

## Appendix E

**Table 4-1. CCAC-recommended policy options and results for the energy supply sector**

	Policy Option	GHG Reductions (MMtCO <sub>2</sub> e)			Net Present Value 2007–2020 (Million \$)	Cost-Effectiveness (\$/tCO <sub>2</sub> e)	Level of Support
		2012	2020	Total 2007–2020			
	<b>Energy Supply</b>						
ES-1	Environmental Portfolio Standard (Renewables and Energy Efficiency)						UC
	Efficiency/Conservation	0.03	0.92	5.4	–\$79	–\$15	UC
	Renewable Energy	0.0	1.6	5.5	\$53	\$10	UC
ES-2	Renewable Energy Incentives and Barrier Removal	<i>Not quantified separately (see ES-1 and ES-4)</i>					UC
ES-3	Research and Development (R&D), Including R&D for Energy Storage and Advanced Fossil Fuel Technologies	<i>Not quantified</i>					UC
ES-4	Incentives and Barrier Removal for Combined Heat and Power (CHP) and Clean Distributed Generation (DG)						UC
	Distributed Renewables	0.03	0.10	0.8	\$16	\$21	UC
	Combined Heat and Power	0.2	0.7	5.0	\$81	\$16	UC
ES-5	Incentives for Advanced Fossil Fuel Generation and Carbon Capture and Storage or Reuse (CCSR)						UC
	Reference Case	0	1.0	4.5	\$135	\$30	UC
	High Fossil Fuel Scenario	0	5.2	24.4	\$733	\$30	UC
ES-6	Efficiency Improvements and Repowering of Existing Plants	<i>Not quantified</i>					UC
ES-7	Demand-Side Management	<i>Not quantified separately (see ES-1 and RCI-1)</i>					UC
ES-8/9	Market-Based Mechanisms to Establish a Price Signal for GHG Emissions (GHG Cap-and-Trade or Tax)	<i>Not quantified</i>					UC
ES-10	Generation Performance Standards or GHG Mitigation Requirements for New (and/or Existing) Generation Facilities, With/Without GHG Offsets	0.1	0.8	4.7	\$60	\$13	UC
ES-11	Methane and CO <sub>2</sub> Reduction in Oil and Gas Operations, Including Fuel Use and Emissions Reduction in Venting and Flaring						UC
	Reference Case	0.1	0.5	3.9	<i>Not estimated</i>	<i>Likely net benefit</i>	UC
	High Fossil Fuel Case	0.3	0.8	6.6	<i>Not estimated</i>	<i>Likely net benefit</i>	UC
ES-12	GHG Reduction in Refinery Operations, Including in Future Coal-to-Liquids Refineries						UC
	Coal-to-Liquids – High Fossil Fuel Case	0	9.9	35	<i>Not estimated</i>	<i>Not estimated</i>	UC
	Petroleum Refining - Reference Case	0.02	0.24	1.5	<i>Not estimated</i>	<i>Not estimated</i>	UC
	Petroleum Refining - High Fossil Fuel Case	0.03	0.38	2.2	<i>Not estimated</i>	<i>Not estimated</i>	UC

	Policy Option	GHG Reductions (MMtCO <sub>2</sub> e)			Net Present Value 2007–2020 (Million \$)	Cost-Effectiveness (\$/tCO <sub>2</sub> e)	Level of Support
		2012	2020	Total 2007–2020			
ES-13	CO <sub>2</sub> Capture and Storage or Reuse (CCSR) in Oil & Gas Operations, Including Refineries and Coal-to-Liquids Operations	<i>Incorporated in ES-5 and ES-12</i>					UC
	<b>Sector Total After Adjusting for Overlaps (Among ES Options and After Demand Reductions From RCI Options)</b>						
	Reference Case	0.4	4.2	21.9	\$272	\$17	
	High Fossil Fuel Case	0.4	18.7	79.4	\$870	\$24	

UC – Unanimous Consent