

April 10, 2025

To: New Jersey Board of Public Utilities

Re: Request for Information in the Matter of Successor Solar Incentive Program Pursuant to P.L. 2021, C.169; In the Matter of Certification of Energy Year 2023 Cost Cap Calculation and Setting ADI Program Megawatt Blocks for Energy Year 2025 (Docket Nos. QO20020184 & QO24020117)

The Institute for Policy Integrity at New York University School of Law (Policy Integrity)¹ respectfully submits this letter on the above-captioned request for information (RFI) from the New Jersey Board of Public Utilities (the Board). Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in administrative law, economics, and public policy.

In the RFI, the Board seeks input on the social cost of carbon value to apply in setting the cost cap calculation made under N.J.S.A. 48:3-87(d).² In particular, the Board requests input on whether to adopt the social cost of carbon value at a 2% discount rate published by the federal Environmental Protection Agency in 2023.³ This letter makes the following points:

- **The Board should apply EPA's social cost of carbon valuations at a 2% discount rate.** EPA's values are based on updated data and modeling, incorporate recommendations from the National Academies of Sciences, and were widely praised by expert peer reviewers. Although EPA under President Trump has indicated its desire to rescind these social cost of carbon valuations, that does not undercut the extensive scientific basis for EPA's values.
- **The Board should continue tracking non-federal social cost of carbon updates and remain open to adopting more updated estimates that may be developed in the future,** including by other states.

¹ This document does not purport to present the views, if any, of New York University School of Law.

² Request for Information in the Matter of Successor Solar Incentive Program Pursuant to P.L. 2021, C.169; In the Matter of Certification of Energy Year 2023 Cost Cap Calculation and Setting ADI Program Megawatt Blocks for Energy Year 2025 Docket Nos. QO20020184 & QO24020117) [hereinafter RFI].

³ *Id.* at 4 (referencing Env't Prot. Agency, Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances (2023) [hereinafter EPA Report]).

Background

Under New Jersey law, the Board must ensure that the cost of specific renewable energy programs not exceed 9% of the total price paid for electricity by all customers.⁴ In calculating this “Cost Cap,” the Board “shall reflect any energy and environmental savings attributable to the . . . program in its calculation,” which “shall include . . . the social cost of carbon dioxide emissions” saved from the program.⁵

The applicable statute gives the Board broad discretion in determining the appropriate social cost of carbon value to apply in this calculation. By law, the Board must use an social cost of carbon value no lower than the central estimate produced by the federal Interagency Working Group on Social Cost of Greenhouse Gases (Interagency Working Group).⁶ However, the statute permits the Board to use a higher social cost of carbon estimate. In its implementing regulations, the Board adopted the Interagency Working Group’s estimates but recognized that it “may elect, through a Board order, to [increase] the social cost of carbon value used based on society’s evolving understanding of the costs imposed on society by global climate change, after a notice and comment proceeding.”⁷

In 2023, EPA published updated social cost of carbon values following public comment and expert peer review.⁸ Shortly after their publication, the Interagency Working Group advised agencies that its own estimates (that the Board currently uses) do not reflect recent “developments in the scientific literature” and advised federal agencies to “use their professional judgment to determine which estimates of the [social cost of carbon] reflect the best available evidence.”⁹ Since then, numerous federal agencies have opted to use EPA’s estimates.¹⁰ Some states¹¹ and foreign countries¹² have also adopted EPA’s estimates.

EPA published its updated climate-damage estimates following peer review and public comment. EPA presents its estimates for each greenhouse gas in ranges using three different discount rates (1.5%, 2%, and 2.5%),¹³ with the 2% estimates as its central values.¹⁴ Although different

⁴ *Id.* at 1 (citing N.J.S.A. 48:3-87(d)).

⁵ N.J.S.A. 48:3-87(d).

⁶ *Id.* The Interagency Working Group on Social Cost of Greenhouse Gases’ latest technical support document is available at Interagency Working Grp. on Soc. Cost of Greenhouse Gases, Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide (2021) [hereinafter 2021 TSD].

⁷ N.J.A.C. 14:8-2.12.

⁸ See EPA Report, *supra* note 3.

