, THE PARTICIPANT, AND THE CONTRACTOR MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO THE CONDITIONS OF THE RESEARCH OR ANY INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA, OR THE OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR RESULTING PRODUCT. NEITHER THE GOVERNMENT, THE PARTICIPANT, NOR THE CONTRACTOR SHALL BE LIABLE FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ATTRIBUTED TO SUCH RESEARCH OR RESULTING PRODUCT, INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA.

ARTICLE V: PRODUCT LIABILITY

Except for any liability resulting from any negligent acts, or willful misconduct or omissions of Contractor or Government, Participant agrees to hold harmless the Government and the Contractor for all damages, cost and expenses, including attorney's fees, arising from personal injury or property damage as a result of the making, using, or selling of a product, process or service by or on behalf of the Participant, its assignees or licensees, which was derived from the work performed under this CRADA.

ARTICLE VI: RIGHTS IN SUBJECT INVENTIONS

The Parties agree to promptly disclose in writing to each other every Subject Invention in sufficient detail to comply with the provisions of 35 USC §112 well before any statutory bars may arise under 35 USC §102. Each Party shall have the first option to retain title to any of its Subject Inventions. If a Party elects not to retain title to any of its Subject Inventions, then the other Party shall have the option of electing to retain title to such Subject Inventions under this CRADA. The Participant has the option to

choose an exclusive license, for reasonable compensation, to the Contractor's Subject Inventions, in the field of use of *Field of Use*.

The Parties acknowledge that the DOE may obtain title to each Subject Invention reported under this Article for which a patent application is not filed, a patent application is not prosecuted to issuance, or any issued patent is not maintained by either Party to this CRADA. The Government shall retain a nonexclusive, non-transferable, irrevocable, paid-up license to practice, or to have practiced, for or on its behalf all Subject Inventions throughout the world.

For Subject Inventions conceived or first actually reduced to practice under this CRADA which are joint Subject Inventions made by the Contractor and the Participant, title to such Subject Inventions shall be jointly owned by the Contractor and the Participant.

The Parties acknowledge that the DOE has certain march-in rights to any Subject Inventions in accordance with 48 CFR 27.304-1(g) and 15 USC 3710a(b)(1)(B) and (C).

ARTICLE VII: RIGHTS IN DATA

- A. The Parties and the Government shall have unlimited rights and each of them shall have a right to use all Generated Information produced by, or information provided to, the Parties under this CRADA which is not marked as being Protected CRADA Information or Proprietary Information.
- B. <u>PROPRIETARY INFORMATION:</u> Each Party agrees to not disclose properly marked Proprietary Information provided by the other Party to anyone other than the providing Party without the written approval of the providing Party, except to Government employees who are subject to 18 USC 1905.
- C. PROTECTED CRADA INFORMATION: Each Party may designate and mark as Protected CRADA Information (PCI) any qualifying Generated Information produced by its employees. For a period of years [not to exceed five years] from the date it is produced, the Parties agree not to further disclose such PCI except as necessary to perform this CRADA or as requested by the DOE Contracting Officer to be provided to other DOE facilities for use only at those DOE facilities with the same protection in place and marked accordingly. Government employees who are subject to 18USC 1905 may have access to PCI.
- D. CESSATION OF OBLIGATIONS REGARDING PCI AND PROPRIETARY INFORMATION: The obligations relating to the disclosure or dissemination of Protected CRADA Information and Proprietary Information shall end if any such information becomes known without fault of either party, or if such information is developed independently by a Party's employees who had no access to the PCI or Proprietary Information.
- E. <u>COPYRIGHT</u>: The Parties may assert copyright in any of their Generated Information. The Parties hereby acknowledge that the Government or others acting on its behalf shall retain a nonexclusive, royalty-free, worldwide, irrevocable, non-transferable license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government, all copyrightable works produced in the performance of this CRADA, subject to the restrictions this CRADA places on publication of Proprietary Information and Protected CRADA Information.

If a Party copyrights computer software produced in the performance of this CRADA, the Party will provide the source code, object code, and expanded abstract, and the minimum support documentation needed by a competent user to understand and use the software to DOE's Energy Science and Technology Software Center (ESTSC) via www.osti.gov/estsc. The Party shall inform

ESTSC when it abandons or no longer commercializes the computer software. Until such notice to ESTSC, the Government has for itself and others acting on its behalf, a royalty-free, nontransferable, nonexclusive, irrevocable worldwide copyright license to reproduce, prepare derivative works, and

perform publicly and display publicly, by or on behalf of the Government. (narrow license). After the Party owning the Computer Software abandons or no longer commercializes the Computer Software, the Government has for itself and others acting on its behalf, a royalty-free, nontransferable, nonexclusive, irrevocable worldwide copyright license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. (broad license).

ARTICLE VIII: U.S. COMPETITIVENESS

The Parties agree that a purpose of this CRADA is to provide substantial benefit to the U.S. economy.

- A. In exchange for the benefits received under this CRADA, the Participant therefore agrees to the following:
 - 1. Products embodying Intellectual Property developed under this CRADA shall be substantially manufactured in the United States; and
 - 2. Processes, services, and improvements thereof which are covered by Intellectual Property developed under this CRADA shall be incorporated into the Participant's manufacturing facilities in the United States either prior to or simultaneously with implementation outside the United States. Such processes, services, and improvements, when implemented outside the United States, shall not result in reduction of the use of the same processes, services, or improvements in the United States.
- B. The Contractor agrees to a U.S. Industrial Competitiveness clause in accordance with its prime contract with respect to any licensing and assignments of its Intellectual Property arising from this CRADA, except that any licensing or assignment of its intellectual property rights to the Participant shall be in accordance with the terms of Paragraph A of this Article.

ARTICLE IX: EXPORT ROL

EACH PARTY IS RESPONSIBLE FOR ITS OWN COMPLIANCE WITH SUCH LAWS. EXPORT LICENSES OR OTHER AUTHORIZATIONS FROM THE U.S. GOVERNMENT MAY BE REQUIRED FOR THE EXPORT OF GOODS, TECHNICAL DATA OR SERVICES UNDER THIS AGREEMENT. THE PARTIES ACKNOWLEDGE THAT EXPORT CONTROL REQUIREMENTS MAY CHANGE AND THAT THE EXPORT OF GOODS, TECHNICAL DATA OR SERVICES FROM THE U.S. WITHOUT AN EXPORT LICENSE OR OTHER APPROPRIATE GOVERNMENTAL AUTHORIZATION MAY RESULT IN CRIMINAL LIABILITY.

ARTICLE X: REPORTS AND ABSTRACTS

The Parties agree to produce the following deliverables:

- 1. an initial abstract suitable for public release; and
- 2. a final report, to include a list of Subject Inventions.

It is understood that the Contractor has the responsibility to provide this information at the time of its completion to the DOE Office of Scientific and Technical Information. The Participant agrees to provide the above information to the Contractor to enable full compliance with this Article.

The Parties agree to submit, for a period of five (5) years from the expiration of this CRADA, and upon request of DOE, a non-proprietary report no more frequently than annually on the efforts to utilize any Intellectual Property arising under the CRADA.

Use of the name of a Party or its employees in any promotional activity, with reference to this CRADA, requires written approval of the other Party.

ARTICLE XI: FORCE MAJEURE

Neither Party will be liable for unforeseeable events beyond its reasonable control.

ARTICLE XII: DISPUTES

The Parties shall attempt to jointly resolve all disputes arising from this CRADA. In the event a dispute arises under this CRADA, the Participant is encouraged to contact Contractor's Technology Partnership Ombudsman in order to further resolve such dispute before pursuing third- party mediation or other remedies. If the Parties are unable to jointly resolve a dispute within a reasonable period of time, they agree to submit the dispute to a third-party mediation process that is mutually agreed upon by the Parties. To the extent that there is no applicable U.S. Federal law, this CRADA and performance thereunder shall be governed by the laws of the State Tennessee without reference to that state's conflict of laws provisions.

ARTICLE XIII: ENTIRE CRADA, MODIFICATIONS, ADMINISTRATION AND TERMINISTRON

This CRADA with its appendices contains the entire agreement between the Parties in performing the research described in the Statement of Work (Appendix A) and becomes effective on the later date of either the date the last Party signs the document or receipt of advance funding, if any. Any agreement to materially change any terms or conditions of the CRADA and appendices shall be valid only if the change is made in writing, executed by the Parties, and approved by DOE.

This CRADA may be terminated by either Party with sixty (60) days' written notice to the other Party. If Article II provides for advance funding, this CRADA may also be terminated by the Contractor in the event of failure by the Participant to provide the necessary advance funding. Each Party will be responsible for its own costs arising out of or as a result of this termination. The obligations of any clause of this CRADA that were intended to survive the expiration of the period of performance, for example, confidentiality, use and/or non-disclosure obligations, shall also survive any termination of this CRADA.

