

Federal Government Estimates of the Social Cost of Carbon

A working group of federal regulatory agencies has developed a social cost of carbon (SCC) for use in regulatory impact analyses to “estimate of the monetized damages associated with an incremental increase in carbon emissions in a given year.” “It is intended to include (but is not limited to) changes in net agricultural productivity, human health, property damages from increased flood risk, and the value of ecosystem services due to climate change.”

The interagency working group first issued a set of SCC values in a “technical support document” (TSD) released in [2010](#), and has revised it twice, in [May 2013](#) and [November 2013](#). The tables below reproduce the three tables presented in each of these TSDs.

These tables reflect the estimated values in different years using different discount rates and model assumptions. According to the 2010 TSD:

The interagency group selected four SCC values for use in regulatory analyses. Three values are based on the average SCC from three integrated assessment models, at discount rates of 2.5, 3, and 5 percent. The fourth value, which represents the 95th percentile SCC estimate across all three models at a 3 percent discount rate, is included to represent higher-than-expected impacts from temperature change further out in the tails of the SCC distribution.

Federal Estimates as of February 2010 Social Cost of CO₂, 2010 – 2050 (in 2007 dollars)

Year	5% (Avg)	3% (Avg)	2.5% (Avg)	3% (95 th)
2010	4.7	21.4	35.1	64.9
2015	5.7	23.8	38.4	72.8
2020	6.8	26.3	41.7	80.7
2025	8.2	29.6	45.9	90.4
2030	9.7	32.8	50.0	100.0
2035	11.2	36.0	54.2	109.7
2040	12.7	39.2	58.4	119.3
2045	14.2	42.1	61.7	127.8
2050	15.7	44.9	65.0	136.2

Source: [Technical Support Document: - Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis - Under Executive Order 12866 - Interagency Working Group on the Social Cost of Carbon, United States Government](#), February 2010



Revised Federal Estimates as of May 2013
Social Cost of CO₂, 2010 – 2050 (in 2007 dollars)

Year	5% (Avg)	3% (Avg)	2.5% (Avg)	3% (95 th)
2010	11	33	52	90
2015	12	38	58	109
2020	12	43	65	129
2025	14	48	70	144
2030	16	52	76	159
2035	19	57	81	176
2040	21	62	87	192
2045	24	66	92	206
2050	27	71	98	221

Source: [Technical Support Document: - Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis - Under Executive Order 12866 - Interagency Working Group on the Social Cost of Carbon, United States Government](#), May 2013

Revised Federal Estimates as of November 2013
Social Cost of CO₂, 2010 – 2050 (in 2007 dollars)

Year	5% (Avg)	3% (Avg)	2.5% (Avg)	3% (95 th)
2010	11	32	51	89
2015	11	37	57	109
2020	12	43	64	128
2025	14	47	69	143
2030	16	52	75	159
2035	19	56	80	175
2040	21	61	86	191
2045	24	66	92	206
2050	26	71	97	220

Source: [Technical Support Document: - Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis - Under Executive Order 12866 - Interagency Working Group on the Social Cost of Carbon, United States Government](#), November 2013

The Office of Management and Budget [seeks comments](#) on the November 2013 TSD. Comments should be submitted electronically to OMB by January 27, 2014 through www.regulations.gov.

