

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Create a  
Consistent Regulatory Framework for the  
Guidance, Planning, and Evaluation of  
Integrated Distributed Energy Resources.

Rulemaking 14-10-003  
(Filed Oct. 2, 2014)

**COMMENTS OF THE INSTITUTE FOR POLICY INTEGRITY ON  
ADMINISTRATIVE LAW JUDGE'S RULING SEEKING RESPONSES TO  
QUESTIONS AND COMMENT ON STAFF AMENDED PROPOSAL ON  
SOCIETAL COST TEST**

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**I. Introduction**

In accordance with Rules 6.2, 1.9, and 1.10 of the California Public Utilities Commission (“Commission”) Rules of Practice and Procedure (“Rules”), the Institute for Policy Integrity at New York University School of Law<sup>1</sup> (“Policy Integrity”) respectfully submits comments on the Administrative Law Judge’s Ruling Seeking Responses to Questions and Comment on Staff Amended Proposal on Societal Cost Test issued in the above captioned proceeding on March 14, 2018. Policy Integrity is a nonpartisan think tank dedicated to improving the quality of government decisionmaking through encouraging a rational approach to environmental and regulatory policymaking that makes use of the best available economic tools. Policy Integrity advocates for sound cost-benefit analysis at every level of government and argues for an unbiased approach to measuring the costs and benefits of environmental, public health, and safety policy. Policy Integrity has previously filed public comments and written reports and articles on issues pertaining to economic analysis of grid modernization and distributed energy resources. Policy Integrity seeks to apply its economic, legal, and policy expertise to help advise

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<sup>1</sup> These comments do not purport to represent the views of New York University School of Law, if any.

the Public Utilities Commission on how to ensure that its societal cost test reflects the best available economic analysis.

## II. Comments

Policy Integrity applauds the Energy Division Staff's Proposal Addendum #2, *Distributed Energy Resource Cost-Effectiveness Evaluation: Further Recommendations on the Societal Cost Test* ("Staff's Addendum #2"), in its endorsement of the use of the Societal Cost Test (SCT) to evaluate the cost-effectiveness of distributed energy resources (DERs). As Policy Integrity articulated in its March 23, 2017 comments and April 6, 2017 reply comments on the initial proposal,<sup>2</sup> use of the SCT will allow the Commission to make investments that provide the greatest benefit to society as a whole. Staff's revisions to the approach in the Staff's Addendum #2 further improve the methodology and will help the Commission more effectively use the Societal Cost Test to maximize social welfare. In response to the Administrative Law Judge's questions in the March 14, 2018 Ruling, Policy Integrity responds and recommends:

- While using the Societal Cost Test as an informational test is a positive step toward maximizing net benefits of DER Programs, the Commission should commit to transitioning toward using the Societal Cost Test as the primary test;
- The Commission should adopt Staff's proposal to revise its nomenclature to distinguish between the "Avoided Cost of Carbon Abatement" and the "Avoided Social Cost of Carbon;"
- The Commission should use the Interagency Working Group's estimates of the Social Cost of Greenhouse Gases to set its "Avoided Social Cost of Carbon," and the high-impact value is a reasonable estimate to adopt;
- Staff's proposed selection of a 3% societal discount rate is reasonable;

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<sup>2</sup> California Public Utilities Commission, Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources, No. R.14-10-003, Comments of the Institute for Policy Integrity on Staff Proposal Recommending a Societal Cost Test (Mar. 23, 2017) [hereinafter "Policy Integrity Comments"]; California Public Utilities Commission, Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources, No. R.14-10-003, Reply Comments of the Institute for Policy Integrity on Staff Proposal Recommending a Societal Cost Test (Apr. 6, 2017) [hereinafter "Policy Integrity Reply Comments"]. These March 23, 2017 Comments and April 6, 2017 Reply Comments are incorporated by reference here.

- The Commission can reasonably use US EPA’s COBRA tool to calculate an interim air quality adder, while it develops a more robust model; and
- The Commission should authorize Staff to continue studying and analyzing improvements to the Distributed Energy Resources Cost Effectiveness Framework.

Question 3: Explain why the Commission should or should not adopt the Societal Cost Test as an additional test to be used initially for information purposes only. If the Commission adopts the Societal Cost Test as an additional test, explain why the Commission should or should not then allow each resource proceeding to determine how (if at all) to use the test in decisionmaking.