For PARTICIPANT

For CONTRACTOR

Signature	Signature
Participant Signatory's Name	Michael J. Paulus
Name	Name
Participant Signatory's Title	Director, Technology Transfer
Title	Title
Dat	Dat

Appendix A Statement of Work for

CRADA No. NFE-1X-0XXXX

with

Participan

t for

Title of CRADA

[GENERAL NOTE: BE SURE TO REFER TO UT-BATTELLE AND/OR OAK RIDGE NATIONAL LABORATORY AS "CONTRACTOR," AND TO THE COLLABORATING PARTNER AS "PARTICIPANT," THROUGHOUT THIS DOCUMENT (ANYWHERE BELOW THIS POINT IN THE DOCUMENT).]

Purpose and Background

[State the purpose of the CRADA.

Provide background information, such as the nature of the problem, results of previous studies, if any. Describe the expected goals or accomplishments and benefits of the project. Provide a statement of the desired results/products.]

Scope of Work

[Describe the technical objective(s) of the CRADA. Break down the work by tasks Under each task:

- Describe the objective for the task;
- Define the task responsibilities for each Party (CRADAs must be collaborative, and therefore the Statement of Work needs to clearly demonstrate the collaborative nature of the project and there must be task participation shown for each Party); and
- List the completion date (by Project Month—number of months after the effective date of the CRADA) for each task.
- The last task should be shown as completion of a CRADA Final Report]

Task 1

Task 2

Task 3

Task 4

Task

5 Etc.

Property Considerations

The following tangible property will be exchanged: [Is any property changing hands? Either list property to be exchanged or state "None."] The disposition of this property shall be in accordance with CRADA Article III: PERSONAL PROPERTY.

Estimated Cost and Source of Support

The contributions by each Party are specified in CRADA Article II, Paragraph C. The flow of funds is summarized below for each Project Year (PY), inclusive of any applicable Federal Administrative Charges (FAC)*.

Parties	PY 1	PY 2	PV3	PY 4	PY 5	Total
DOE's						
Contribution via						
Contractor:	\$	\$	\$	\$	\$	\$
Participant						
Funds-In:	\$	\$	\$	\$	\$	\$
In-Kind:	\$	\$	\$	\$	\$	\$
Totals:	\$	\$	\$	\$	\$	\$

^{*}FAC is mandated by Section 3137 of the Strom Thurmond National Defense Authorization Act of 1999 (Public Law 105-261), does not apply if there are no funds-in from Participant(s).

Deliverables

In addition to the minimum deliverables shown in Article X of the CRADA, the following will be delivered: [List any additional milestones or deliverables and the Project Month in which each milestone or deliverable is due.]

Schedule

The duration of this project is [State the period of performance in months or years, i.e., 6 months or 2 years. As a reminder, projects tend to start slowly especially since there are multiple approvals and notifications that must occur, and accounts have to be opened, before work starts. In addition, all work including the final report must be completed within the period of performance. Please factor in these items when developing your schedule and include review time of the report by the partner. Any project management projections (Gantt charts, etc.) may be included in this section, if desired.]

Appendix A A-

Program Management

The principal investigators for this CRADA are ORNL Principal Investigator (Contractor) and Participant Principal Investigator (Participant). [State here any plans or requirements for program management or reporting to keep the project on track, such as periodic meetings between the PIs, monthly, quarterly, yearly, etc. reports, and the like.]



Appendix A A-

Appendix B

BACKGROUND INTELLECTUAL PROPERTY

The Contractor has identified the following Background Intellectual Property, which may be used in its performance of work under this CRADA and may be needed to practice the results of this CRADA:

[List BIP here, including name of invention/copyright, internal ID number, status of intellectual property protection, etc., or state "None."]

The Contractor has used reasonable efforts to list all relevant Background Intellectual Property, but Intellectual Property may exist that is not identified. The Contractor shall not be liable to the Participant because of failure to list Background Intellectual Participant



APPENDIX D – WORK WITH SNL: CRADA

Single Laboratory Single Participant

STEVENSON-WYDLER (15 U.S.C. 3710a) COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT (hereinafter "CRADA") No._____

Between

National Technology & Engineering Solutions of Sandia, LLC (a wholly owned subsidiary of Honeywell International, Inc.)
As Operator of Sandia National Laboratories under its U.S. Department of Energy Contract
No. DE-NA0003525
(hereinafter "Contractor" or "NTESS")

And

both being hereinafter jointly referred to as the "Parties" or individually as a "Party".

ARTICLE I: DEFINITIONS

- A. "Background Intellectual Property" means the Intellectual Property identified by the Parties in Annex B, Background Intellectual Property, which was in existence prior to or is first produced outside of this CRADA, except that in the case of inventions in those identified items, the inventions must have been conceived outside of this CRADA and not first actually reduced to practice under this CRADA to qualify as Background Intellectual Property.
- B. "Computer Software" means (i) computer programs that comprise a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations; and (ii) recorded information comprising source code listings, design details, algorithms, processes, flow charts, formulas, and related material that would enable the computer program to be produced, created, or compiled.
- C. "Contracting Officer" means the DOE employee administering the Contractor's DOE contract.
- D. "DOE" means the Department of Energy, an agency of the Federal Government.
- E. "Generated Information" means information including data, produced in the performance of this CRADA.
- F. "Government" means the Federal Government of the United States of America and agencies thereof.
- G. "Intellectual Property" means patents, trademarks, copyrights, mask works, Protected CRADA Information, and other forms of comparable property rights protected by Federal law and foreign counterparts, except trade secrets.
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- H. "Proprietary Information" means information, including data, which is developed at private expense outside of this CRADA, is marked as Proprietary Information, and embodies (i) trade secrets or (ii) commercial or financial information which is privileged or confidential under the Freedom of Information Act (5 U.S.C. 552(b)(4)).
- I. "Protected CRADA Information" means Generated Information which is marked as being Protected CRADA Information by a Party to this CRADA and which would have been Proprietary Information had it been obtained from a non-Federal entity.
- J. "Subject Invention" means any invention of a Party conceived or first actually reduced to practice in the performance of work under this CRADA.
- K. "Contractor" means [include relevant HydroGen lab members and their respective information].under its U. S. Department of Energy Contract No.

ARTICLE II: STATEMENT OF WORK, TERM, FUNDING AND COSTS

- A. Annex A, The Statement of Work is an integral part of this CRADA.
- B. Notices: The names, postal addresses, telephone and email addresses for the Parties are provided in the Statement of Work. Any communications required by this CRADA, if given by postage prepaid first class U.S. Mail or other verifiable means addressed to the Party to receive the communication, shall be deemed made as of the day of receipt of such communication by the addressee, or on the date given if by email. Address changes shall be made by written notice and shall be effective thereafter. All such communications, to be considered effective, shall include the number of this CRADA.
- C. The effective date of this CRADA shall be the latter date of (1) the date on which it is signed by the last of the Parties, (2) the date on which it is approved by DOE, or (3) the date on which the advance funding referred to in this Article is received by the Contractors. The work to be performed under this CRADA shall be completed within _____ months/years from the effective date.
- D. The Participant's estimated contribution is \$_____, which includes \$____ funds-in. The Government's total estimated contribution, which is provided through the Contractor's contract with DOE, is \$____, subject to available funding, An estimated breakdown of costs is set forth in Annex A, Statement of Work. For CRADAs which include funding on a funds-in basis, Participant shall provide the Contractors, prior to any work from being performed by the Contractors, a budgetary resource sufficient to cover the anticipated work that will be performed during the first billing cycle. In addition, the Participant shall provide sixty (60) days of additional funding to ensure that funds remain available for project during subsequent billing cycles. No work will begin before the receipt of a cash advance. Failure of Participant to provide the necessary advance funding is cause for termination of the CRADA in accordance with the Termination article of the CRADA. A billing cycle is the period of time between billings, usually thirty (30) days. The billing cycle is complete when the customer is billed for services rendered.
- E. No Party shall have an obligation to continue or complete performance of its work at a contribution in excess of its estimated contribution as contained in Article II.D., above, including any subsequent amendment.

ARTICLE III: PERSONAL PROPERTY

All tangible personal property produced or acquired under this CRADA (specifically excluding Intellectual Property rights, Background Intellectual Property, and Proprietary Information) shall become the property of the Participant or the Government, depending upon whose funds were used to obtain it. Personal property shall be disposed of as directed by the owner at the owner's expense. There shall not be any jointly funded property under this CRADA except by the mutual agreement of the Parties. The Participant shall maintain records of receipts, expenditures, and the disposition of all Government property in its custody related to the CRADA.

