AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	7	PAGE OF PAGES	
		14.556	LINE TO LIFE LANGE DEC. NO.	15.000	1	2
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REC	DUISITION/PURCHASE REQ. NO.	5. PRC	DJECT NO. (If applic	:able)
0394	See Block 16C	7 40	MINISTERED BY // other than item 5)	CODE	100701	
6. ISSUED BY CODE	00701	7. AD	MINISTERED BY (If other than Item 6)	CODE	00701	_
Idaho Operations			ho Operations			
U.S. Department of Energy			. Department of Energy			
Idaho Operations			ho Operations			
1955 Fremont Avenue Idaho Falls ID 83415		1	5 Fremont Avenue 1221			
Idano Falis ID 63415			no Falls ID 83415			
8. NAME AND ADDRESS OF CONTRACTOR (No., street	, county, State and ZIP Code)		AMENDMENT OF SOLICITATION NO.			
		(*)				
BATTELLE ENERGY ALLIANCE LLC						
ATTN ADAM ANDERSEN		98	DATED (SEE ITEM 11)			
PO BOX 1625						
IDAHO FALLS ID 83415		x 10.	A MODIFICATION OF CONTRACT/ORDER N E-AC07-05ID14517	10		
			S-AC07-031D14317			
		10	B. DATED (SEE ITEM 13)			
CODE	FACILITY CODE					
CODE 152020629			1/09/2004			
	11. THIS ITEM ONLY APPLIES T	O AMENDN			is not extended.	
CHECK ONE A THIS CHANGE ORDER IS ISSUED FORDER NO. IN ITEM 10A.	PURSUANT TO: (Specify authority) T	THE CHANG	DDIFIES THE CONTRACT/ORDER NO. AS DE	HE CON	TRACT	
B. THE ABOVE NUMBERED CONTRAC appropriation date, etc.) SET FORTH			MINISTRATIVE CHANGES (such as changes OF FAR 43.103(b).	in paying	опсе,	
x FAR 43.103 (a) (3)						
D. OTHER (Specify type of modification	and authority)				-	
E. IMPORTANT: Contractor is not.	X is required to sign this document	and return	copies to the issuin	g office		
14. DESCRIPTION OF AMENDMENT/MODIFICATION						
Tax ID Number: 68-0588324	organized by o'or socion neadings,	, including 3	onertalion book to a subject marter where reading	<i></i>		
DUNS Number: 152020629						
The purpose of this modifica	tion is to incorpor	rate d	hanges to Part III. Sec	tion	J.	
Attachment K - Performance E	_		•			
specific details.	valuation managemen	ic ria	i approach. See informa	CIOII	pages for	
specific details.						
All other terms and conditio	ns remain unchanged	d.				
Continued						
Except as provided herein, all terms and conditions of the 15A. NAME AND TITLE OF SIGNER (Type or print)	e document referenced in Item 9 A or		retofore changed, remains unchanged and in t NAME_AND TITLE OF CONTRACTING OFFI	······		
Adam D. Andersen, BEA Contrac	ting Officer	Jef	frey C. Fogg			
159 CONTRACTORIOEFEROR AND	15C. DATE SIGNED	16B. I	INITED STATES OF AMERICA		- 16C. DATE S	IGNED
(Signature of person authorized to sign)	7/1912	17	(Signature of Contracting Misch)		7 I	

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED)F
	DE-AC07-05ID14517/0394	2	2

NAME OF OFFEROR OR CONTRACTOR
BATTELLE ENERGY ALLIANCE LLC

M NO.	SUPPLIES/SERVICES	QUANTITY		UNIT PRICE	AMOUNT
A)	(B)	(C)	(D)	(E)	(F)
	Payment:				
	OR for Idaho			·	
	U.S. Department of Energy	İ			
	Oak Ridge Financial Service Center				
	P.O. Box 4368				
	Oak Ridge TN 37831				
	Period of Performance: 11/09/2004 to 09/30/2019				
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The purpose of this modification is to incorporate changes made to the Fiscal Year (FY) 2017 Performance Evaluation and Measurement Plan (PEMP).