- **While Using the Societal Cost Test as an Informational Test is a Good Step Toward Maximizing Net Benefits of DER Programs, the Commission Should Commit to Transitioning Toward Using the Societal Cost Test as the Primary Test**

As articulated in Policy Integrity’s March 23, 2017, using a societal cost test that comprehensively evaluates costs and benefits will help maximize net social benefits.<sup>3</sup> In order to achieve an economically efficient allocation of society’s resources among different demand- and supply-side energy sources by choosing the most socially beneficial investments, the Commission should apply a comprehensive version of the Societal Cost Test to proposed DER programs.

Ideally, the Commission would use the Societal Cost Test as its primary evaluation method. However, Staff’s Addendum #2 articulates a concern that because a comprehensive SCT is new for California, it may result in unexpected outcomes, and should therefore be used as an informational test in tandem with the modified Total Resource Cost and Program Administrator Cost tests for an initial evaluation period of three years.<sup>4</sup> While making the SCT the primary test sooner would be preferable in order to select those projects that will help maximize net benefits, the use of a comprehensive SCT as an informational test is a step in the right direction. The Commission should consider and articulate the criteria now by which it plans to evaluate the effectiveness of the SCT at the end of the three-year evaluation process and commit to adopting it as the primary test at that time if it satisfies the criteria.

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<sup>3</sup> See Policy Integrity Comments, *supra* note 2, at 3–5.

<sup>4</sup> Staff’s Addendum #2 at 4.

Question 4: Explain why the Commission should or should not require all distributed energy resources activities that currently use the TRC and PAC tests to instead use the modified TRC, modified PAC, and Societal Cost tests.

- **The Commission Should Require All Distributed Energy Resources that Currently Use the TRC and PAC Tests to Use the Societal Cost Test**

As discussed above in the answer to Question 3, and in Policy Integrity’s March 23, 2017 comments, the Commission should require distributed energy resources to use the Societal Cost Test because that approach will help ensure that the projects chosen maximize the net social benefits.

Question 5: Explain why the Commission should or should not revise its nomenclature such that the value for the greenhouse gas adder used in the modified TRC and PAC tests is referred to as the “avoided cost of carbon abatement” and the greenhouse gas adder value used in the Societal Cost Test is referred to as the “avoided social cost of carbon.”

- **The Commission Should Revise Its Nomenclature to Distinguish Between the Avoided Cost of Carbon Abatement and the Avoided Social Cost of Carbon**

In order to promote clarity, the Commission should revise its nomenclature as described in Staff’s Addendum #2. In particular, the Commission should refer to the greenhouse gas adder used in the modified TRC and PAC tests as the “avoided cost of carbon abatement” and the greenhouse gas adder value used in the Societal Cost Test as the “avoided social cost of carbon.” As articulated in Policy Integrity’s March 23, 2017 comments and April 6, 2017 reply comments,<sup>5</sup> to the extent the Commission continues to use the TRC and PAC tests, those tests will reflect the marginal abatement cost from the utility perspective. The Societal Cost Test, in contrast, is designed to reflect the value of reduced emissions to society, which is the avoided external damage—in other words the “avoided social cost of carbon.” Using distinct phrasing for these different contexts will help to ensure that these separate concepts are not conflated and that each test’s inputs and outputs are selected and interpreted properly.

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<sup>5</sup> See Policy Integrity Comments, *supra* note 2, at 6–9; Policy Integrity Reply Comments, *supra* note 2, at 4–6; see also Staff’s Addendum #2 at 5–8.

Question 7: Explain why the Commission should or should not adopt the high impact value, developed by the Interagency Working Group on Social Cost of Greenhouse Gases, as the “social cost of carbon.”

- **The High Impact Value, Developed by the Interagency Working Group on Social Cost of Greenhouse Gases, Is a Reasonable Value for the Commission to Adopt as the “Social Cost of Carbon”**

As articulated in Policy Integrity’s March 23, 2017 comments and April 6, 2017 reply comments, the Interagency Working Group’s [“IWG”] 2016 report on the Social Cost of Carbon reflects the best available estimates of the damages associated with each ton of carbon dioxide emitted. The IWG’s estimates are, therefore, the appropriate value to use in the calculations of the Avoided Social Cost of Carbon.

