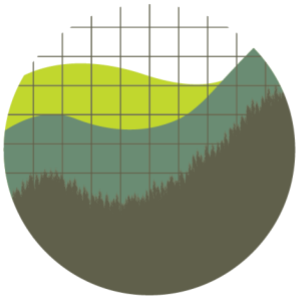

Institute *for*
Policy Integrity
NEW YORK UNIVERSITY SCHOOL OF LAW

May 28, 2019

To: Jesse Way, Cadmus Group, jesse.way@cadmusgroup.com
Chris Kearns, RI Office of Energy Resources, christopher.kearns@energy.ri.gov
Elizabeth Stone, DEM, elizabeth.stone@dem.ri.gov

Re: Rhode Island Carbon Pricing Study

The Institute for Policy Integrity at New York University School of Law[1] ("Policy Integrity") submits these comments on Rhode Island's carbon pricing study, being conducted by the Cadmus Group and Synapse Energy Economics Inc (the "Consultants"). Policy Integrity is a nonpartisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. Policy Integrity has written extensively on the general need to monetize the externalities of greenhouse gases,[2] and the specific role of the social cost of greenhouse gases in state policy.[3]

Rhode Island is undertaking a study to understand what a state carbon pricing scheme would look like, including how it would interact with the state's participation in the Regional Greenhouse Gas Initiative ("RGGI") and the Transportation Climate Initiative ("TCI"). Policy Integrity supports using a carbon price as a tool to reduce greenhouse gas emissions, and in particular supports Rhode Island's exploration of implementing a carbon price that is multisectoral. In order to understand the outcomes of using a carbon price that maximizes economic efficiency, Policy Integrity recommends that the preliminary "low" and "high" values used for the carbon pricing scenarios for the study of $6 and $25, proposed by the

[1] No part of these comments purports to present the views, if any, of New York University.
[2] See e.g. Institute for Policy Integrity comments to FERC on Lamar County Natural Gas Project (Apr. 17, 2020), *available at*: https://policyintegrity.org/projects/update/comments-to-ferc-on-lamar-county-natural-gas-project.
[3] *See* DENISE GRAB ET AL., OPPORTUNITIES FOR VALUING CLIMATE IMPACTS IN U.S. STATE ELECTRICITY POLICY, POLICY INTEGRITY REPORT (April 2019), available at: https://policyintegrity.org/publications/detail/opportunities-for-valuing-climate-impacts-in-u.s.-state-electricity-policy; see also e.g., Institute for Policy Integrity comments to the Colorado Public Utilities Commission on Electricity Rule Changes (Apr. 10, 2020), *available at*: https://policyintegrity.org/projects/update/comments-to-the-colorado-public-utilities-commission-on-electricity-rule-ch.

Consultants, be accompanied by a third scenario that uses the federal Interagency Working Group's Social Cost of Carbon.

Carbon pricing is an important tool to reduce greenhouse gas emissions, as it can help correct a market failure that leads various sectors to over-emit carbon dioxide. That market failure—a "negative externality" from pollution—imposes a cost on third parties that is not taken into account by market participants. As a result, those participants produce more emissions than is optimal from society's perspective. An economy-wide tax or fee on all polluters based on the external marginal cost of carbon dioxide is the first-best way to address this negative externality.

These comments make the following points in support of our recommendation:

1. The Social Cost of Carbon internalizes the damages from carbon dioxide emissions and is therefore an optimal level to use when setting a carbon fee;
2. The Social Cost of Carbon developed by the federal Interagency Working Group on the Social Cost of Greenhouse Gases remains the best available estimates of the net social cost of carbon dioxide emissions; and
3. A number of states are already using the social cost of carbon, so Rhode Island has peers to look to as examples.

I. The Social Cost of Carbon is a readily available metric to internalize the damages from CO_2 emissions

The social cost of carbon ("SCC") is a metric designed to quantify and monetize climate damages, representing the net economic cost of carbon dioxide emissions. In other words, the SCC is a monetary estimate of the damage done by each ton of carbon dioxide that is released into the air. The SCC was developed by the federal government's Interagency Working Group on the Social Cost of Greenhouse Gases ("IWG"), which operated from 2009-2017, and the work of the IWG remains the best source for SCC estimates. The "central" estimate of the IWG SCC for carbon dioxide for emissions occurring in 2020 is **$51 per metric ton**.[4]

A well-designed carbon pricing scheme creates an efficient market that internalizes the externalities of greenhouse gas emissions, which requires that carbon prices reflect the external damages caused by emissions. For this reason, the SCC is an important value to include in Rhode Island's carbon pricing study. The current "low price" and "high price" are both well below the "central" IWG SCC estimate and therefore do not sufficiently capture the true costs of carbon dioxide emissions to society.

Rhode Island is exploring policy impacts other than emissions reductions that can be achieved by setting a specific carbon price, like affordability and use of revenue. The same analysis should be done for a carbon price set at $51 per metric ton. The price of a carbon allowance or tax should be as high as the SCC fully internalizes the harms from emissions

[4] *See* DENISE GRAB ET AL., OPPORTUNITIES FOR VALUING CLIMATE IMPACTS IN U.S. STATE ELECTRICITY POLICY, POLICY INTEGRITY REPORT (April 2019), at 9.

and revenue can be used to mitigate the effects of such a high carbon price on Rhode Island residents and consumers.

