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Should Missouri Consider the Social Cost of Carbon in Policymaking?

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On September 19 of 2020 the Metronome, a public art installation in New York City's Union Square, changed from showing the time remaining until midnight on its digital display to a countdown much more ominous.[1] At 3:20 p.m., messages such as "The Earth has a deadline" began to appear, followed by a string of numbers: 7:103:15:40:07.[2] These numbers came from the Mercator Research Institute on Global Commons and Climate Change and represented a sobering projection.[3] Based on emission levels at the time, the Earth had 7 years, 103 days, 15 hours, 40 minutes, and 7 seconds until the Earth's carbon budget ran out, signifying irreversible damage to the climate.[4] While the Climate Clock is a new concept, concerns with protecting the environment are not. One way federal agencies have attempted to address these concerns is by considering the environmental impact of new rules and regulations.[5] One useful tool that has been developed for this purpose is the social cost of carbon (SCC). Because the SCC was created with the intention of being used by federal agencies, it can also be an effective tool in state-level regulation as well and would be a useful metric for reducing carbon emissions by states like Missouri.

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[1] Colin Moynihan, *A New York Clock That Told Time Now Tells the Time*, N.Y. TIMES (Apr. 19, 2021), https://www.nytimes.com/2020/09/20/arts/design/climate-clock-metronome-nyc.html.

[2] *Id.*

[3] MERCATOR RESEARCH INSTITUTE ON GLOBAL COMMONS AND CLIMATE CHANGE, *Remaining carbon budget*, https://www.mcc-berlin.net/en/research/co2-budget.html (last visited Jan. 21, 2022).

[4] *Id.*

[5] For example, see the Preamble of the National Environmental Policy Act (NEPA): "To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality." 42 U.S.C. § 4321.

The Supreme Court case Massachusetts v. Environmental Protection Agency was the first to require a federal agency, there the EPA, to take regulatory action upon a finding that a proposed rule would contribute to climate change.[6] Shortly after Massachusetts v. EPA, in 2008 the 9th Circuit Court of Appeals held in Center for Biological Diversity v. National Highway Traffic Safety Administration (hereinafter *NHTSA*) that the NHTSA was required to consider the benefit of reducing carbon emissions when using cost-benefit analysis in its rulemaking.[7] There, the NHTSA was tasked with creating a new rule setting corporate average fuel economy (CAFE) standards for light trucks.[8] Under the National Environmental Policy Act (NEPA), NHTSA was required to issue an environmental assessment (EA) to determine if the proposed action could cause significant harm to the environment.[9] NHTSA's draft EA was challenged for focusing on the economic benefits to manufacturers while failing to give any weight to the benefits of reducing carbon emissions.[10] The agency's reasoning (or, in some's eyes, excuse) for this was that there was too much variations in estimated monetary damages from carbon emissions, making it too uncertain to be viably used in its cost-benefit analysis.[11] While the 9th Circuit ultimately did not buy this argument[12], the case did demonstrate how a uniform monetary value for carbon emissions would be a useful tool for federal agencies. In response, the Obama Administration put together an Interagency Working Group (IWG) tasked with developing a uniform monetary estimate of carbon

[6] Mass. v. EPA, 549 U.S. 497, 534 (2007).
[7] Ctr. for Biological Diversity v. National Highway Traffic Safety Admin., 538 F.3d 1172, 1198 (9th Cir. 2008).
[8] *Id.*
[9] 42 U.S.C. § 4321
[10] *NHTSA*, 538 F.3d at 1198.
[11] *Id.*
[12] *Id.* at 1202.

emissions to be used across all federal agencies: a social cost of carbon (SCC).[13]

The IWG's SCC (IWGSCC) is a dollar estimate of the damages that result from the emission of one metric ton of carbon into the atmosphere.[14] This figure is calculated using climate economic impact models and other existing academic literature, and the value is meant to change with new research and data from both environmental and economic sources.[15] SCC estimates are calculated in a four step process: (1) predict future emissions based on population, economic growth, and other factors; (2) model future climate responses, such as temperature increase and sea level rise; (3) assess the economic impact that these climatic changes will have on agriculture, health, energy use, and other aspects of the economy; and (4) convert future damages into their present-day value and add them up to determine the total damages.[16] This last step involves the use of a "discount rate," which represents how much present-day weight is placed on future impacts.[17] The IWG selected four discount rates of 2.5%, 3%, 5%, and 3% applied to a fourth SCC that bases its estimate on the ninety-fifth percentile estimates from the models instead of the averages.[18]

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[13] INSTITUTE FOR POLICY INTEGRITY, *Social Costs of Greenhouse Gases* (Feb. 2017), https://policyintegrity.org/files/publications/Social_Cost_of_Greenhouse_Gases_Factsheet.pdf.

