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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 Air Force **DATE:** 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>
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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
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>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</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

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 Air Force **DATE:** February 2011

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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: <i>Alternative Energy</i>	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
<p><b>Title:</b> Research and Develop Alternative Energy Initiatives</p> <p><b>Description:</b> Research and Develop Alternative Energy Initiatives</p> <p><b>FY 2010 Accomplishments:</b> Continuation of above listed activities</p> <p><b>FY 2011 Plans:</b></p> <p><b>FY 2012 Base Plans:</b></p> <p><b>FY 2012 OCO Plans:</b></p>	35.523	-	-	-	-
<p><b>Title:</b> MAJOR THRUST</p> <p><b>Description:</b> Research the Handling of CTL Bi-Products</p> <p><b>FY 2010 Accomplishments:</b></p> <p><b>FY 2011 Plans:</b></p> <p><b>FY 2012 Base Plans:</b></p> <p><b>FY 2012 OCO Plans:</b></p>	-	-	-	-	-
<p><b>Title:</b> MAJOR THRUST (1)</p> <p><b>Description:</b> Demonstrate the use of Solar Photovoltaic Arrays</p>	-	-	-	-	-



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<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	-	-	-	-

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</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.

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

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</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>

	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																												

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 Air Force **DATE:** 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>
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Schedule Details

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