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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603851D8Z / <i>Environmental Security Technology Certification Program</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	194.592	62.432	52.654	52.491	-	52.491	56.771	60.999	61.784	62.952	Continuing	Continuing
P514: <i>Environmental Security Technology Certification Program</i>	194.592	62.432	52.654	52.491	-	52.491	56.771	60.999	61.784	62.952	Continuing	Continuing

A. Mission Description and Budget Item Justification

(U) The Environmental Security Technology Certification Program (ESTCP) demonstrates and validates the most promising innovative environmental and energy technologies that target DoD's most urgent needs. Technologies selected are projected to provide a return on the investment through cost savings and improved efficiencies. The program responds to: (1) Congressional concern over the slow pace of remediation of environmentally polluted sites on military installations, (2) Congressional direction to conduct demonstrations specifically focused on emerging new technologies, and (3) the need to improve defense readiness by reducing the drain on the Department's operation and maintenance dollars caused by environmental restoration, waste management, and the cost of energy. Preference for demonstrations is given to technologies that have successfully completed all necessary research and development objectives, and address the highest priority DoD requirements.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	63.871	52.758	54.496	-	54.496
Current President's Budget	62.432	52.654	52.491	-	52.491
Total Adjustments	-1.439	-0.104	-2.005	-	-2.005
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.025	-0.104			
• SBIR/STTR Transfer	-1.414	-			
• Realignment	-	-	-0.602	-	-0.602
• Economic Assumptions Adjustment	-	-	-0.414	-	-0.414
• Efficiency Reduction	-	-	-0.989	-	-0.989

Change Summary Explanation

Funding realigned to other programs. Other reductions in FY 17 is a result of department efficiency and economic assumptions adjustments.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense										Date: February 2016		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0603851D8Z / Environmental Security Technology Certification Program				Project (Number/Name) P514 / Environmental Security Technology Certification Program			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P514: Environmental Security Technology Certification Program	194.592	62.432	52.654	52.491	-	52.491	56.771	60.999	61.784	62.952	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

(U) The Environmental Security Technology Certification Program (ESTCP) demonstrates and validates the most promising innovative environmental and energy technologies that target DoD's most urgent needs. Technologies selected are projected to provide a return on the investment through cost savings and improved efficiencies. The program responds to: (1) Congressional concern over the slow pace of remediation of environmentally polluted sites on military installations, (2) Congressional direction to conduct demonstrations specifically focused on emerging new technologies, and (3) the need to improve defense readiness by reducing the drain on the Department's operation and maintenance dollars caused by environmental restoration, waste management, and the cost of energy. Preference for demonstrations is given to technologies that have successfully completed all necessary research and development objectives, and address the highest priority DoD requirements.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2015	FY 2016	FY 2017
Title: Environmental Technology Demonstration/Validation	33.317	29.038	29.080
Description: Funds are programmed for investments in projects that address priority DoD environmental requirements. The focus of the program is on live site unexploded ordnance (UXO) discrimination demonstrations, addressing emerging and recalcitrant cleanup issues, range sustainment technologies, and reducing life cycle costs of DoD weapon systems by eliminating hazardous materials. Accomplishments/plans are described for each FY below.			
FY 2015 Accomplishments: Funds were invested in projects that address priority DoD environmental requirements. New investment topics for FY 2015 included: 1) Assessment of Vapor Intrusion from Subsurface Volatile Organic Compound Contamination, 2) Weapons Systems & Platforms Manufacturing and Maintenance, Green Energetics, and Waste Reduction. Funding in FY 2015 also supports live site UXO demonstrations. This initiative will transition innovative technologies that can reduce DoD's military munitions response liabilities by approximately 75% with an expected cost savings of \$10 billion. Details are provided at www.serdp-estcp.org .			
FY 2016 Plans: Funds are planned for continued investment in projects that address priority DoD environmental requirements. Focused new investment topics for FY 2016 include: 1) Management of Contaminated Groundwater and 2) Detection, Classification, and Remediation of Military Munitions in Underwater Environments. Details are provided at www.serdp-estcp.org .			
FY 2017 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
Funds are planned for continued investment in projects that address priority DoD environmental requirements and new Investments in technology for the most challenging remaining groundwater restoration sites, scale up demonstrations for Underwater Unexploded Ordnance, and demonstrations of environmentally benign surface engineering technology at larger scales.				
Title: Energy Technology Demonstration/Validation		29.115	23.616	23.411
Description: Funds are programmed for investments in energy projects that constitute the Installation Energy Test Bed Initiative. This initiative responds to Congressional direction for the Department to increase energy efficiency, reduce installation energy intensity, increase the use of renewable energy, and improve energy security. Emerging energy technologies offer DoD a cost effective opportunity to meet these requirements on its installations while reducing energy and operational costs. The DoD test bed program validates and tests the operational cost and performance of innovative energy technologies in a real-world integrated building environment so as to reduce risk, overcome the barriers to deployment, and facilitate wide-scale deployment. The test bed program exploits the Department's existing built infrastructure to evaluate energy efficiency and renewable energy technologies under the varied climatic conditions and building types DoD manages. The test bed's key elements are: 1) competitive selection of new technologies, 2) systematic and consistent evaluation to determine performance, operational readiness and life cycle costs, and 3) development of guidance and design information for future deployment across installations.				
FY 2015 Accomplishments: Funds were invested in energy projects that constitute the Installation Energy Test Bed Initiative. In FY 2015 ESTCP funded new technology demonstrations in two areas: 1) Energy Efficiency for Military Buildings and 2) Water Conservation and Reuse for Military Facilities. Information on existing demonstrations can be found at www.serdp-estcp.org .				
FY 2016 Plans: Funds are planned to continue investments in energy and water projects that constitute the Installation Energy Test Bed Initiative. In FY 2016, ESTCP solicited proposals for funding in two areas: 1) Energy Generation, Storage, Dispatch and Management on Military Installations and 2) Cybersecure Connectivity for Energy System Components and Military Installation Energy Infrastructure. Details are provided at www.serdp-estcp.org .				
FY 2017 Plans: Funds are planned to continue investments in energy and water projects that constitute the Installation Energy Test Bed Initiative.				
Accomplishments/Planned Programs Subtotals		62.432	52.654	52.491
C. Other Program Funding Summary (\$ in Millions)				
N/A				