ARTICLE IV: DISCLAIMER

THE GOVERNMENT, THE PARTICIPANT, AND THE CONTRACTOR MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO THE CONDITIONS OF THE RESEARCH OR ANY INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA, OR THE OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THE RESEARCH OR RESULTING PRODUCT. ALL WORK PERFORMED HEREUNDER BY EITHER PARTY IS PROVIDED "AS-IS" WITH ALL FAULTS, ERRORS AND OMISSIONS. NEITHER THE GOVERNMENT, THE PARTICIPANT, NOR THE CONTRACTOR SHALL BE LIABLE FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ATTRIBUTED TO SUCH RESEARCH OR RESULTING PRODUCT, INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA.

ARTICLE V: PRODUCT LIABILITY

Except for any liability resulting from any negligent acts, willful misconduct or omissions of the Contractor or the Government, the Participant indemnifies 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 Participant, its assignees, or licensees, which was derived from the work performed under this CRADA. In respect to this article, neither the Government nor the Contractor shall be considered assignees or licensees of the Participant, as a result of reserved Government and Contractor rights. The indemnity set forth in this paragraph shall apply only if the Participant 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 Participant. No settlement for which the Participant would be responsible shall be made without the Participant's consent unless required by final decree of a court of competent jurisdiction.

ARTICLE VI: RIGHTS IN SUBJECT INVENTIONS

Wherein DOE has granted the Participant and the Contractor the right to elect to retain title to their respective Subject Inventions, and wherein the Participant has the option to choose an exclusive

license, for reasonable compensation, for a pre-negotiated field of use to the Contractor's Subject Inventions.

- A. Each Party shall have the first option to elect to retain title to any of its Subject Inventions and that election shall be made:
 - (1) for the Participant, within 12 months of disclosure of the Subject Invention to DOE or
 - (2) for the Contractor, within the time period specified in its prime contract for electing to retain title to Subject Inventions.

However, such election shall occur not later than 60 days prior to the time when any statutory bar might foreclose filing of a U.S. Patent application. The electing Party has one year to file a patent application after such election unless any statutory bar exists. If a Party elects not to retain title to any of its Subject Inventions or fails to timely file a patent application, the other Party shall have the second option to elect to obtain such title. The other Party shall have the second option to elect to obtain title to such Subject Invention within one year of notification and file a patent application within one year after such election and no less than 30 days prior to a statutory bar, if any. For Subject Inventions that are joint Subject Inventions of the Contractor and the Participant, title to such Subject Inventions shall be jointly owned by the Contractor and the Participant.

- B. The Parties agree to assign to DOE, as requested by DOE, the entire right, title and interest in any country to each Subject Invention where the Parties
 - (1) do not elect pursuant to this article to retain/obtain such rights, or
 - (2) elect to retain/obtain title to a Subject Invention but fail to have a patent application filed in that country on the Subject Invention or decide not to continue prosecution or not to pay any maintenance fees covering the Subject Invention.

If DOE is granted a patent on Participant's Subject Invention, the Participant may request a non-exclusive license and DOE will determine whether to grant such license pursuant to statutory authority.

- C. The Parties acknowledge that the Government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States every Subject Invention under this CRADA throughout the world. The Parties agree to execute a Confirmatory License to affirm the Government's retained license.
- D. The Parties agree to disclose to each other each Subject Invention which may be patentable or otherwise protectable under U.S. patent law. The Parties agree that the Contractor and the Participant will disclose their respective Subject Inventions to DOE and each other within two (2) months after the inventor first discloses the Subject Invention in writing to the person(s) responsible for patent matters of the disclosing Party.

These disclosures should be in sufficiently complete technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, and operation of the Subject Invention. The disclosure shall also identify any known actual or potential statutory bars, e.g., printed publications describing the Subject Invention or the public use or "on sale" of the Subject Invention. The Parties further agree to disclose to each other any subsequently known actual or potential statutory bar that occurs for a Subject Invention disclosed but for which a patent application has not been filed. All Subject Invention disclosures shall be marked as confidential under 35 U.S.C. 205.

- E. The Parties agree to include within the beginning of the specification of any U.S. patent applications and any patent issuing thereon (including non-U.S. patents) covering a Subject Invention, the following statement: "This invention was made under a CRADA (identify CRADA number) between
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- (name the Participant) and (name the laboratory) operated for the United States Department of Energy. The Government has certain rights in this invention."
- F. The Parties acknowledge that DOE has certain march-in rights to any Subject Inventions in accordance with 48 CFR 27.304-1(g) and 15 U.S.C. 3710a(b)(1)(B) and (C).
- G. The Participant agrees to submit, for a period of five (5) years from the date of termination or completion of this CRADA and upon the request of DOE, a nonproprietary report no more frequently than annually on efforts to utilize any Intellectual Property arising under the CRADA including information regarding compliance with the U.S. Competitiveness provision of this CRADA.
- H. For a period of 6 months after a Contractor Subject Invention is disclosed to the Participant, the Participant shall have the opportunity, pursuant to 15 U.S.C. 3710a, to obtain a license to Contractor's Subject Inventions. In particular, the Participant shall have the option to obtain, up to and including, an exclusive license to Contractor's Subject Inventions within a defined field of use on agreed-upon reasonable terms and conditions, including the payment of negotiated license fees and royalties.
- I. Each Party may use the other Party's Background Intellectual Property identified in Annex C of this CRADA solely in performance of the Statement of Work. This CRADA does not grant to either Party any option, grant, or license to commercialize, or otherwise use the other Party's Background Intellectual Property. Licensing of Background Intellectual Property, if agreed to by the Parties, shall be the subject of the separate licensing agreements between the Parties. Each Party has used reasonable efforts to list all relevant Background Intellectual Property, but Background Intellectual Property may exist that is not identified. Neither Party shall be liable to the other Party because of failure to list Background Intellectual Property.

ARTICLE VII: RIGHTS IN DATA

- A. The Parties agree that they shall have no obligations of nondisclosure or limitations on their use of, and the Government shall have unlimited rights in, all Generated Information produced and information provided by the Parties under this CRADA, except for restrictions on data provided for in this Article or data disclosed in a Subject Invention disclosure being considered for Patent protection.
- B. <u>PROPRIETARY INFORMATION</u>: Each Party agrees to not disclose Proprietary Information provided by the other Party to anyone other than the CRADA Participant, Contractor, and their respective subcontractors, agents, and consultants, (if any) authorized to perform work under this CRADA without written approval of the providing Party, except to Government employees who are subject to the statutory provisions against disclosure of confidential information set forth in the Trade Secrets Act (18 U.S.C. 1905). Government employees shall not be required to sign non-disclosure agreements due to the provisions of the above-cited statute.
 - If Proprietary Information is orally disclosed to a Party, it shall be identified as such, orally, at the time of disclosure and confirmed in a written summary thereof, appropriately marked by the disclosing Party, within thirty (30) days as being Proprietary Information. All Proprietary Information shall be protected by the recipient for a period of five (5) years from the effective date of this CRADA, unless such Proprietary Information becomes publicly known without the fault of the recipient, shall come into recipient's possession without breach by the recipient of any of the obligations set forth herein, can be demonstrated by the recipient by written record that it is known prior to receipt from disclosing party, is disclosed by operation of law, or is independently developed by recipient's employees who did not have access to such Proprietary Information.

Upon request, Proprietary Information in tangible form shall be returned to the disclosing Party at the disclosing Party's expense or destroyed with a certificate of destruction submitted to the disclosing Party upon termination or expiration of this CRADA, or during the term of this CRADA upon request by the disclosing Party. Notwithstanding the foregoing, destruction of copies shall not extend to archival copies maintained in computer system backup files, permanent business records, or as may otherwise be required by receiving Party's internal document retention policies.

C. <u>PROTECTED CRADA INFORMATION</u>: Except where a Participant's Federal funding agreement prohibits such protection, each Party may designate and mark as Protected CRADA Information any Generated Information produced by its employees, which meets the definition in Article I and, with the agreement of the other Party, so designate any Generated Information produced by the other Party's employees which meets the definition in Article I. All such designated Protected CRADA Information shall be appropriately marked.

