Appendix D

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

	Policy Option	GHG Reductions ($MMtCO_2e$)			Net Present Value 2007–2020 (Million $)	Cost-Effective-ness ($/$tCO_2e$)	Level of Support
		2012	2020	Total 2007–2020			
	Energy Supply						
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	*Not quantified separately (see ES-1 and ES-4)*					UC
ES-3	Research and Development (R&D), Including R&D for Energy Storage and Advanced Fossil Fuel Technologies	*Not quantified*					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	*Not quantified*					UC
ES-7	Demand-Side Management	*Not quantified separately (see ES-1 and RCII-1)*					UC
ES-8/9	Market-Based Mechanisms to Establish a Price Signal for GHG Emissions (GHG Cap-and-Trade or Tax)	*Not quantified*					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_2 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	*Not estimated*	*Likely net benefit*	UC
	High Fossil Fuel Case	0.3	0.8	6.6			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	*Not estimated*	*Not estimated*	UC
	Petroleum Refining - Reference Case	0.02	0.24	1.5	*Not estimated*	*Not estimated*	UC
	Petroleum Refining - High Fossil Fuel Case	0.03	0.38	2.2	Not estimated	Not estimated	UC

	Policy Option	GHG Reductions ($MMtCO_2e$)			Net Present Value 2007–2020 (Million $)	Cost-Effective-ness ($/$tCO_2e$)	Level of Support
		2012	2020	Total 2007–2020			
ES-13	CO_2 Capture and Storage or Reuse (CCSR) in Oil & Gas Operations, Including Refineries and Coal-to-Liquids Operations	*Incorporated in ES-5 and ES-12*					UC
	Sector Total After Adjusting for Overlaps (Among ES Options and After Demand Reductions From RCI Options)						
	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