⁹ Memorandum from the Interagency Working Group on Social Cost of Greenhouse Gases (Dec. 22, 2023), <https://costofcarbon.org/files/IWG-Memo-12.22.23.pdf>.

¹⁰ Office of Mgmt. & Budget, Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act: Fiscal Year 2023 at 20 (2024), <https://bidenwhitehouse.archives.gov/wp-content/uploads/2025/01/FY23-Benefit-Cost-Report.pdf>.

¹¹ See Vermont Climate Council Unanimously Adopts EPA’s SC-GHG Estimates for Use in Benefit-Cost Analysis of GHG Policy and Rules (2024), <https://costofcarbon.org/states/entry/vermont-climate-council-unanimously-adopts-epas-sc-ghg-estimates-for-use-in-benefit-cost-analysis-of-ghg-policy-and-rules>.

¹² Government of Canada, Social Cost of Greenhouse Gas Emissions (last modified Apr. 20, 2023), <https://www.canada.ca/en/environment-climate-change/services/climate-change/science-research-data/social-cost-ghg.html>.

¹³ EPA Report, *supra* note 3, at 101 tbl.4.1.1.

¹⁴ *Id.* at 69.

revisions work in different directions, on balance, EPA's central social cost of carbon estimates are higher than those from the Interagency Working Group.

In the RFI, the Board recognizes the availability of EPA's updated estimates and requests comment on whether it should adopt them for assessing the Cost Cap.¹⁵

I. The Board Should Adopt EPA's Updated Social Cost of Carbon Estimates

The Board should adopt EPA's updated climate-damage estimates. As detailed below, these estimates are the best available climate-damage values used by a U.S. government agency. While the Interagency Working Group's values were based on the best available science at the time of their development, they have not been updated in over a decade and are now outdated.

A. EPA's Estimates Represent the Best Available Government Climate-Damage Values

For numerous reasons, EPA's updated values are the most robust and comprehensive government climate-damage estimates available.

First, EPA's values rely on much newer studies and data than the Interagency Working Group estimates. As EPA explained, the "climate change literature and the science underlying the economic damage functions have evolved" since the Working Group's last substantive updates in 2013.¹⁶ Whereas the research underlying the Interagency Working Group's damage functions was published in the 1990s and 2000s, many economic studies have since been published.¹⁷ As noted above, the Board may increase its social cost of carbon value "based on society's evolving understanding of the costs imposed on society by global climate change."¹⁸ The following figure illustrates the timeline of economic research on climate impacts and its incorporation into the Interagency Working Group estimates.

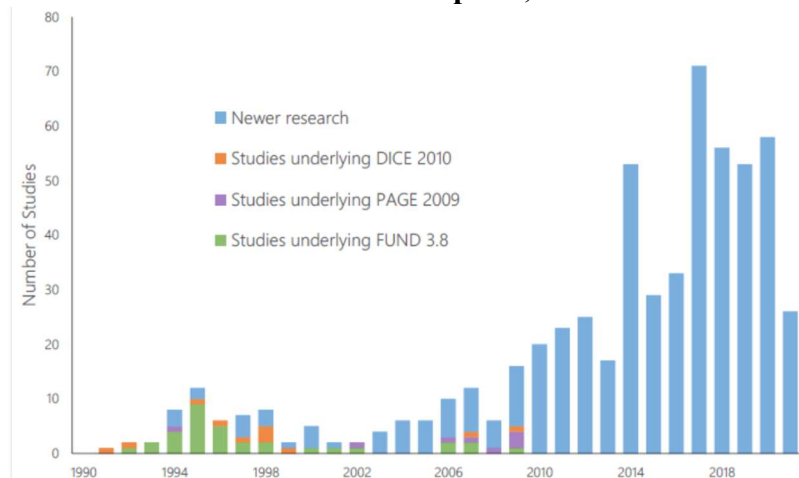
¹⁵ RFI at 4.

¹⁶ EPA Report, *supra* note 3, at 45–46. The Interagency Working Group released estimates of the social cost of methane and the social cost of nitrous oxide in 2016. In 2021, it endorsed its prior valuations for all three greenhouse gases and adjusted them for inflation.