For a period of five (5) years from the date Protected CRADA Information is produced, the Parties agree not to further disclose such information and to use the same degree of care and discretion, but no less than reasonable care and discretion, to avoid disclosure, publication or dissemination of such information to a third party, as the Party employs for similar protection of its own information which it does not desire to disclose, publish, or disseminate except:

- (1) as necessary to perform this CRADA;
- (2) as published in a patent application or an issued patent before the protection period expires;
- (3) as provided in Article X [REPORTS AND PUBLICATIONS];
- (4) as requested by the DOE Contracting Officer to be provided to other DOE facilities for use only at those DOE facilities solely for Government use only with the same protection in place and marked accordingly.
- (5) when a specific maximum time period for delaying the public release of data is authorized in the terms of a Government funding agreement used to fund this CRADA and that maximum period is shorter than the time period set forth in this Article for protecting Protected CRADA Information:
- (6) to existing or potential licensees, affiliates, customers, or suppliers of the Parties in support of the commercialization of the technology with the same protection in place. Disclosure of the Participant's Protected CRADA Information under this subparagraph shall only be done with the Participant's consent; or
- (7) as mutually agreed to by the Parties in advance.

The obligations of this paragraph shall end sooner for any Protected CRADA Information which shall become publicly known without fault of either Party, shall come into a Party's possession without breach by that Party of the obligations of paragraph above, or shall be independently developed by a Party's employees who did not have access to the Protected CRADA Information. Federal Government employees who are subject to 18 USC 1905 may have access to Protected CRADA Information and shall not be required to sign non-disclosure agreements due to the provisions of the statute.

- D. <u>COPYRIGHT</u>: The Parties may assert Copyright in any of their respective Generated Information. Assertion of Copyright generally means to enforce or give an indication of an intent or right to enforce such as by marking or securing Federal registration. Copyrights in co-authored works by employees of the Parties shall be held jointly, and use by either Party shall be without accounting.
- E. <u>COMPUTER SOFTWARE</u>: For all Computer Software produced in the performance of this CRADA, the Parties shall provide an Announcement Notice, AN 241.4 Software Announcement Notice, along with providing the source code, the executable object code and the minimum support documentation needed by a competent user to understand and use the Computer Software to DOE's Energy Science and Technology Software Center (ESTSC) via www.osti.gov/estsc. The source code of the Computer Software may be marked as Protected CRADA Information in

accordance with this Article; however, the Government's use of the executable object code is governed by the applicable license below.

For Generated Information that is Copyrighted Computer Software produced by a Party, the Party shall inform DOE's ESTSC when it abandons or no longer commercializes the Copyrighted Computer Software. Until such notice to ESTSC, the Government has for itself and others acting on its behalf, a royalty-free, nontransferable, nonexclusive, irrevocable worldwide copyright license to reproduce, prepare derivative works, and perform publicly and display publicly, by or on behalf of the Government. (narrow license) After the Party owning the Copyrighted Computer Software abandons or no longer commercializes the Copyrighted Computer Software, the Government has for itself and others acting on its behalf, a royalty-free, nontransferable, nonexclusive, irrevocable worldwide copyright license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. (broad license)

For all other Generated Information where a Party asserts copyright in copyrightable works produced in the performance of this CRADA, the Government has for itself and others acting on its behalf, a royalty-free, nontransferable, nonexclusive, irrevocable worldwide copyright license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government, subject to the restrictions this Article places on publication of Proprietary Information and Protected CRADA Information.

The Parties agree to place Copyright and other notices, as appropriate for the protection of Copyright, in human-readable form onto all physical media, and in digitally encoded form in the header of machine-readable information recorded on such media such that the notice will appear in human-readable form when the digital data are off loaded or the data are accessed for display or printout.

F. The Parties agree that Contractor may utilize one or more agents, consultants or subcontractors to perform work under this Agreement, provided (1) that the use of such agents, consultants or subcontractor(s) does not interfere with the rights and obligations of Contractor under this Agreement and (2) that such agents, consultants or subcontractor(s) agree to comply with the non-use and non-disclosure provisions of this Agreement.

ARTICLE VIII: U.S. COMPETITIVENESS

The Parties agree that a purpose of this CRADA is to provide substantial benefit to the U.S. economy.

- A. In exchange for the benefits received under this CRADA, the Participant therefore agrees to the following:
 - (1) Products embodying Intellectual Property developed under this CRADA shall be substantially manufactured in the United States, and
 - (2) Processes, services, and improvements thereof which are covered by Intellectual Property developed under this CRADA shall be incorporated into the Participant's manufacturing facilities in the United States either prior to or simultaneously with implementation outside the United States. Such processes, services and improvements, when implemented outside the United States, shall not result in reduction of the use of the same processes, services or improvements in the United States.
- B. The Contractor agrees to a U.S. Industrial Competitiveness clause in accordance with its prime contract with respect to any licensing and assignments of its Intellectual Property arising from this CRADA, except that any licensing or assignment of its intellectual property rights to the Participant shall be in accordance with the terms of paragraph A of this Article.
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C. If the Participant later finds that it cannot meet the requirements of Paragraph A above, the Participant will submit a plan for providing net benefit to the US economy to DOE. If such plan is approved by DOE, it shall be incorporated into this CRADA by an amendment to be executed by the Parties. If the CRADA is completed or terminated and DOE approves of the plan, the DOE Contracting Officer shall issue an approval letter.

ARTICLE IX: EXPORT CONTROL

THE PARTIES UNDERSTAND THAT MATERIALS AND INFORMATION RESULTING FROM THE PERFORMANCE OF THIS CRADA MAY BE SUBJECT TO EXPORT CONTROL LAWS AND THAT EACH PARTY IS RESPONSIBLE FOR ITS OWN COMPLIANCE WITH SUCH LAWS. EXPORT LICENSES OR OTHER AUTHORIZATIONS FROM THE U.S. GOVERNMENT MAY BE REQUIRED FOR THE EXPORT OF GOODS, TECHNICAL DATA OR SERVICES UNDER THIS AGREEMENT. THE PARTIES ACKNOWLEDGE THAT EXPORT CONTROL REQUIREMENTS MAY CHANGE AND THAT THE EXPORT OF GOODS, TECHNICAL DATA OR SERVICES FROM THE U.S. WITHOUT AN EXPORT LICENSE OR OTHER APPROPRIATE GOVERNMENTAL AUTHORIZATION MAY RESULT IN CRIMINAL LIABILITY.

ARTICLE X: REPORTS AND PUBLICATIONS

- A. The Parties agree to produce the following deliverables to DOE Office of Scientific and Technical Information (OSTI):
 - (1) an initial abstract suitable for public release at the time the CRADA is executed;
 - (2) a final report, upon completion or termination of this CRADA, to include a list of Subject Inventions: and
 - (3) other scientific and technical information in any format or medium that is produced as a result of this CRADA that is useful to the Government or the public as specified by and upon request from DOE no later than two years from submission of the final report to OSTI.

The Parties acknowledge that the Contractor has the responsibility to timely provide the above information to OSTI. Furthermore, item (2) above should also be provided to the DOE field office.

- B. The Parties agree to secure pre-publication review from each other wherein the non-publishing Party shall provide within 30 days any written objections to be considered by the publishing Party.
- C. The Parties agree that neither will use the name of the other Party or its employees in any promotional activity, such as advertisements, with reference to any product or service resulting from this CRADA, without prior written approval of the other Party.

ARTICLE XI: FORCE MAJEURE

No failure or omission by the Contractor or the Participant in the performance of any obligation under this CRADA shall be deemed a breach of this CRADA or create any liability if the same shall arise from any cause or causes beyond the control of the Contractor or the Participant, including but not limited to the following, which, for the purpose of this CRADA, shall be regarded as beyond the control of the Party in question: Acts of God, acts or omissions of any government or agency thereof, compliance with

requirements, rules, regulations, or orders of any governmental authority or any office, department, agency, or instrumentality thereof, fire, storm, flood, earthquake, accident, acts of the public enemy, war, rebellion, insurrection, riot, sabotage, invasion, quarantine, restriction, transportation embargoes, or failures or delays in transportation.

ARTICLE XII: DISPUTES

The Parties shall attempt to jointly resolve all disputes arising from this CRADA. In the event a dispute arises under this CRADA, the Participant is encouraged to contact the Contractor's Technology Partnerships Ombudsman in order to further resolve such dispute before pursuing third-party mediation or other remedies. If the Parties are unable to jointly resolve a dispute within 60 days, they agree to submit the dispute to a third-party mediation process that is mutually agreed upon by the Parties. To the extent that there is no applicable U.S. Federal law, this CRADA and performance thereunder shall be governed by the state laws of the locale of a court of competent jurisdiction, without reference to that state's conflict of laws provisions.

