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Analysis of S.139, the Climate Stewardship Act of 2003

Table 3.1. Comparison of Compliance Results in the S.139 and Selected Sensitivity Cases (million metric tons carbon equivalent)

	2010				2025			
	S.139	S.139 High Tech	No New Nuclear, No Seq.	No Banking	S.139	S.139 High Tech	No New Nuclear, No Seq	No Banking
Greenhouse Gas Emissions								
Energy-Related Carbon Dioxide	1,710	1,696	1,703	1,747	1,482	1,477	1,534	1,485
Non-Energy Carbon Dioxide	40	40	40	40	46	46	46	46
Methane	115	119	115	125	120	120	120	120
Nitrous Oxide	121	121	121	121	137	137	137	137
High GWP Gases (HFCs, PFCs, and SF_6)	50	52	50	54	106	109	106	106
Total	**2,036**	**2,028**	**2,029**	**2,087**	**1,891**	**1,889**	**1,943**	**1,894**
S.139 Compliance Summary								
Covered Energy-Related CO_2	1,513	1,499	1,506	1,550	1,257	1,253	1,306	1,254
Other Covered GHG Emissions	70	72	70	75	128	131	128	128
Total Covered Emissions	**1,583**	**1,571**	**1,576**	**1,625**	**1,385**	**1,384**	**1,434**	**1,382**
Offset Reductions Purchased								
Noncovered Greenhouse Gases	49	45	49	40	39	39	39	39
Increases in Biological Carbon Sequestration	113	106	113	93	87	87	87	86
International Offsets	73	56	73	29	0	0	0	0
Total Offset Reductions	**235**	**207**	**235**	**162**	**126**	**126**	**126**	**126**
Covered Emissions, Less Offsets	1,349	1,365	1,341	1,464	1,259	1,258	1,307	1,257
Emission Allowances Issued	1,465	1,465	1,465	1,465	1,258	1,258	1,258	1,258
Allowance Bank Change (+, deposit; -, withdrawal)	+117	+101	+124	+1	-1	0	-50	+1
Greenhouse Gas Emission Allowance Price								
(2001 dollars per metric ton carbon equivalent)	79	59	87	40	221	159	297	204
(2001 dollars per metric ton carbon dioxide equivalent)	*22*	*16*	*24*	*11*	*60*	*43*	*81*	*56*
Offset Trading Price								
(2001 dollars per metric ton carbon equivalent)	71	59	72	40	52	52	52	51
(2001 dollars per metric ton carbon dioxide equivalent)	*19*	*16*	*20*	*11*	*14*	*14*	*14*	*14*

Source: Energy Information Administration, Office of Integrated Analysis and Forecasting, National Energy Modeling System runs MLBILL.D050503A, ML_HT.D050503A, ML0NUCSEQ.D050403A, and ML_NOBANK_4.D051203A.

Table 3.2. Comparison of Compliance Results in the S.139 and Offset Sensitivity Cases (million metric tons carbon equivalent)

	2010				2025			
	S.139	Offset50	Intl100	Intl0	S.139	Offset50	Intl100	Intl0
Greenhouse Gas Emissions								
Energy-Related Carbon Dioxide	1,710	1,737	1,710	1,704	1,482	1,697	1,482	1,482
Non-Energy Carbon Dioxide	40	40	40	40	46	46	46	46
Methane	115	117	120	114	120	111	120	120
Nitrous Oxide	121	121	121	121	137	137	137	137
High GWP Gases (HFCs, PFCs, and SF_6)	50	51	50	50	106	106	106	106
Total	**2,036**	**2,066**	**2,041**	**2,028**	**1,891**	**2,098**	**1,891**	**1,891**
S.139 Compliance Summary								
Covered Energy-Related CO_2	1,513	1,540	1,513	1,507	1,257	1,475	1,256	1,256
Other Covered GHG Emissions	70	71	70	70	128	128	128	128
Total Covered Emissions	**1,583**	**1,611**	**1,583**	**1,577**	**1,385**	**1,603**	**1,384**	**1,384**
Offset Reductions Purchased								
Noncovered Greenhouse Gases	49	47	43	50	39	48	39	39
Increases in Biological Carbon Sequestration	113	108	101	120	87	134	87	87
International Offsets	73	63	90	0	0	165	0	0
Total Offset Reductions	**235**	**218**	**234**	**170**	**126**	**346**	**126**	**126**
Covered Emissions, Less Offsets	1,349	1,393	1,349	1,407	1,259	1,256	1,258	1,258
Emission Allowances Issued	1,465	1,465	1,465	1,465	1,258	1,258	1,258	1,258
Allowance Bank Change (+, deposit; -, withdrawal)	+117	+72	+116	+58	-1	+1	0	0
Greenhouse Gas Emission Allowance Price								
(2001 dollars per metric ton carbon equivalent)	79	64	79	84	221	174	222	223
(2001 dollars per metric ton carbon dioxide equivalent)	*22*	*17*	*22*	*23*	*60*	*48*	*60*	*61*
Offset Trading Price								
(2001 dollars per metric ton carbon equivalent)	71	64	51	84	52	174	52	52
(2001 dollars per metric ton carbon dioxide equivalent)	*19*	*17*	*14*	*23*	*14*	*48*	*14*	*14*

Source: Office of Integrated Analysis and Forecasting, National Energy Modeling System runs MLBILL.D050503A, OFFSET50.D052303A, ML_INTL100.D052703A, and ML_INTL0.D051903A.