¹⁷ *Id.* at 46 fig.2.3.1.

¹⁸ N.J.A.C. 14:8-2.12.

Research on Climate Impacts, 1990–2021¹⁹



EPA incorporated much of that newer research into its updated damage estimates. For instance, EPA used three state-of-the-art damage functions published within the past several years: one from the University of Chicago’s Climate Impact Lab; one from Resources for the Future and the University of California, Berkeley; and one from economists Dr. Thomas Sterner and Dr. Peter Howard (Policy Integrity’s economics director) that integrates and combines many other published estimates through a meta-analysis.²⁰

Second, EPA’s updated values apply the latest research on discounting and are consistent with best practices on discounting in cost-benefit analysis. In November 2023, the U.S. Office of Management and Budget finalized revisions to Circular A-4 (the centralized guidance for discounting in federal cost-benefit analysis) that endorsed a 2% discount rate.²¹ As that document explains, current economic evidence supports a near-term discount rate of 2% reflecting the social rate of time preference,²² with the discounting rate declining over time.²³ EPA’s approach to discounting is consistent with this guidance.²⁴ It is also consistent with the Interagency Working Group’s recognition that “lower discount rates” are likely appropriate for the social cost

¹⁹ This chart is reproduced from *id.* at 46 fig.2.3.1.

²⁰ *E.g. id.* at 47 (explaining the use of three damage functions published, respectively, in 2023, 2022, and 2017).

²¹ OFFICE OF MGMT. & BUDGET, CIRCULAR A-4, REGULATORY ANALYSIS 77 (2023). In 2025, the Trump administration purported to rescind the 2023 update to Circular A-4, without providing any explanation. Memorandum, for Heads of Executive Departments and Agencies Re: Recission and Reinstatement of Circular A-4 (Feb. 12, 2025). This rescission was unlawful because it did not undergo statutorily-required peer review. *See* Max Sarinsky & Jason A. Schwartz, Inst. for Pol’y Integrity, The Legal Dynamics of Rescinding the Circular A-4 Update (2025), <https://policyintegrity.org/publications/detail/the-legal-dynamics-of-rescinding-the-circular-a-4-update>. In any event, the rescission does not affect the fact that the 2023 update was based on current and widely-accepted economic evidence and methodologies.

²² *Id.* at 76–77.

²³ *Id.* at 80.

²⁴ *See* EPA Report, *supra* note 3, at 62–73 (using near-term discount rate of 2% that declines over time).

of carbon.²⁵ And it is consistent with three separate surveys of expert economists finding a consensus that the discount rate for long-term effects like climate change should be near 2%.²⁶

Third, EPA’s updated values implement the 2017 recommendations from the National Academies of Sciences. In 2017, the National Academies largely endorsed the Interagency Working Group’s approach but offered recommendations for improvement and called for future updates consistent with those recommendations.²⁷ The Interagency Working Group has not substantively updated its valuations since the National Academies report.²⁸ EPA’s update, in contrast, holistically incorporates those recommendations. For instance, EPA developed its climate-damage estimates through a modular approach with “four components . . .—socioeconomics and emissions, climate, damages, and discounting”—following the National Academies’ recommended framework.²⁹

For these reasons and others, expert peer reviewers offered extensive praise for EPA’s estimates.³⁰ These experts lauded EPA’s numbers as a “huge advance,”³¹ a “significant step,”³² and a “much-needed improvement”³³ over the Working Group’s estimates that “advanc[es] our state of knowledge”³⁴ and “represents well the emerging consensus in the literature.”³⁵ Expert reviewers particularly praised EPA for faithfully applying the National Academies’ recommendations.³⁶

Finally, even EPA’s updated values likely remain a conservative underestimate of the full social cost of greenhouse gases. While EPA’s estimates capture numerous important climate impacts and greatly improve upon the Interagency Working Group’s approach, “[t]here are still many important categories of climate impacts and associated damages that are not yet reflected in these estimates due to data and modeling limitations.”³⁷ Moreover, EPA captures certain climate

²⁵ 2021 TSD, *supra* note 6, at 4; *see also id.* at 16–21.