ARTICLE XIII: ENTIRE CRADA, MODIFICATIONS, ADMINISTRATION TERMINATION, AND NO EXCLUSIVITY

- A. This CRADA with its annexes contains the entire agreement between the Parties with respect to the Statement of Work.
- B. Any agreement to materially change any terms or conditions of this CRADA or the annexes shall be valid only if the change is made in writing, executed by the Parties hereto, and approved by DOE.
- C. The Contractor enters into this CRADA under the authority of its prime contract with DOE. The Contractor is authorized to and will administer this CRADA in all respects unless otherwise specifically provided for herein. Administration of this CRADA may be transferred from the Contractor to DOE or its designee with notice of such transfer to the Participant, and the Contractor shall have no further responsibilities except for the confidentiality, use and/or nondisclosure obligations of this CRADA.
- D. This CRADA may be terminated by either Party upon thirty (30) days written notice to the other Party. If Article II provides for advance funding, the Contractor may also terminate its participation in this CRADA in the event of failure by the Participant to provide the necessary advance funding. In the event of termination by either Party, each Party shall be responsible for its share of the costs incurred through the effective date of termination, as well as its share of the costs incurred after the effective date of termination, and which are related to the termination.

The confidentiality, use, and/or non-disclosure obligations of this CRADA shall survive any termination of this CRADA, as well as provisions of this CRADA which would naturally survive termination or expiration of this CRADA.

E. Subject to the provisions contained herein, this CRADA shall not restrict a Party to this CRADA from discussing or performing similar work with a third party.

FOR NTESS	:
BY	
TITLE	
DATE	
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FOR PARTI	CIPANT:		
ВҮ			
TITLE			
DATE			

ANNEX A

STATEMENT OF WORK

A. NON-PROPRIETARY ABSTRACT

(Please provide a brief non-proprietary, non-sensitive description of work to be performed under this CRADA for reporting to OSTI. This should not exceed 800 characters)

B. PURPOSE

(A one or two sentence statement of project purpose.)

Reasons for Cooperation:

(Briefly describe each party's interests and strengths and how they are complementary with respect to developing the CRADA technology.)

C. SCOPE OF WORK

Technical Objective:

(Describe the technical goals of the project.)

Phases/Tasks of the Project, Duration, and Responsible Parties:

(Describe the phases/tasks of the project, if appropriate. Identify the individual tasks within each phase (if applicable) in table format. Subtasks may also be included. Subtasks should provide enough detail so that progress can be easily tracked. (See suggested table layout below.) The duration and responsible party for each task/subtask should be listed. In the section following the table, provide a discussion of the objective of the task and the deliverable that will be produced as a result of the task.)

Phas eNo.	Task No.	Task Name	Duration (Start)	(Months) (Finish)	Responsible Party

Task De	scriptio	ons ar	d Deli	verab	les:				
Task 1:									
Discussi Contract Participa	or Delive								
Task 2:									
Discussi Contract Participa	or Delive								
Task 3:									

Discussion: Contractor Deliverables: Participant Deliverables:
Task 4:
Discussion: Contractor Deliverables: Participant Deliverables:
Task 5:
Discussion: Contractor Deliverables: Participant Deliverables:
Final Deliverable from both Parties is a report addressing objectives and deliverables. Contractor will deliver report to OSTI.
Duration of Entire Project: (Express, in months, the proposed length of the project from start to finish.)
D. PROPERTY (Can be excluded if no tangible property is expected to be produced or purchased.) List any tangible property to be produced or purchased, who will pay for it and who will own it as required under Article III of the CRADA.
Contractor:
Participant:
Note: If any materials or equipment will be transferred out from Contractor(s) to the Participant, a list of all equipment, identify piece, and identifying numbers (serial, etc.) must be identified in the Statement of Work. Contractor Property Management needs to be notified with a copy of the Statement of Work.
Any questions concerning the government property provided, acquired, or used in the performance of this CRADA should be addressed to the following e-mail address and/or telephone number: ["N/A" or remove section if no property being loaned.] addition, the Property Representative is authorized to take any action necessary to comply with the Federal Property Management Regulations, DOE Property Management Regulations, the Contractor Property Management Manual and the terms of the CRADA regarding the appropriate acquisition, use, loss, replacement, transfer or return of government-furnished property/CRADA-acquired property.
E. TERM, FUNDING AND COSTS
The Participant's estimated contribution is \$ The Government's estimated contribution, which is provided through the Contractor's prime contract with DOE, is \$, subject to available funding. The total value of this CRADA is estimated to be \$

F. FUNDING TABLE (all \$ in K)

Base CRADA

Funding	Project	Project	Project	Project	Project	
	Year 1	Year 2	Year 3	Year 4	Year 5	TOTALS
Government In-Kind						
Participant						
In-Kind						
Funds-In (incl. FAC)						
Total Participant						
TOTAL CRADA						
Value						

OFFICIAL AND TECHNICAL POINT OF CONTACT(S):

Participant Official POC:
Name:
Address:
Telephone:
Wk:
Cell:
E-mail:
Contractor Official POC:
Name:

Address: Telephone: Wk: Cell: E-mail:

Participant Technical POC:

Name: Address: Telephone: Wk: Cell: E-mail:

Contractor Technical POC:

Name: Address: Telephone: Ŵk: Cell: E-mail:

ANNEX B **BACKGROUND INTELLECTUAL PROPERTY (BIP)**

This CRADA does not grant to either Party any option, grant, or license to commercialize, or otherwise use the other Party's Background Intellectual Property, Licensing of Background Intellectual Property, if agreed to by the Parties, shall be the subject of the separate licensing agreements between the Parties. Each Party has used reasonable efforts to list all relevant Background Intellectual Property, but Background Intellectual Property may exist that is not identified. Neither Party shall be liable to the other Party because of failure to list Background Intellectual Property.

Relevant BIP to this CRADA includes but is not limited to the following listing, is subject to change, and includes Intellectual Property developed or owned by the Contractor and Intellectual Property developed or owned by the CRADA Participant. CRADA Participants are cautioned that rights to the BIP may be limited by existing encumbrances.

LABORATORY:

LAB's final BIP review from the IPM/BIP Team is entered here, or "None Expected".

In accordance with 35 U.S.C. § 205, the technology and information contained in, or covered by, any above listed unpublished Contractor patent applications, Innovation Reports and ROIs comprise Protected Information. Protected Information means information generated by the Contractor under its DOE Contract, which is marked as its Protected Information and defined in 15 U.S.C. § 3710a(c)(7)(B) to be "a trade secret or would comprise commercial or financial information that is privileged or confidential if it were obtained from a non-Federal party". Contractor Protected Information may also include, by way of example and not limitation, technical data, computer software, drawings, photographs, process information, samples, equipment, specifications, microorganisms and the like.

The Participant agrees to maintain Protected Information as confidential and to use Protected Information only at the Participant's organization in connection with the performance of the Statement of Work.

Upon termination of this Agreement, the Participant agrees to promptly discontinue its use of the above listed Protected Information, and will, at the Contractor's request, return or destroy all remaining Protected Information. In the event a Contractor terminates its participation in this Agreement pursuant to Article XIII of the CRADA herein, the Participant's right to that Contractor's Protected Information listed in this Appendix B will automatically terminate.

PARTICIPANT:

If the CRADA Participant wishes to identify any BIP it should be listed here, or "None Expected".

APPENDIX E – WORK WITH NREL: PARTICIPANT DATA SHEET

NREL is a U.S. Department of Energy owned laboratory. The information given below is for informational purposes only.

1.0 P	OINTS OF CONTACT. IC	lentify specific points of contact	(POCs) within you	ır company.			
Comp	pany name:						
Tech	nical POC. Please identi	fy the technical POC within your	company with wh	nom NREL's technical staff will work.			
Name):						
Busir	ness address:			Email:			
City:		State:		Country:			
Zip/p	ostal code:	Phone:		Fax:			
	_	ent is likely to involve the negotia lentify the POC within your com		erms and conditions between your otiate these business issues.			
Name	9 :						
Expre	ess mail address:			Email:			
City:		State:		Country:			
Zip/p	ostal code:	Phone:		Fax:			
are in				ne company listed in Section 1.0, who ent or recent ("recent" meaning within			
☐ Re	ourrent Department of E	es? Energy employees?					
For "Current" or "Recent" responses, identify the individual(s) and their associations.							
3.0 B	USINESS CATEGORIZA	ATION. The company identified i	n Section 1.0 is (c	heck all that apply)			
	A small business (less than 500 employees) pursuant to 15 U.S.C. 632(a), Small Business Regulations. Provide the NAICS number if one has been assigned to the company.						
A non-profit organization or business under the Internal Revenue Code Sections 501 or 503							
Other. Describe.							
4.0 COUNTRY INFORMATION. The company listed in Section 1.0 is:							
	A U.Sowned business	☐ A non-U.Sowned business	State of inco	rporation:			
	A U.Scontrolled business						