Objective 1.1, Notable Outcome 1.1.A

Old Language:

1.1.A -- Gateway for Accelerated Innovation in Nuclear (GAIN)

Based on input received from GAIN stakeholders during FY 2016 workshops and meetings, the following are the important activities identified for FY 2017:

- Support development of a flexible fast spectrum test reactor options study based on industry requirements;
- As a small-scale technology demonstration, complete the feasibility study for a megawatt scale critical molten salt loop with dissolved fuel; and
- Develop an electronic catalogue for MOOSE and MOOSE-based applications with a
 description and a set of demonstration problems for each application and make it
 available to industry.

New Language:

1.1.A -- Gateway for Accelerated Innovation in Nuclear (GAIN)

Based on input received from GAIN stakeholders during FY 2016 workshops and meetings, the following are the important activities identified for FY 2017:

- Lead development of a new flexible fast spectrum test reactor research and development program; and
- Develop an electronic catalogue for MOOSE and MOOSE-based applications with a
 description and a set of demonstration problems for each application and make it
 available to industry.

Objective 1.4, Notable Outcome 1.4.A

Old Language:

1.4.A – *University Collaboration*

Development and Implementation of a strategic systems analysis capability in support of the Office of Nuclear Energy. (Final Notable Outcome Language TBD pending ongoing discussions)

New Language:

1.4.A – University Collaboration

Development and implementation of a strategic systems analysis capability in support of the Office of Nuclear Energy via Energy Systems Strategies, Assessment, and Integration (ESSAI). ESSAI seeks to provide timely, quantified, and unbiased data to inform global clean energy investment and policy decisions through comprehensive, multi-disciplinary research that integrates social, economic, legal, policy, and systems-level strategic insights with a focus on the role of nuclear energy.

ESSAI studies will host projects through the Center for Advanced Energy Studies (CAES) and coordinate the outcomes through the GAIN initiative. ESSAI will combine the skills of national and international partners with a unique set of analytical capabilities required to achieve the volume and complexity of the required studies in an increasingly fast-paced and uncertain international energy market. In FY 2017, INL will achieve the following:

- Implement the ESSAI functional structure;
- INL will support the following studies, with government and industry input:
 - Economic and Market Challenges Facing U.S. Commercial Nuclear Fleet. This is a 12 month study that will be completed in FY 2018. The first phase of the study, defined with input from DOE, will be completed in FY 2017 with an interim report as the deliverable.
 - O Quantifying the National Security Implications of U.S. Market Position in the Global Nuclear Supply Chain. This study will be conducted by JASON under a contract. INL will define the scope and deliverables of the study and provide the technical input needed during the conduct of the study.
- Based on the first year's experience, evaluate and provide a report on the functioning of the initial ESSAI model; suggest modifications as necessary.

<u>Objective 2.1 Minor Revision:</u> For consistency, a statement was added to clarify that Objective 2.1 does not have any applicable Notable Outcomes.

Objective 2.1: Provide Effective Facility Design(s) as Required to Support Laboratory Programs (i.e., activities leading up to CD-2)

As applicable, provide quality justifications for new R&D facility needs, quality conceptual and pre-conceptual designs, leveraging with existing facilities, and financing options.

Notable Outcome(s) 2.1 Provide Effective Facility Design(s) as Required to Support Laboratory Programs (i.e., activities leading up to CD-2):

• None.

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<u>Objective 2.4 Minor Revision:</u> A period was added after "None" for the Notable Outcome section.

Objective 2.4: Utilization of Facility(ies) to Provide Impactful S&T Results and Benefits to Internal and External User Communities

Ensures Laboratory facilities are being used to perform influential science and generating impactful S&T results, pushes the envelope of what the facility can do and/or are among the scientific leaders of the community, while balancing both internal and external user communities.

Notable Outcome(s) 2.4 Utilization of Facility(ies) to Provide Impactful S&T Results and Benefits to Internal and External User Communities:

None.

A revised FY 2017 PEMP is included as an attachment to this modification.

(end of modification)