[14] INSTITUTE FOR POLICY INTEGRITY, *The Cost of Carbon Pollution*, https://costofcarbon.org/ (last visited Jan. 21, 2022).

[15] INSTITUTE FOR POLICY INTEGRITY, *supra* note 13.

[16] Kevin Rennert and Cora Kingdon, *Social Cost of Carbon 101*, RESOURCES FOR THE FUTURE (Aug. 1, 2019), https://media.rff.org/documents/SCC_Explainer.pdf.

[17] *Id.*

[18] Interagency Working Group on Social Cost of Carbon (IWGSCC), *Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866*, OBAMA WHITE HOUSE ARCHIVE 1 (Feb. 2010), https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf.

Using the IWG's models, the Obama Administration found the SCC to be fifty-two dollars per ton at a three percent discount rate.[19] Under the Trump Administration, the IWG was disbanded by then President Trump, and an interim SCC was used at one dollar per ton with an unprecedented seven percent discount rate.[20] The Trump Administration's SCC also only considered domestic impacts from carbon emissions, as opposed to considering global impacts as the previous IWGSCC had.[21] The Biden Administration has reinstated the IWG, which has recommended an interim SCC of fifty-one dollars per ton, and is set to release a final SCC in January of 2022.[22]

While none are required to, some states have adopted the IWGSCC into their own policymaking.[23] So far, eleven states have used or considered the SCC in some way.[24] Washington, for example, passed a law requiring electric utility companies to use the IWGSCC's value at a 2.5% discount rate in their resource plans.[25] Illinois has used the SCC to set a value for its zero emissions credits program.[26] Missouri, on the other hand, has actively challenged the IWGSCC's use by federal agencies in a lawsuit filed by Missouri Attorney General Eric Schmitt.[27] This lawsuit sought a preliminary injunction that would prohibit any executive branch officials besides the President from using the IWG's interim SCC value.[28] This challenge was never heard on its merits, as the Court held that Missouri

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[19] Maxine Joselow, *'Seriously flawed': Experts clash over social cost of carbon.* E&E NEWS CLIMATE WIRE (Aug. 24, 2021), https://www.eenews.net/articles/seriously-flawed-experts-clash-over-social-cost-of-carbon/.
[20] *Id.*
[21] *Id.*
[22] *Id.*
[23] INSTITUTE FOR POLICY INTEGRITY, *States Using the SCC*, https://costofcarbon.org/states (last visited Jan. 21, 2022).
[24] *Id.*
[25] Wash. Sen. Bill. 5116 (signed by Gov. Inslee on May 7, 2019).
[26] Future Energy Jobs Bill (SB 2814), 220 ILCS 5/20-135 new, at 135.
[27] *See* Missouri et al. v. Biden et al., No. 4:21-cv-00287-AGF, 2021 WL 3885590 (E.D. Mo. Aug. 31, 2021).
[28] *Id.* at 1.

and the twelve other states bringing the suit lacked standing.[29] Additionally, the Court held that the claims brought in this case were not ripe, noting the considerable legal distance between the adoption of the IWG's interim value and the hypothetical issuance of a future harmful regulation.[30]

As the deadline for the IWG's final SCC looms, additional challenges to its use are likely also around the corner. But applying a monetary value to carbon emissions is an important step to ensure the damages caused to the Earth's climate are no longer ignored. Of the fifty states, twenty-nine require their state administrative agencies to perform cost-benefit analyses before implementing rules, with eleven additional states requiring cost-benefit analysis in certain circumstances.[31] If the cost of carbon emissions is not being factored into these analyses, the efforts to reduce emissions by some states could be completely negated by others choosing to do nothing. As the Climate Clock continues to count down the time before irreversible damage is done to our planet, it becomes more important with each passing second to take steps now to preserve this planet for future generations. The SCC is a tool made by both economists and scientists and is tailored for use by regulatory agencies to accomplish just that. Instead of viewing the IWG's final SCC as overreaching federal regulation, Missouri should consider implementing the final value into its own policymaking as a useful tool to make sure the "Show-Me State" can be seen by future generations.

Edited by Alex Beezley

[29] *Id.* at 7.
[30] *Id.* at 11.
[31] Ballotpedia, *Agency Dynamics: States that require administrative agencies to conduct cost-benefit analysis before implementing rules* (last visited Jan. 21, 2022). https://ballotpedia.org/Agency_dynamics:_States_that_require_administrative_agencies_to_conduct_cost-benefit_analysis_before_implementing_rules.