A multi-national company (i.e., U.Sowned with foreign research and/or manufacturing facilities).								
If this box is checked, does the company have operations in the United States? ☐ Yes								
□ No								
5.0 INTE	5.0 INTELLECTUAL PROPERTY							
☐ Yes ☐ No								
	Name	Country of Citizenship	Green Card Holder?	□ Yes □ No				
	Name	Country of Citizenship	Green Card Holder?	☐ Yes ☐ No				
	Name	Country of Citizenship	Green Card Holder?	☐ Yes ☐ No				
	Name	Country of Citizenship	Green Card Holder?	☐ Yes ☐ No				
6.0 ELIG	BIBILITY							
☐ Yes ☐ No	Is the company listed in Section 1.0 Federal Acquisition Regulation 9.4	-	gible contractor as defined in	the				
7.0 REL	EASE OF INFORMATION							
☐ Yes ☐ No								
☐ Yes ☐ No	Do you agree to allow NREL to identify the value of the agreement in a public forum such as a press release or NREL's Web site?							
☐ Yes ☐ No								
8.0 SIGNATURE. I hereby represent that the above information may be used for purposes of entering into the proposed agreement.								
	Printed Name		Signature					
	Title		Date					

APPENDIX F – WORK WITH NREL: JOINT WORK STATEMENT

Title: [Competitors should use their Geothermal Manufacturing Prize project title]

Abstract of CRADA work: The American-Made Geothermal Manufacturing Prize is a prize competition from the U.S. Department of Energy designed to catalyze manufacturing innovation in the American geothermal industry by harnessing the rapid advances additive manufacturing can provide in improving tool design, fabrication, and functionality. The competition aims to support the growth of U.S. geothermal energy and revitalize American energy innovation by tapping into America's competitive spirit and the nation's unparalleled innovation ecosystem leveraging national labs, incubators, facilities and more. Finalists have been chosen to develop their concepts in advance of the Make! Demo Day anticipated to be held on January 13, 2022. The National Renewable Energy Laboratory (NREL) will provide technical and business advisement to the noted Geothermal Manufacturing Prize finalists in preparation for Demo Day.

Participant Name and Address: To be completed for each partner Name: Address: City, State Zip Code: Phone number: Email: **Participant Type** Small Business [] Large Business [] Schedule The Period of Performance for this effort is. **Purpose** To provide the tools and expertise to help projects succeed and is comprised of an unparalleled geothermal innovation system. These resources will provide technical insight, product validation, and strategic support to teams throughout the competition. Statement of Work **Task Descriptions** The Participant will:

Task 1: The Participant will participate in a monthly check-in with the NREL Principal Investigator. If a check-in meeting is missed two months in a row, the agreement may be cancelled by the American-Made Challenges Geothermal Manufacturing Prize team.

Task 2:

Task 3:

Etc.

NREL will:

Technical and business support provided by NREL to develop finalist concepts in advance of Demo Day events. The technical advisement will include:

Task 1.

Task 2.

Task 3:

Etc.

Task x: The Principal Investigator agrees to provide the following to DOE Office of Scientific and Technical Information (OSTI): (1) an initial abstract suitable for public release at the time the CRADA is executed; (2) a final report, within thirty (30) days upon completion or termination of this CRADA, to include a list of Subject Inventions; and (3) other scientific and technical information in any format or medium that is produced as a result of this CRADA.

Schedule of deliverables and Estimated Completion Dates:

<u>•</u>	
Participant:	Dates:
1.	
2.	
3.	
NREL:	Dates:
1.	
2.	
3.	

Funding Table

Estimated	4.	NREL	5.	Participant	6.	Participant	7.	Totals
Costs	Shared		Shared	l Resources	Func	ls In		
	Resour	ces						
Year 1	\$	00.00	\$	00.00			\$	00.00
TOTALS	\$	00.00	\$	00.00			\$	00.00

APPENDIX G – WORK WITH NREL: CRADA

AMERICAN-MADE CHALLENGES VOUCHER PROGRAM COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT (hereinafter "CRADA") NO.

BETWEEN ______, Operator of _______, Laboratory under its U.S. Department of Energy Contract No. Address City, State ZIP

I. (hereinafter "Contractor") AND

Company Name Address City, State ZIP

II. (hereinafter "Participant")

both being hereinafter jointly referred to as the "Parties."

Task Title:

Field of Use:

ARTICLE I: DEFINITIONS

- A. "Government" means the United States of America and agencies thereof.
- B. "DOE" means the Department of Energy, an agency of the United States of America.
- C. "Contracting Officer" means the DOE employee administering the Contractor's DOE contract.
- D. "Generated Information" means information produced in the performance of this CRADA.
- E. "Proprietary Information" means information which is developed at private expense outside of this CRADA, is marked as Proprietary Information, and embodies (i) trade secrets or (ii) commercial or financial information which is considered privileged or confidential under the Freedom of Information Act (5 USC 552 (b)(4)).
- F. "Protected CRADA Information" means Generated Information which is marked as being Protected CRADA Information by a Party to this CRADA and which would have been Proprietary Information had it been obtained from a non-federal entity.
- G. "Subject Invention" means any invention of the Contractor or Participant conceived of or first actually reduced to practice in the performance of work under this CRADA.
- H. "Intellectual Property" means patents, trademarks, copyrights, mask works, Protected
 CRADA Information and other forms of comparable property rights protected by Federal law
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and other foreign counterparts.

I. "Background Intellectual Property" means the Intellectual Property, if any, identified by the Parties in an Appendix titled "Background Intellectual Property", which was in existence prior to or is first produced outside of this CRADA, except that in the case of inventions in those identified items, the inventions must have been conceived outside of this CRADA and not first actually reduced to practice under this CRADA to qualify as Background Intellectual Property.

III. ARTICLE II: STATEMENT OF WORK, TERM, FUNDING AND COSTS

- A. Annex A is the Statement of Work.
- B. Notices: The names, postal addresses, telephone and email addresses for the Parties are provided in the Statement of Work. Any communications required by this CRADA, if given by postage prepaid first class U.S. Mail or other verifiable means addressed to the Party to receive the communication, shall be deemed made as of the day of receipt of such communication by the addressee, or on the date given if by email. Address changes shall be made by written notice and shall be effective thereafter. All such communications, to be considered effective, shall include the number of this CRADA.
- C. The effective date of this CRADA shall be the latter date of (1) the date on which it is signed by the last of the Parties or (2) the date on which it is approved by DOE. The work to be performed under this CRADA shall be completed within months/years from the effective date.
- D. The Participant's estimated contribution is \$______, which includes \$_____funds-in. The Government's estimated contribution, which is provided through Contractor's contract with DOE, is \$______, subject to available funding.
- E. [Reserve paragraph if Participant is not providing funding to Contractor.] For CRADAs that include (non-Federal) funding on a funds-in basis, the Participant shall provide Contractor, prior to any work from being performed, a budgetary resource sufficient to cover the anticipated work that will be performed during the first billing cycle. In addition, the Participant shall provide sixty (60) days of additional funding to ensure that funds remain available for project during subsequent billing cycles. Failure of Participant to provide the necessary advance funding is cause for termination of this CRADA in accordance with the Termination article of this CRADA. A billing cycle is the period of time between billings, usually thirty (30) days. The billing cycle is complete when the customer is billed for services rendered.

IV. ARTICLE III: PERSONAL PROPERTY

All tangible personal property produced or acquired under this CRADA shall become the property of the Participant or the Government, depending upon whose funds were used to obtain it unless identified in the Statement of Work as being owned by the other Party. Personal property shall be disposed of as directed by the owner at the owner's expense.

All jointly funded property shall be owned by the Government. The Participant shall

maintain records of receipts, expenditures, and the disposition of all Government property in its custody related to the CRADA.

V. ARTICLE IV: DISCLAIMER

THE GOVERNMENT, THE PARTICIPANT, AND THE CONTRACTOR MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO THE CONDITIONS OF THE RESEARCH OR ANY INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA, OR THE OWNERSHIP, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR RESULTING PRODUCT. NEITHER THE GOVERNMENT, THE PARTICIPANT, NOR THE CONTRACTOR SHALL BE LIABLE FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES ATTRIBUTED TO SUCH RESEARCH OR RESULTING PRODUCT, INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA.

VI. ARTICLE V: PRODUCT LIABILITY

Except for any liability resulting from any negligent acts, or willful misconduct or omissions of Contractor or Government, Participant agrees to hold harmless the Government and the Contractor for all damages, cost and expenses, including attorney's fees, arising from personal injury or property damage as a result of the making, using, or selling of a product, process or service by or on behalf of the Participant, its assignees or licensees, which was derived from the work performed under this CRADA.

