

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2012 Air Force	<b>DATE:</b> February 2011
--	----------------------------

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0702976F: <i>Facilities Restoration &amp; Modernization (Logistics)</i>
--	--

<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	35.523	-	-	-	-	-	-	-	-	Continuing	Continuing
675367: <i>Alternative Energy</i>	35.523	-	-	-	-	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Alternative energy initiatives validate the operational use of alternative energy technologies for use at Air Force installations. The effort includes evaluating coal to liquid technology, wind, solar, hybrid wind diesel power production and geo-thermal ground source heat pumps. Federal law requires all federal agencies to increase the use of renewable. Annual goals for electricity generated with renewable increase every year beginning with FY07 with a final goal of 25% in 2025. This initiative provides alternative sources for electric power that decreases US dependence of foreign oil.

<b>B. Program Change Summary (\$ in Millions)</b>	<b><u>FY 2010</u></b>	<b><u>FY 2011</u></b>	<b><u>FY 2012 Base</u></b>	<b><u>FY 2012 OCO</u></b>	<b><u>FY 2012 Total</u></b>
Previous President's Budget	35.523	-	-	-	-
Current President's Budget	35.523	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-	-	-

**Change Summary Explanation**

FY09 Congressional Earmarks to research and develop alternative energy

**UNCLASSIFIED**

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0702976F: Facilities Restoration & Modernization (Logistics)				PROJECT 675367: Alternative Energy			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675367: Alternative Energy	35.523	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
Alternative energy initiatives validate the operational use of alternative energy technologies for use at Air Force installations. The effort includes evaluating coal to liquid technology, wind, solar, hybrid wind diesel power production and geo-thermal ground source heat pumps. Federal law requires all federal agencies to increase the use of renewable. Annual goals for electricity generated with renewable increase every year beginning with FY07 with a final goal of 25% in 2025. This initiative provides alternative sources for electric power that decreases US dependence of foreign oil.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Research and Develop Alternative Energy Initiatives							35.523	-	-	-	-
Description: Research and Develop Alternative Energy Initiatives											
FY 2010 Accomplishments: Continuation of above listed activities											
FY 2011 Plans:											
FY 2012 Base Plans:											
FY 2012 OCO Plans:											
Title: MAJOR THRUST							-	-	-	-	-
Description: Research the Handling of CTL Bi-Products											
FY 2010 Accomplishments:											
FY 2011 Plans:											
FY 2012 Base Plans:											
FY 2012 OCO Plans:											
Title: MAJOR THRUST (1)							-	-	-	-	-
Description: Demonstrate the use of Solar Photovoltaic Arrays											

**UNCLASSIFIED**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Air Force				<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0702976F: <i>Facilities Restoration &amp; Modernization (Logistics)</i>		<b>PROJECT</b> 675367: <i>Alternative Energy</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>					
	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
<b>FY 2010 Accomplishments:</b> <b>FY 2011 Plans:</b> <b>FY 2012 Base Plans:</b> <b>FY 2012 OCO Plans:</b>					
<b>Title:</b> MAJOR THRUST (2) <b>Description:</b> Explore Renewable Energy Sources  <b>FY 2010 Accomplishments:</b> <b>FY 2011 Plans:</b> <b>FY 2012 Base Plans:</b> <b>FY 2012 OCO Plans:</b>	-	-	-	-	-
<b>Title:</b> MAJOR THRUST (3) <b>Description:</b> Evaluate the Concept of Hybrid Wind Diesel  <b>FY 2010 Accomplishments:</b> <b>FY 2011 Plans:</b> <b>FY 2012 Base Plans:</b> <b>FY 2012 OCO Plans:</b>	-	-	-	-	-
<b>Title:</b> MAJOR THRUST (4) <b>Description:</b> Investigate the use of Biomass Gasifier to generate Electrical Energy  <b>FY 2010 Accomplishments:</b> <b>FY 2011 Plans:</b> <b>FY 2012 Base Plans:</b> <b>FY 2012 OCO Plans:</b>	-	-	-	-	-

**UNCLASSIFIED**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Air Force						<b>DATE:</b> February 2011					
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0702976F: <i>Facilities Restoration &amp; Modernization (Logistics)</i>				<b>PROJECT</b> 675367: <i>Alternative Energy</i>			

  

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
<b>Accomplishments/Planned Programs Subtotals</b>	35.523	-	-	-	-

  

<b>C. Other Program Funding Summary (\$ in Millions)</b>												
	<u><b>Line Item</b></u>	<u><b>FY 2010</b></u>	<u><b>FY 2011</b></u>	<u><b>FY 2012 Base</b></u>	<u><b>FY 2012 OCO</b></u>	<u><b>FY 2012 Total</b></u>	<u><b>FY 2013</b></u>	<u><b>FY 2014</b></u>	<u><b>FY 2015</b></u>	<u><b>FY 2016</b></u>	<u><b>Cost To Complete</b></u>	<u><b>Total Cost</b></u>
• N/A:		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

  

**D. Acquisition Strategy**  
Office of Primary Responsibility (OPR) will determine contract vehicle.

  

**E. Performance Metrics**  
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2012 Air Force											<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0702976F: <i>Facilities Restoration &amp; Modernization (Logistics)</i>				<b>PROJECT</b> 675367: <i>Alternative Energy</i>					
<b>Product Development (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Research and Develop Alternative Energy	TBD	TBD:TBD	8.000	-		-		-		-	0.000	8.000	0.000
<b>Subtotal</b>			8.000	-		-		-		-	0.000	8.000	0.000
<b>Support (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			-	-		-		-		-	0.000	0.000	0.000
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			-	-		-		-		-	0.000	0.000	0.000
<b>Management Services (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			-	-		-		-		-	0.000	0.000	0.000
			<b>Total Prior Years Cost</b>	<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			8.000	-		-		-		-	0.000	8.000	0.000
<b>Remarks</b>													

**UNCLASSIFIED**

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force			DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE		PROJECT	
3600: Research, Development, Test & Evaluation, Air Force		PE 0702976F: Facilities Restoration &		675367: Alternative Energy	
BA 7: Operational Systems Development		Modernization (Logistics)			

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Research and Develop Alternative Energy																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 Air Force			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0702976F: <i>Facilities Restoration &amp; Modernization (Logistics)</i>	<b>PROJECT</b> 675367: <i>Alternative Energy</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Research and Develop Alternative Energy	1	2010	4	2016

**UNCLASSIFIED**