The IWG report presents four sets of estimates of the Social Cost of Carbon, including different discount rates (reflecting different trade-offs between present and future generations) and different assumptions about risk. Staff’s Addendum #2 proposes using the “high impact value” developed by the IWG,<sup>6</sup> which uses a 3% discount rate and “provide[s] information on the marginal damages associated with lower-probability, higher-impact outcomes that would be particularly harmful to society.”<sup>7</sup> Staff’s Addendum #2 describes many climate impacts that are not, or are only partially, included in the IWG models, due to uncertainty.<sup>8</sup>

Furthermore, the IWG notes “The calculations do not take into account the possibility that individuals may have a higher willingness to pay to reduce the likelihood of low-probability, high-impact damages than they do to reduce the likelihood of higher-probability but lower-impact damages with the same expected costs.”<sup>9</sup> The IWG then explains that this higher willingness to pay to reduce the likelihood of low-probability, high-impact damages was a “large

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<sup>6</sup> Staff’s Addendum #2 at 9–12.

<sup>7</sup> INTERAGENCY WORKING GROUP ON SOCIAL COST OF GREENHOUSE GASES, UNITED STATES GOVERNMENT, TECHNICAL SUPPORT DOCUMENT: TECHNICAL UPDATE OF THE SOCIAL COST OF CARBON FOR REGULATORY IMPACT ANALYSIS UNDER EXECUTIVE ORDER 12866 at 15 (2016) [hereinafter “IWG 2016”]; *see also* INTERAGENCY WORKING GROUP ON SOCIAL COST OF CARBON, UNITED STATES GOVERNMENT, TECHNICAL SUPPORT DOCUMENT: SOCIAL COST OF CARBON FOR REGULATORY IMPACT ANALYSIS UNDER EXECUTIVE ORDER 12866 at 3, 25 [hereinafter “IWG 2010”].

<sup>8</sup> *See* Staff Addendum #2 at 9–12; *see also* Richard L. Revesz et al., *Improve Economic Models of Climate Change*, 508 NATURE 173 (2014) (co-authored with Nobel Laureate Kenneth Arrow, among others); PETER HOWARD, OMITTED DAMAGES: WHAT’S MISSING FROM THE SOCIAL COST OF CARBON (2014).

<sup>9</sup> IWG 2010, *supra* note 7, at 30.

motivation” for the “inclusion of the 95<sup>th</sup> percentile [“high value”] estimate.”<sup>10</sup> In its final order, the Commission should explain more fully that its motivation for using the “high impact value” is based, in part, on the desire to reduce the likelihood of low-probability, high-impact damages.

The IWG report “emphasizes the importance and value of including all four SC-CO<sub>2</sub> values” in analyses.<sup>11</sup> So ideally, the Commission would instruct utilities to perform an analysis using the range of IWG assumptions. However, as a number of states have found, it is reasonable to use one set of the IWG’s estimates as a primary evaluation tool for the social cost of carbon, as long as the agency explains the reasons for selecting that estimate as the primary tool (and, to the extent feasible, conducts a sensitivity analysis using the additional values when it seems likely that the estimate chosen could significantly alter the decision).<sup>12</sup> Staff has extensively articulated its concerns about climate change’s lower-probability, higher-impact outcomes that would be particularly harmful to California, as well as the damages omitted from the IWG analysis.<sup>13</sup> The reasons for California to focus on the high impact value in its decisionmaking thus echo the reasons why the IWG included the high impact estimate in its calculations. It is, therefore, appropriate for the Commission to select the IWG’s high-impact value as the primary value for the avoided Social Cost of Carbon in DER analysis.

Question 8: Explain why the Commission should or should not adopt a 3-percent discount rate for the Societal Cost Test.

- **A 3-Percent Discount Rate Is an Appropriate Value to Adopt for the Societal Cost Test**

As described in Policy Integrity’s March 23, 2017 comments and April 6, 2017 reply comments on the original staff proposal, a 3-percent discount rate that reflects consumption tradeoffs is an appropriate value to use for the Societal Cost Test.<sup>14</sup> As noted in Policy Integrity’s

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<sup>10</sup> *Id.*

<sup>11</sup> IWG 2016, *supra* note 7, at 16.

<sup>12</sup> See ILIANA PAUL, PETER HOWARD, & JASON A. SCHWARTZ, THE SOCIAL COST OF GREENHOUSE GASES AND STATE POLICY 9–12 (2017) (describing Washington using the 2.5% discount rate estimate from the IWG, and New York using the 3% discount rate estimate from the IWG, among other examples), *available at* [http://policyintegrity.org/files/publications/SCC\\_State\\_Guidance.pdf](http://policyintegrity.org/files/publications/SCC_State_Guidance.pdf).