VII. ARTICLE VI: RIGHTS TO SUBJECT INVENTIONS

Wherein DOE has granted the Participant and the Contractor the right to elect to retain title to their respective Subject Inventions.

- A. Each Party shall have the first option to elect to retain title to any of its Subject Inventions and that election shall be made: (1) for the Participant, within 12 months of disclosure of the Subject Invention to DOE or (2) for the Contractor, within the time period specified in its prime contract for electing to retain title to Subject Inventions. However, such election shall occur not later than 60 days prior to the time when any statutory bar might foreclose filing of a U.S. Patent application. The electing Party has one year to file a patent application after such election unless any statutory bar exists. If a Party elects not to retain title to any of its Subject Inventions or fails to timely file a patent application, the other Party shall have the second option to elect to obtain title to such Subject Invention within the time period specified in paragraph B below. For Subject Inventions that are joint Subject Inventions of the Contractor and the Participant, title to such Subject Inventions shall be jointly owned by the Contractor and the Participant.
- B. The Parties agree to assign to DOE, as requested by DOE, the entire right, title and interest in any country to each Subject Invention where the Parties (1) do not elect pursuant to this article to retain/obtain such rights, or (2) elect to retain/obtain title to a Subject Invention but fail to have a patent application filed in that country on the Subject Invention or decide not to continue prosecution or not to pay any maintenance fees covering the Subject Invention. If

DOE is granted a patent on Participant's Subject Invention, the Participant may request a non-exclusive license and DOE will determine whether to grant such license pursuant to statutory authority.

- C. The Parties acknowledge that the Government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States every Subject Invention under this CRADA throughout the world. The Parties agree to execute a Confirmatory License to affirm the Government's retained license.
- D. The Parties agree to disclose to each other each Subject Invention which may be patentable or otherwise protectable under U.S. patent law. The Parties agree that the Contractor and the Participant will disclose their respective Subject Inventions to DOE and each other within two (2) months after the inventor first discloses the Subject Invention in writing to the person(s) responsible for patent matters of the disclosing Party.

These disclosures should be in sufficiently complete technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, and operation of the Subject Invention. The disclosure shall also identify any known actual or potential statutory bars, e.g., printed publications describing the Subject Invention or the public use or "on sale" of the Subject Invention. The Parties further agree to disclose to each other any subsequently known actual or potential statutory bar that occurs for a Subject Invention disclosed but for which a patent application has not been filed. All Subject Invention disclosures shall be marked as confidential under 35 U.S.C. 205.

- E. The Parties agree to include within the beginning of the specification of any U.S. patent applications and any patent issuing thereon (including non-U.S. patents) covering a Subject Invention, the following statement: "This invention was made under a CRADA (identify CRADA number) between (name the Participant) and (name the laboratory) operated for the United States Department of Energy. The Government has certain rights in this invention."
- F. The Parties acknowledge that DOE has certain march-in rights to any Subject Inventions in accordance with 48 CFR 27.304-1(g) and 15 U.S.C. 3710a(b)(1)(B) and (C).
- G. The Participant shall, at a minimum, retain a paid-up, royalty-free, nonexclusive, non-transferable, license without the right to sublicense, in a limited Field of Use as specified on the first page of this CRADA for any Subject Invention in which the Contractor retains title.

After four (4) years from the end of this CRADA, the Participant license may be revoked or modified by the Contractor to extent necessary to achieve expeditious practical application of the Subject Invention pursuant to an application for an exclusive license by a third party. The Participant license will not be revoked in any field of use or the geographical areas in which the Participant has achieved practical application and continues to make the benefits of the Subject Invention reasonably accessible to the public.

Before revocation or modification of the license, the Contractor will furnish the Participant a written notice of its intention to revoke or modify the license, and the Participant will be allowed thirty (30) days after the notice to show cause why the license should not be revoked or modified. The Participant has the right to appeal to DOE any decision concerning the revocation or modification of its license.

Notwithstanding the license above, the Contractor has sole discretion on whether to exercise any of its rights under this Article including the right to elect to retain title to any of its Subject Inventions and whether and where to pursue patent protection for any of its Subject Inventions.

In addition to the above nonexclusive license, for each Subject Invention of the Contractor, the Participant has the option for six (6) months from the date that the Subject Invention was disclosed to the Participant to choose an exclusive license, for reasonable compensation, in the limited Field of Use as specified on the first page of this CRADA to the Subject Invention.

VIII. ARTICLE VII: RIGHTS IN DATA

- A The Parties agree that they shall have no obligations of nondisclosure or limitations on their use of, and the Government shall have unlimited rights in, all Generated Information produced and information provided by the Parties under this CRADA, except for restrictions and copyright on data provided for in this Article or data disclosed in a Subject Invention disclosure being considered for Patent protection.
- B. <u>PROPRIETARY INFORMATION:</u> Each Party agrees to not disclose Proprietary Information provided by the other Party to anyone other than the Participant, Contractor and its subcontractors (if any) performing work under this CRADA without written approval of the providing Party, except to Government employees who are subject to the statutory provisions against disclosure of confidential information set forth in the Trade Secrets Act (18 U.S.C. 1905). Government employees shall not be required to sign non-disclosure agreements due to the provisions of the above-cited statute.

If Proprietary Information is orally disclosed to a Party, it shall be identified as such, orally, at the time of disclosure and confirmed in a written summary thereof, appropriately marked by the disclosing Party, within ten (10) days as being Proprietary Information.

All Proprietary Information shall be protected for a period of five (5) years from the effective date of this CRADA, unless such Proprietary Information becomes publicly known without the fault of the recipient, shall come into recipient's possession without breach by the recipient of any of the obligations set forth herein, can be demonstrated by the recipient by written record that it is known prior to receipt from disclosing party, is disclosed by operation of law, or is independently developed by recipient's employees who did not have access to such Proprietary Information.

Proprietary Information in tangible form shall be returned to the disclosing Party or

destroyed with a certificate of destruction submitted to the disclosing Party upon termination or expiration of this CRADA, or during the term of this CRADA upon request by the disclosing Party. Notwithstanding the foregoing destruction of copies shall not extend to archival copies maintained in computer system backup files, permanent business records, or as may otherwise be required by receiving Party's internal document retention policies.

C. <u>PROTECTED CRADA INFORMATION:</u> Each Party may designate and mark as Protected CRADA Information any Generated Information produced by its employees, which meets the definition in Article I and, with the agreement of the other Party, so designate any Generated Information produced by the other Party's employees which meets the definition in Article I. All such designated Protected CRADA Information shall be appropriately marked.

For a period of five (5) years from the date Protected CRADA Information is produced, the Parties agree not to further disclose such information and to use the same degree of care and discretion, but no less than reasonable care and discretion, to avoid disclosure, publication or dissemination of such information to a third party, as the Party employs for similar protection of its own information which it does not desire to disclose, publish, or disseminate except:

- (1) as necessary to perform this CRADA;
- (2) as published in a patent application or an issued patent before the protection period expires;
- (3) as provided in Article X [REPORTS AND ABSTRACTS];
- (4) as requested by the DOE Contracting Officer to be provided to other DOE facilities for use only at those DOE facilities solely for Government use only with the same protection in place and marked accordingly.
- (5) to existing or potential licensees, affiliates, customers, or suppliers of the Parties in support of commercialization of the technology with the same protection in place. Disclosure of the Participant's Protected CRADA Information under this subparagraph shall only be done with the Participant's consent; or
- (6) as mutually agreed to by the Parties in advance.

The obligations of this paragraph shall end sooner for any Protected CRADA Information which shall become publicly known without fault of either Party, shall come into a Party's possession without breach by that Party of the obligations of paragraph above, or shall be independently developed by a Party's employees who did not have access to the Protected CRADA Information. Federal Government employees who are subject to 18 USC 1905 may have access to Protected CRADA Information and shall not be required to sign non-disclosure agreements due to the provisions of the statute.

<u>COPYRIGHT:</u> The Parties may assert copyright in any of their respective Generated Information.

The Parties hereby acknowledge that the Government or others acting on its behalf shall retain a nonexclusive, royalty-free, worldwide, irrevocable, non-transferable license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government, all copyrightable works produced in the performance of this CRADA, subject to the restrictions this CRADA places on publication of Proprietary Information and Protected CRADA Information.