²⁶ Peter Howard & Derek Sylvan, *Wisdom of the Experts: Using Survey Responses to Address Positive and Normative Uncertainties in Climate-Economic Models*, 162 *Climatic Change* 213, 223 (2020) (median discount rate of 2.0% and mean of 2.3%); Moritz A. Drupp et al., *Discounting Disentangled*, 10 *Am. Econ. J.: Econ. Pol’y* 109, 111 (2018) (same); Christian Gollier et al., *The Discounting Premium Puzzle: Survey Evidence from Professional Economists*, 122 *J. Env’t Econ. & Mgmt.*, 2023, at 1, 11 (same). *See also* Peter H. Howard et al., *U.S. Benefit-Cost Analysis Requires Revision*, 380 *Science* 803, 803 (2023) (noting that “more recent economic data” supports a discount rate “close to 2%”).

²⁷ Nat’l Acads. of Scis., Eng’g & Med., *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide* (2017).

²⁸ Rather than address those recommendations, President Trump disbanded the Working Group and withdrew its technical support documents. Exec. Order No. 13,783 §§ 5(b)–(c), 82 *Fed. Reg.* 16,093, 16,095–96 (Mar. 28, 2017).

²⁹ EPA Report, *supra* note 3, at 1.

³⁰ Final Comments Summary Report, External Letter Peer Review of Technical Support Document: Social Cost of Greenhouse Gas (2023).

³¹ *Id.* at 7 (comments of Dr. Maureen Cropper).

³² *Id.* at 9 (comments of Dr. Chris E. Forest)

³³ *Id.* at 10 (comments of Dr. Catherine Louise Kling)

³⁴ *Id.* at 14 (comments of Dr. Wolfram Schlenker).

³⁵ *Id.* at 15 (comments of Dr. Gernot Wagner).

³⁶ *E.g. id.* at 9 (comments of Dr. Forest); *id.* at 14 (comments of Dr. Schlenker).

³⁷ EPA Report, *supra* note 3, at 81.

damages incompletely.³⁸ These omissions do not cast doubt on EPA’s approach, as no method could capture all the harm from climate change.³⁹ Rather, they suggest that EPA’s values are conservative, lower-bound estimates of climate costs.⁴⁰ Accordingly, the Board should apply EPA’s updated social cost of carbon estimates and recognize that they likely continue understate the true costs of greenhouse gas emissions.

For further information on EPA’s updated social cost of carbon estimates, including responses to frequently asked questions, see the attached Policy Integrity report titled “The Social Cost of Greenhouse Gases: An Overview.”⁴¹

B. Recent Federal Actions Do Not Undercut the Scientific Basis for EPA’s Estimates and Should Not Affect the Board’s Consideration

Since taking office, the Trump Administration has withdrawn the Interagency Working Group’s technical support documents⁴² and indicated that it may also withdraw or revise EPA’s values.⁴³ But EPA has not provided any scientific or economic analysis to support reconsidering its valuations, nor produced any evidence or reasoned argument that its valuations were not based on the best available science and economics. Accordingly, these developments do not undercut the scientific basis for EPA’s climate-damage estimates and do not reflect “society’s evolving understanding of the costs imposed on society by global climate change.”⁴⁴ So regardless of political developments at the federal level, the Board should apply those estimates in assessing the Cost Cap.

By adopting EPA’s estimates even if the federal government rescinds them, the Board would follow the precedent set by many states during the first Trump administration. At that time, many states continued to apply the best-available federal social cost of carbon valuations (at that time, the Interagency Working Group estimates) after the federal government walked away from them.⁴⁵ New Jersey was one of those states: In fact, the very statutory provision at issue here,

³⁸ *Id.*

³⁹ EPA’s damage estimates include positive impacts of climate change such as increases in agricultural production in cold-weather areas where crop yields could benefit from warming. They also omit some potentially positive impacts of climate change: For instance, EPA’s estimates omit both increases in tourism (in some regions) and decreases in tourism (in other regions). On the whole, the valuations omit far more harmful effects than beneficial ones. *See, e.g.*, Richard S. J. Tol, *The Economic Effects of Climate Change*, 23 J. Econ. Persps. 29, 37 (2009) (concluding that, in predicting climate change’s future effects, “negative surprises should be more likely than positive surprises”).