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C. Other Program Funding Summary (\$ in Millions)

Remarks

D. Acquisition Strategy

ESTCP solicits proposals from all DoD organizations, other Federal Agencies, and the commercial sector. Projects are selected based on an annual competitive process through reviews by multi-agency panels.

E. Performance Metrics

Performance in this program is monitored at two levels. At the lowest level, each individual project is measured against technical and financial milestones on a quarterly and annual basis. At a program-wide level, progress is measured against DoD's environmental requirements and the demonstration and transition of technologies that address these requirements.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

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Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support Contract	C/IDDQ	HGL : Reston, VA	9.160	2.600		2.496		2.152		-		2.152	Continuing	Continuing	-
Subtotal			9.160	2.600		2.496		2.152		-		2.152	-	-	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Energy and Water	C/TBD	TBD : TBD	82.795	27.815		22.368		23.411		-		23.411	Continuing	Continuing	-
Weapons Systems and Platforms	C/TBD	TBD : TBD	27.191	9.153		7.743		7.506		-		7.506	Continuing	Continuing	-
Munitions Response	C/TBD	TBD : TBD	21.063	7.370		6.117		6.351		-		6.351	Continuing	Continuing	-
Environmental Restoration	C/TBD	TBD : TBD	34.851	10.270		8.900		8.766		-		8.766	Continuing	Continuing	-
Resource Conservation and Climate Change	C/TBD	TBD : TBD	19.532	5.224		5.030		4.305		-		4.305	Continuing	Continuing	-
Subtotal			185.432	59.832		50.158		50.339		-		50.339	-	-	-

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	194.592	62.432	52.654	52.491	-	52.491	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Office of the Secretary Of Defense		Date: February 2016
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ID	Task Name	Duration	Start	Finish	Predecessors	2015				2016				2017		
						Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1
1	FY 2015 In-Progress Reviews	173 days?	Wed 10/1/14	Fri 5/29/15												
2	Develop FY 2016 Program	217 days?	Thu 1/1/15	Fri 10/30/15												
3	FY 2016 In-Progress Reviews	172 days?	Thu 10/1/15	Fri 5/27/16												
4	Develop FY 2017 Program	217 days?	Fri 1/1/16	Mon 10/31/16												
5	FY 2017 In-Progress Reviews	172 days?	Mon 10/3/16	Tue 5/30/17												

Project: ESTCP R-4 Jul 2015 Date: Mon 7/20/15	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Office of the Secretary Of Defense		Date: February 2016
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>In Progress Reviews</i>				
FY 2015 In Progress Reviews	1	2015	3	2015
FY 2016 In Progress Reviews	1	2016	3	2016
FY 2017 In Progress Reviews	1	2017	3	2017
<i>Develop Program</i>				
Develop FY 2016 Program	1	2015	4	2015
Develop FY 2017 Program	1	2016	4	2016

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