<sup>13</sup> See Staff’s Addendum #2 at 9–12.

<sup>14</sup> See Policy Integrity Comments, *supra* note 2, at 17–20; Policy Integrity Reply Comments, *supra* note 2, at 6.

April 6, 2017 reply comments, the project proposals for DERs will be financed primarily through electricity rates for consumers, meaning that a lower, societal discount rate (the federal Office of Management and Budget recommends 3%) is appropriate.<sup>15</sup>

Question 9: Explain why the Commission should or should not use the USEPA COBRA Tool to compute and adopt an Interim Air Quality Adder until a more robust model can be developed. If you believe that another model should be used, explain why and provide a detailed description of how that model should be used instead.

- **The Commission Can Reasonably Use US EPA’s COBRA Tool to Calculate an Interim Air Quality Adder, While It Develops a More Robust Model**

The US EPA’s COBRA tool is a reasonable method to calculate an Interim Air Quality Adder until a more granular method that can capture the locational value of emission reductions from DERs can be developed.<sup>16</sup> For a more detailed analysis of how to monetize local air pollutant reductions from distributed energy resources, including a discussion of other methods currently available and their advantages and limitations, see Policy Integrity’s report, *Valuing Pollution Reductions*.<sup>17</sup>

Question 10: Explain why the Commission should or should not authorize Staff to continue to study and analyze improvements to the distributed energy resources cost effectiveness framework, including the development of a common resource valuation method, and issue reports on its findings and subsequent proposals. Are there additional improvements that should be considered?

- **The Commission Should Authorize Staff to Continue to Study and Analyze Improvements to the Distributed Energy Resources Cost Effectiveness Framework**

The Commission should authorize Staff to continue to study and analyze improvements to the distributed energy resources cost effectiveness framework, as articulated in Staff’s Addendum #2. Two particularly important revisions that Staff mentions are: (1) ensuring that the value that the Commission uses for the Avoided Social Cost of Carbon continues to reflect the

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<sup>15</sup> See OFFICE OF MGMT. & BUDGET, CIRCULAR A-4 at 33–34 (2004).

<sup>16</sup> See Staff’s Addendum #2 at 16 (discussing Staff’s proposal for a future research study to determine a more complex model which can reflect a number of refinements, including more granular geographic data).

<sup>17</sup> JEFFREY SHRADER, BURCIN UNEL, & AVI ZEVIN, VALUING POLLUTION REDUCTIONS, Institute for Policy Integrity Electricity Policy Insights Report (2018), available at [http://policyintegrity.org/files/publications/Valuing\\_Pollution\\_Reductions.pdf](http://policyintegrity.org/files/publications/Valuing_Pollution_Reductions.pdf).

best available science and economics;<sup>18</sup> and (2) developing the Air Quality Adder model to have it more precisely reflect the generation that the distributed energy resources in question will be replacing.<sup>19</sup> See Policy Integrity’s March 23, 2017 comments and April 6, 2017 reply comments, as well as Policy Integrity’s *Valuing Pollution Reductions* report,<sup>20</sup> for more detail on factors to consider as Staff continues developing these evaluation methods.

### **III. Conclusion**

For the foregoing reasons, the Commission should adopt the recommendations in Staff’s Addendum #2 and commit to transitioning toward use of the Societal Cost Test as the primary DER evaluation test.

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Respectfully submitted,

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<sup>18</sup> Staff’s Addendum #2 at 8 (“Staff intends to work with the California Air Resources Board, and other state agencies as appropriate, to ensure that future estimate of the social cost of carbon are based on the most recent evidence and science.”); *see also* Policy Integrity Comments, *supra* note 2, at 10–15.

<sup>19</sup> Staff’s Addendum #2 at 16; *see also* Policy Integrity Comments, *supra* note 2, at 16–17;

<sup>20</sup> JEFFREY SHRADER, BURCIN UNEL, & AVI ZEVIN, VALUING POLLUTION REDUCTIONS, Institute for Policy Integrity Electricity Policy Insights Report (2018), *available at* [http://policyintegrity.org/files/publications/Valuing\\_Pollution\\_Reductions.pdf](http://policyintegrity.org/files/publications/Valuing_Pollution_Reductions.pdf).