In addition, a carbon price based on the SCC can be compatible with Rhode Island's participation in RGGI—or the TCI beginning in 2022. For example, Rhode Island's state-level effort to price carbon for electricity transactions should use the SCC minus the RGGI price of carbon to find a net value of carbon emissions. Eventually, Rhode Island would have to make a similar modification for the transportation sector, but no such modification would be necessary for putting a price on emissions from small generators or other sectors that are not covered by RGGI and TCI.

Finally, a cost of carbon based on the SCC can be used either as a standalone carbon fee or as the base cost of an allowance in a cap-and-trade program.[5]

II. The SCC developed by the Interagency Working Group, last updated in 2016, remains the best available set of estimates

The federal government's Interagency Working Group on the Social Cost of Greenhouse Gases (IWG), which operated from 2009-2017, remains the best available source for Social Cost of Carbon estimates. The IWG developed its estimates using peer-reviewed science and economics from the three leading models of damages from climate change, valuing the stream of expected future damages from each ton of carbon dioxide emissions under different discount rate and risk scenarios. The IWG's methodology, and why its estimates are the best available values for the SCC, are discussed in more detail in the Institute for Policy Integrity's report *The Social Cost of Greenhouse Gases and State Policy*.[6]

Despite remaining the best available estimates, decisionmakers should recognize that the IWG's Social Cost of Carbon of $51 per metric ton of carbon dioxide[7] is really a lower bound. Many significant climate impacts identified by the Intergovernmental Panel on Climate Change are difficult to quantify and so have been omitted from the IWG estimates. Effects such as increased fire risk, slower economic growth, and large-scale migration are all unaccounted for, despite their potential to cause large economic losses. So, policymakers

[5] See e.g. Institute for Policy Integrity comments to the California Air Resources Board on Its Cap-and-Trade Program (Oct. 27, 2017) (recommending that California set its allowance price ceiling at least as high as the SCC).

[6] ILIANA PAUL, PETER HOWARD & JASON SCHWARTZ, INST. FOR POL'Y INTEGRITY, THE SOCIAL COST OF GREENHOUSE GASES AND STATE POLICY: A FREQUENTLY ASKED QUESTIONS GUIDE (2017), https://policyintegrity.org/files/publications/SCC_State_Guidance.pdf [hereinafter POLICY INTEGRITY, SOCIAL COST OF GHGS IN STATE POLICY FAQ].

[7] INTERAGENCY WORKING GRP. ON SOC. COST OF GREENHOUSE GASES, TECHNICAL SUPPORT DOCUMENT: TECHNICAL UPDATE OF THE SOCIAL COST OF CARBON FOR REGULATORY IMPACT ANALYSIS UNDER EXECUTIVE ORDER 12,866, at 4 tbl.2 (2016) *available at* https://www.obamawhitehouse.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf.

should account for these omissions by treating the Social Cost of Carbon figures presented within this report as underestimates.[8]

III. A number of other states are already using the SCC

A number of other states are using, or have explored using, the SCC in state policy, and Rhode Island can look to them as examples. These states include: California, Colorado, Illinois, Maine, Maryland, Minnesota, Nevada, New York, Virginia, and Washington State. While many of these states primarily use the SCC in electricity policy, California and Washington State both use the SCC in other contexts.

All of these above-listed states make use of the federal IWG SCC estimates. Some states, such as California and Washington State, take a conservative approach and therefore use higher SCC estimates.[9] Many other states, like Illinois and Nevada, use the so-called "central" estimate.[10] Because Rhode Island has 400 miles of coast line, it may want to reflect its particular vulnerabilities to climate change by using a high-end estimate to price emissions. Policy Integrity's attached comments to the California Air Resources Board includes a more thorough explanation of what states need to consider in selecting a particular SCC estimate.

More information on how each state uses the SCC and what estimate or range of estimates they use can be found on Policy Integrity's CostOfCarbon.org website.

Respectfully submitted,

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Attachments:

1. Paul et al., The Social Cost of Greenhouse Gases and State Policy, Policy Integrity Report (Oct. 2017)
2. Grab et al., Opportunities for Valuing Climate Impacts in U.S. State Electricity Policy, Policy Integrity Report (Apr. 2019)
3. Policy Integrity Comments to the California Air Resources Board on the Draft of the 2030 Target Scoping Plan Update (Dec. 2016)

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[8] *See* INST. FOR POL'Y INTEGRITY, A LOWER BOUND: WHY THE SOCIAL COST OF CARBON DOES NOT CAPTURE CRITICAL CLIMATE DAMAGES AND WHAT THAT MEANS FOR POLICYMAKERS (2019), https://policyintegrity.org/files/publications/Lower_Bound_Issue_Brief.pdf.

[9] *See* http://costofcarbon.org/ (California uses the 3% central estimate and the "high impact" estimate of approximately $123/metric ton CO2 in its value of distributed energy resources proceeding; Washington State recommends utilities use the 2.5% discount rate estimate of approximately $78/metric ton CO2).

[10] *See* http://costofcarbon.org/ for more details.