⁴⁰ EPA Report, *supra* note 3, at 105 (summarizing that EPA’s values “likely underestimate the marginal damages from greenhouse gas pollution”).

⁴¹ Max Sarinsky & Kurt Weatherford, Inst. for Pol’y Integrity, *The Social Cost of Greenhouse Gases: An Overview—A Primer on EPA’s Updated Values for Policymakers and Practitioners* (2024) (attached).

⁴² Exec. Order 14154 § 6(c), 90 Fed. Reg. 8353 (Jan. 29, 2025) (“The Interagency Working Group on the Social Cost of Greenhouse Gases (IWG), which was established pursuant to Executive Order 13990, is hereby disbanded, and any guidance, instruction, recommendation, or document issued by the IWG is withdrawn as no longer representative of governmental policy.”).

⁴³ EPA Launches Biggest Deregulatory Action in U.S. History (Mar. 12, 2025), <https://www.epa.gov/newsreleases/epa-launches-biggest-deregulatory-action-us-history> (announcing intention of “overhauling Biden-Harris Administration’s ‘Social Cost of Carbon’”).

⁴⁴ N.J.A.C. 14:8-2.12.

⁴⁵ Gov’t Accountability Office, *Social Cost of Carbon: Identifying a Federal Entity to Address the National Academies’ Recommendations Could Strengthen Regulatory Analysis* 6 (2020) (identifying “nine U.S. states that

N.J.S.A. 48:3-87, was enacted during the first Trump administration as part of the Clean Energy Act of 2018.⁴⁶ That Act specifically endorsed the Interagency Working Group’s climate-damage valuations as low-end estimates even though the federal government did not accept those valuations at that time.

In short, the Board should adopt EPA’s estimates regardless of any subsequent developments at the federal level that do not implicate their scientific or economic basis.

II. The Board Should Continue to Track Non-Federal Updates and, if Merited, Adopt Updated Social Cost of Carbon Valuations in the Future

For all the reasons stated above, the Board should adopt EPA’s updated social cost of carbon estimates now. For the foreseeable future, however, it appears unlikely that EPA will continue to update those valuations consistent with the best available science and economics. The Board should continue tracking non-federal social cost of carbon updates and remain open to adopting more updated estimates that may be developed in the future, including by other states. As noted above, EPA’s numbers, though robust, likely undervalue the true cost of climate change due to omitted impacts.⁴⁷

There is indeed precedent for states updating social cost of carbon estimates on their own after federal estimates grew outdated. Most notably, after years of federal inaction in 2020, New York State’s Department of Environmental Conservation developed its own social cost of carbon estimates that updated the Interagency Working Group’s estimates using an updated discount rate of 2%.⁴⁸ By updating the discount rate while leaving the Interagency Working Group’s methodology otherwise intact, the values promulgated by the New York Department of Environmental Conservation became, for some time, the best available governmental estimate of the social cost of carbon. Although New York’s values have now been supplanted by EPA’s 2023 update in that respect, they demonstrate the ability of states to apply updated methodological practices in the face of federal inaction.

As climate science and economics continues to develop over time, the Board should work with other states and be open to adopting updated, science-based social cost of carbon estimates that are developed in the future, subject to notice and comment.

called for using the prior federal estimates in state decision-making”); *see also id.* at 30–38 (detailing how “selected U.S. states have developed and used estimates of the social cost of carbon that are largely based on the federal government’s prior estimates”).

⁴⁶ RFI at 1.

⁴⁷ *See supra* notes 39–40 and accompanying text.

⁴⁸ N.Y. Dep’t of Env’t Conserv., *Establishing a Value of Carbon: Guidelines for Use by State Agencies* (2020, updated 2023), https://extapps.dec.ny.gov/docs/administration_pdf/vocguide23final.pdf.

Respectfully,

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Jason A. Schwartz, Legal Director

Elizabeth B. Stein, State Policy Director

Attachment: Max Sarinsky & Kurt Weatherford, Inst. for Pol’y Integrity, The Social Cost of Greenhouse Gases: An Overview—A Primer on EPA’s Updated Values for Policymakers and Practitioners (2024).