

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES
			1 2
2. AMENDMENT/MODIFICATION NO. 168	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. 10EE002972	5. PROJECT NO. (If applicable)
6. ISSUED BY Idaho Operations U.S. Department of Energy Idaho Operations 1955 Fremont Avenue Idaho Falls ID 83415	CODE 00701	7. ADMINISTERED BY (If other than Item 6) Idaho Operations U.S. Department of Energy Idaho Operations 1955 Fremont Avenue MS 1221 Idaho Falls ID 83415	CODE 00701
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) BATTELLE ENERGY ALLIANCE, LLC Attn: Lisa A. Sehlke P.O. BOX 1625 IDAHO FALLS ID 834150001		(x) 9A. AMENDMENT OF SOLICITATION NO.	
		9B. DATED (SEE ITEM 11)	
		x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC07-05ID14517	
		10B. DATED (SEE ITEM 13) 11/09/2004	
CODE 152020629	FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$6,301,000.00
 RA FIN PLAN # 04 Feb 10

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) IAW DEAR 970.5232-4 "Obligation of Finds"

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Tax ID Number: 68-0588324
 DUNS Number: 152020629
 The purpose of this modification is to obligate funds under RA FIN Plan 10-05 Feb 10 (RA FIN Plan 10-04 was a no cost change). Specific information is found on the attached Continuation and Information Sheets.
 Subj to Retent: N
 FOB: Destination
 Period of Performance: 11/09/2004 to 09/30/2014

Change Item 00001 to read as follows (amount shown is the total amount):
 Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Suzette M. Olson
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED 02/23/2010

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-AC07-05ID14517/168

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NAME OF OFFEROR OR CONTRACTOR
BATTELLE ENERGY ALLIANCE, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
00001	MANAGEMENT AND OPERATIONS OF THE INL Line item value is:\$8,500,000,000.00 Incrementally Funded Amount: \$4,495,387,598.66				8,500,000,000.00

A. This modification is issued to obligate American Recovery and Reinvestment Act (Recovery Act) of 2009 funds for The Idaho National Laboratory to purchase capital equipment for the High Energy Battery Test Facility; To conduct experiments for evaluating the effect of supercritical carbon dioxide, at elevated temperatures, on precipitation and dissolution of mineral phases that are typical of geomeia found in geothermal reservoirs; To develop a physics-based rock deformation and fracture propagation simulator by coupling a discrete element model for fracture generation with a continuum-based multiphase fluid flow and heat transport model; identify and resolve issues that are associated with using air-cooled condensers in the next-generation energy conversion systems, achieve the full benefits of using mixed working fluids in air cooled binary cycles, evaluate the benefits of using air-cooled condensers with flash steam cycles, and establish criteria for designing air-cooled binary plant turbines; and To develop a set of tracer test planning and analysis tools to define the parameters necessary for successful testing. Identify new tracers suitable to a wide range of potential reservoir volumes and permeabilities, and demonstrate the utility of newly developed tracers in a system representative of Enhanced Geothermal Systems

B. Accordingly, pursuant to Section I, Contract Clause I.44, DEAR 970.5232-4 entitled “Obligation of Funds,” funds in the amount of \$6,301.000.00 is hereby obligated in support of Recovery Act activities. The total amount of funds obligated under this contract since its inception is: **SEE ATTACHED INFORMATION SHEETS.**

C. The specific Contractor Recovery Act Statement of Work, Milestones, Outcomes and Measures, and Deliverables funded by this modification are identified in the following referenced Work Authorization:

Work Authorization Number	Work Authorization Title
.BA-500003-20855-10	High Energy Battery Test Facility (INL)
GT-5000003-20685-10	Enhanced Geothermal Systems Research & Development

D. The work described in this modification shall be performed using funds obligated under this contract, which have been appropriated under the Recovery Act of 2009, (Pub. L. 111-5), and as such, is subject to the special statutory conditions and the additional contractual terms and conditions. The funds obligated hereunder shall only be used to accomplish the work as set forth in paragraph C. above and may not be used for any other purpose without the prior written consent of the Contracting Officer.

E. The Contractor shall complete all Recovery Act Work funded by this modification in accordance with Recovery Act requirements, including the required completion dates specified therein, and by the completion date identified in the approved work authorization for the activity.

SECTION B – SUPPLIES OR SERVICES AND PRICES/COSTS

Clause B. 5, Obligation of Funds is revised to read as follows:

The amount presently obligated under this Contract is as follows:

Details regarding the obligational authority for this modification are provided separately in the RA Financial Plan # 10-5 Feb 10

Contract DE-AC07-05ID14517	
Funds Obligated by Contract Award	\$ -
FY 05 Funding Mod Totals 05-01 thru 05-15	\$ 623,283,031.13
FY 06 Funding Mod Totals 06-01 thru 06-27	\$ 774,328,122.14
FY 07 Funding Mod Totals 07-01 thru 07-14	\$ 975,295,354.03
FY 08 Funding Mod Totals 08-01 thru 08-22	\$ 740,655,029.30
FY 09 Funding Mod Totals 09-01 thru 09-22 to include RA1 thru 6	\$ 819,161,791.66
Funds Obligated by Modification No.154 (RA 10 #1)	\$ 594,000.00
Funds Obligated by Modification No.155 (FIN 10-01)	\$ 46,930,310.71
Funds Obligated by Modification No.157 (RA 10 #2)	\$ 146,280.00
Funds Obligated by Modification No.158 (FIN 10-02)	\$ 35,328,850.56
Funds Obligated by Modification No.160 (FIN 10-03)	\$ 149,734,095.37
Funds Obligated by Modification No.162 (RA 10 #3)	\$ 1,113,136.00
Funds Obligated by Modification No.163 (FIN 10-04)	\$ 183,958,527.00
Funds Obligated by Modification No.164 (FIN 10-05)	\$ 70,112,722.32
Funds Obligated by Modification No.165 (FIN 10-06)	\$ 68,445,348.44
Funds Obligated by Modification No.168 (RA 10 #4)	\$ 6,301,000.00
Total Funds Obligated	\$ 4,495,387,598.66

*The following table tracks available budgetary resources for work appropriated under the American Recovery and Reinvestment Act of 2009, Pub. L. 1115 (Recovery Act) and as such is subject to special statutory conditions. Budget Authority in the following table is already included in the total funding table above and is not an additional obligation of funds.

Contract DE-AC07-05ID14517	Funds Obligated by ARRA Funding
Funds Obligated by Modification No.141 (RA #1)	\$ 200,000.00
Funds Obligated by Modification No.143 (RA #2)	\$ 150,000.00
Funds Obligated by Modification No.144 (RA #3)	\$ 3,000.00
Funds Obligated by Modification No.147 (RA #4)	\$ 1,850,000.00

Funds Obligated by Modification No.149 (RA #5)	\$	2,353,000.00
Funds Obligated by Modification No.149 (RA #5)	\$	1,742,000.00
Funds Obligated by Modification No.151 (RA #6)	\$	100,000.00
Funds Obligated by Modification No.154 (RA #1)	\$	594,000.00
Funds Obligated by Modification No.157 (RA #2)	\$	146,280.00
Funds Obligated by Modification No.162 (RA #3)	\$	1,113,136.00
Funds Obligated by Modification No.168 (RA #4)	\$	6,301,000.00
Total Funds Obligated	\$	14,552,416.00