When a Party writes computer software produced in the performance of this CRADA, the Party will provide the source code, object code, and expanded abstract, and the minimum support documentation needed by a competent user to understand and use the software to DOE's Energy Science and Technology Software Center (ESTSC) via www.osti.gov/estsc. The Party shall inform ESTSC when it abandons or no longer commercializes the computer software. Until such notice to ESTSC, the Government has for itself and others acting on its behalf, a royalty-free, nontransferable, nonexclusive, irrevocable worldwide copyright license to reproduce, prepare derivative works, and perform publicly and display publicly, by or on behalf of the Government (narrow license) After the Party owning the Computer Software abandons or no longer commercializes the Computer Software, the Government has for itself and others acting on its behalf, a royalty-free, nontransferable, nonexclusive, irrevocable worldwide copyright license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. (broad license)

The Participant shall, at a minimum, retain a paid-up, royalty-free, nonexclusive, non-transferable, license without the right to sublicense, in a limited Field of Use as specified on the first page of this CRADA to reproduce, prepare derivative works, distribute copies to the public, and perform and display publicly any computer software produced in the performance of this CRADA by the Contractor. This license may be revoked or modified under the same conditions and process as the license for Contractor's Subject Inventions in Article VI(G) of this CRADA.

The Parties agree to place Copyright and other notices, as appropriate for the protection of Copyright, in human-readable form onto all physical media, and in digitally encoded form in the header of machine-readable information recorded on such media such that the notice will appear in human-readable form when the digital data are off loaded or the data are accessed for display or printout.

IX. ARTICLE VIII: U.S. COMPETITIVENESS

The Parties agree that a purpose of this CRADA is to provide substantial benefit to the U.S. economy.

- A. In exchange for the benefits received under this CRADA, the Participant therefore agrees to the following:
 - 1. Products embodying Intellectual Property developed under this CRADA shall be

substantially manufactured in the United States, and

- 2. Processes, services, and improvements thereof which are covered by Intellectual Property developed under this CRADA shall be incorporated into the Participant's manufacturing facilities in the United States either prior to or simultaneously with implementation outside the United States. Such processes, services, and improvements, when implemented outside the United States, shall not result in reduction of the use of the same processes, services, or improvements in the United States.
- B. The Contractor agrees to a U.S. Industrial Competitiveness clause in accordance with its prime contract with respect to any licensing and assignments of its Intellectual Property arising from this CRADA, except that any licensing or assignment of its intellectual property rights to the Participant shall be in accordance with the terms of paragraph A of this Article.

X.ARTICLE IX: EXPORT CONTROL

EACH PARTY IS RESPONSIBLE FOR ITS OWN COMPLIANCE WITH EXPORT CONTROL LAWS AND REGULATIONS. EXPORT LICENSES OR OTHER AUTHORIZATIONS FROM THE U.S. GOVERNMENT MAY BE REQUIRED FOR THE EXPORT OF GOODS, TECHNICAL DATA OR SERVICES UNDER THIS AGREEMENT. THE PARTIES ACKNOWLEDGE THAT EXPORT CONTROL REQUIREMENTS MAY CHANGE AND THAT THE EXPORT OF GOODS, TECHNICAL DATA OR SERVICES FROM THE U.S. WITHOUT AN EXPORT LICENSE OR OTHER APPROPRIATE GOVERNMENTAL AUTHORIZATION MAY RESULT IN CRIMINAL LIABILITY.

XI. ARTICLE X: REPORTS AND ABSTRACTS

The Parties agree to produce the following deliverables: an initial abstract suitable for public release; and a final report, to include a list of Subject Inventions. It is understood that the Contractor has the responsibility to provide this information at the time of its completion to the DOE Office of Scientific and Technical Information. The Participant agrees to provide the above information to the Contractor to enable full compliance with this Article.

The Parties agree to submit, for a period of five years from the expiration of this CRADA and, upon request of DOE, a non-proprietary report no more frequently than annually on the efforts to utilize any Intellectual Property arising under the CRADA.

The Parties agree that neither will use the name of the other Party or its employees in any promotional activity, such as advertisements, with reference to any product or service resulting from this CRADA, without prior written approval of the other Party..

XII. ARTICLE XI: FORCE MAJEURE

No failure or omission by the Contractor or the Participant in the performance of any obligation under this CRADA shall be deemed a breach of this CRADA or create any liability if the same shall arise from any cause or causes beyond the control of the Contractor or the Participant, including but not limited to the following, which, for the

purpose of this CRADA, shall be regarded as beyond the control of the Party in question: Acts of God, acts or omissions of any government or agency thereof, compliance with requirements, rules, regulations, or orders of any governmental authority or any office, department, agency, or instrumentality thereof, fire, storm, flood, earthquake, accident, acts of the public enemy, war, rebellion, insurrection, riot, sabotage, invasion, quarantine, restriction, transportation embargoes, or failures or delays intransportation.

XIII. ARTICLE XII: DISPUTES

The Parties shall attempt to jointly resolve all disputes arising from this CRADA. In the event a dispute arises under this CRADA, the Participant is encouraged to contact Contractor's Technology Partnership Ombudsman in order to further resolve such dispute before pursuing third- party mediation or other remedies. If the Parties are unable to jointly resolve a dispute within a reasonable period of time, they agree to submit the dispute to a third-party mediation process that is mutually agreed upon by the Parties. To the extent that there is no applicable U.S. Federal law, this CRADA and performance thereunder shall be governed by the laws of the State of Colorado, without reference to that state's conflict of laws provisions.

XIV. ARTICLE XIII: ENTIRE CRADA, MODIFICATIONS AND TERMINATION

This CRADA with its annexes contains the entire agreement between the Parties in performing the research described in the Statement of Work (Annex A) and becomes effective on the later date of either the date the last Party signs the document or receipt of advance funding, if any. Any agreement to materially change any terms or conditions of the CRADA and annexes shall be valid only if the change is made in writing, executed by the Parties hereto, and approved by DOE.

The Contractor enters into this CRADA under the authority of its prime contract with DOE. The Contractor is authorized to and will administer this CRADA in all respects unless otherwise specifically provided for herein. Administration of this CRADA may be transferred from the Contractor to DOE or its designee with notice of such transfer to the Participant, and the Contractor shall have no further responsibilities except for the confidentiality, use and/or nondisclosure obligations of this CRADA.

This CRADA may be terminated by either Party with thirty (30) days written notice to the other Party. If Article II provides for advance funding, this CRADA may also be terminated by the Contractor in the event of failure by the Participant to provide the necessary advance funding. Each Party will be responsible for its own costs arising out of or as a result of this termination. The obligations of any clause of this CRADA that were intended to survive the expiration of the period of performance, for example, confidentiality, use and/or non-disclosure obligations, shall also survive any termination of this CRADA.

XV. ARTICLE XIV: BACKGROUND INTELLECTUAL PROPERTY

Each Party may use the other Party's Background Intellectual Property identified in an Annex to this CRADA solely in performance of research under the Statement of Work. This CRADA does not grant to either Party any option, grant, or license to commercialize, or otherwise use the other Party's Background Intellectual Property. Licensing of Background Intellectual Property, if agreed to by the Parties, shall be the subject of separate licensing agreements between the Parties. Each Party has used reasonable efforts to list all relevant Background Intellectual Property, but Background Intellectual Property may exist that is not identified. Neither Party shall be liable to the other Party because of failure to list Background Intellectual Property.

FOR CONTRACTOR:	FOR PARTICIPANT:			
BY	BY			
TITLE	TITLE			
DATE	DATE			

APPENDIX H – WORK WITH OTHER NATIONAL LABS: STATEMENT OF WORK

STATEMENT OF WORK "*(Title of the Project)"

NATIONAL LABORATORY:

GEOTHERMAL PRIZE TEAM NAME:

*(Date of the Statement of Work)

1.0 BACKGROUND

This work is to be conducted in support of the American Made Challenges Geothermal Manufacturing Prize. The intent is to connect competitor teams with national laboratories that can help accelerate the development of innovative solutions and products. Teams who have won the Set! and Make! Contests are eligible to utilize vouchers at national laboratories to advance their ideas.

2.0 OBJECTIVE (provide the specific objective)

*

3.0 SCOPE OF WORK (describe the scope of work)

*

4.0 TASKS (high level description of the tasks to be performed)

4.1 *

5.0 REVIEW MEETINGS AND TRAVEL REQUIREMENTS (if required)

*

6.0 DELIVERABLES (describe the agreed upon deliverables)

*

- 7.0 SOLE SOURCE JUSTIFICATION (explain why the lab is uniquely qualified)
- 8.0 BUDGET (provide a high-level budget in support of the work mentioned above)

Note – winning Make! teams can utilize up to \$75K worth of vouchers at a national laboratory. They may also choose to split the funding up to three laboratories or non-laboratory organizations as outlined in the Voucher Prize Acceptance Form (Appendix B). The budget submission must not exceed \$75K for the Make! Contest.

9.0

SCHEDULE (provide a project schedule)