

February 14, 2018

Before the Public Utilities Commission of the State of Colorado

Proceeding No. 17M-0694E

In the Matter of the Commission's Review of its Rules Governing Electric Resource Planning, Implementing Colorado's Renewable Energy Standard, and Enabling New Technology Integration

**Response Comments from
the Institute for Policy Integrity at New York University School of Law**

The Institute for Policy Integrity at New York University School of Law¹ submits these response comments in the matter of the Commission's review of its rules governing electric resource planning and other issues. To summarize our initial comments, Policy Integrity proposes that the Commission should require utilities, in their electric resource plans, to value greenhouse gas emissions using estimates that quantify, to the extent possible, the full social and environmental externalities, based on the best available data and best economic practices.

Response to the Public Service Company's Faulty Arguments on the Social Cost of Carbon

The Public Service Company repeats and expands on several faulty arguments it has previously offered against applying the social cost of carbon to electricity resource planning. The Commission has rejected similar arguments before, and the Commission should again reject these arguments and instead enshrine in its electric resource planning regulations its Decision No. C17-0316 with respect to using the social cost of carbon.

Public Service argues that the social cost of carbon is "inherently uncertain." As explained in Policy Integrity's initial comments, some degree of uncertainty does not excuse complete inaction. The U.S. Court of Appeals for the Ninth Circuit explained that "while the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero."² Uncertainty is *not* a reason to abandon the social cost of greenhouse gas methodologies; quite the contrary, uncertainty supports higher estimates of the social cost of greenhouse gases, because most uncertainties regarding climate change entail tipping points, catastrophic risks, and unknown unknowns about the damages of climate change. Because the key uncertainties of climate change include the risk of irreversible catastrophes, applying an options value framework to the regulatory context strengthens the case for ambitious regulatory action to reduce greenhouse gas emissions. There are numerous well-established, rigorous analytical tools available to characterize and quantitatively assess uncertainty, such as Monte Carlo simulations, and the Interagency Working Group's social cost of greenhouse gas protocol incorporates those tools.

Public Service next argues that it was "arbitrary" to pick one estimate from the Interagency Working Group's "very wide range of values." As already explained in our initial comments, the Interagency Working Group's range of four estimates is not all that wide (the mean estimates at three different discount rates range from \$13 to \$64 per ton for year 2022 emissions in 2007\$, with a fourth sensitivity estimate calculated at the 95th percentile of \$129), and multiple states and federal agencies have had no trouble either using the full range or selecting the Interagency Working Group's "central" value (\$43 per ton for year 2022 emissions, in 2007\$). Focusing on "central" value is hardly an arbitrary choice, as it reflects a considered determination by the federal government's leading experts about what the appropriate discount rate is (namely, 3%).

Public Service also complains that the Interagency Working Group was disbanded. As our initial comments explained, the unfortunate disbandment of the Interagency Working Group in no way puts

¹ No part of these comments purports to present the views, if any, of New York University. Note that while Policy Integrity is based at New York University, our legal director, Jason Schwartz, lives and works in Denver, Colorado.

² *Center for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1200 (9th Cir. 2008).

into question the analytical rigor of its methodology. The Interagency Working Group's estimates continue to reflect the most thorough effort of the federal government to date to use the best science and the best economic models to estimate the costs of carbon. Executive Order 13,783 does not cancel out the fact that the National Academies of Sciences, the Government Accountability Office, and several federal courts have endorsed the Interagency Working Group's work. In fact, some federal agencies have continued, as recently as August 2017, to use the Interagency Working Group's 2016 estimates.³

Public Service also offered a wholly insufficient alternative to requiring use of the social cost of carbon; Public Service would instead prefer to include a "brief, qualitative, vision-oriented discussion" of how carbon dioxide emissions align with state and national climate targets. Such an approach would fail to achieve any of the goals of applying the social cost of carbon: namely, giving the Commission the kind of informational context necessary to make decisions that enhance the social welfare of Colorado's ratepayers, giving Colorado's citizens the kind of informational context necessary to understand the climate consequences of electric resource plans, and encouraging reciprocal use by other states and nations of the social cost of carbon in ways that will directly benefit Colorado's citizens. Please refer back to our initial comments for more details on why monetization of externalities advances those goals.

Tellingly, even while Public Service is now trying to discredit use of the social cost of carbon in Colorado, Public Service's parent company Xcel Energy has been praising Minnesota's use of the social cost of carbon. Specifically, on February 2, 2018, Xcel Energy filed before the Minnesota Public Utility Commission a response to a petition for reconsideration of a decision on environmental and social costs.⁴ The Minnesota Commission has adapted the Interagency Working Group's methodology to generate its own estimates of the social cost of carbon to use in electricity planning. An industrial group filed a petition objecting to that determination. In response, Xcel Energy supported use of the social cost of carbon in Minnesota. Xcel argued that the Interagency Working Group's values are "a reasonable and best available starting point for developing a new range of carbon dioxide environmental costs" for use in Minnesota energy policy. Xcel acknowledged that some uncertainty around the estimates is "inevitable," but observed that the goal should "not [be] perfection but a reasonable and best available estimate to take these damages into account in resource selection." The Colorado Commission should follow the advice of Xcel Energy, and so reject the objections of the Public Service Company.

Support for WRA and Colorado Energy Office's Proposals on Greenhouse Gases and Peer Review

Western Resource Advocates (WRA) and the Colorado Energy Office both propose adding "methane" to § 3604's list of projected emissions that must be described. Policy Integrity supports that addition, and would further suggest that this requirement to describe emissions could be another place where the language we propose—to value the externalities of emissions—could be added as well.

Our language on valuing the externalities of emissions could also be added to WRA's proposed new § 3604(j) on defining input assumptions including the externality costs of carbon dioxide emissions, or to Colorado Energy Office's similar proposal for § 3604(q). Policy Integrity supports those proposals but

³ See Bureau of Ocean Energy Mgmt., Draft Env'tl. Impact Statement: Liberty Development Project at 3-129, 4-246 (Aug. 2017), *available at* <https://cdxnodengn.epa.gov/cdx-enepa-ll/public/action/eis/details?eisId=236901> (calling the global social cost of carbon estimates developed in 2016 by the Interagency Working Group "a useful measure" and applying them to analyze the consequences of offshore oil and gas drilling).

⁴ Xcel Energy, Response to Petition for Reconsideration Investigation into Environmental and Socioeconomic Costs, Docket No. E999/CI-14-643, Feb. 2, 2018, *available at* <https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPop&documentId={B0595861-0000-CA11-8965-2EB04B3FB6C7}&documentTitle=20182-139736-01>.

suggests they should be amended slightly to refer to the externality costs of greenhouse gases in general, and not just carbon dioxide.

WRA and Colorado Energy Office both propose § 3604(p), requiring peer-reviewed studies of modeling. Policy Integrity supports this language and suggests that our recommendation—requiring that externalities must be valued based on the best available data, best economic practices, peer-reviewed methodologies, and consensus-driven inputs—would be complementary to these proposals.

Support for CIEA's Proposal on Costs and Benefits

The Colorado Independent Energy Association proposes to add § 3604(m), requiring an assessment of the costs and benefits of retirements. Policy Integrity supports this proposal and suggests that our recommended language—that costs and benefits should be valued based on the best available data, best economic practices, peer-reviewed methodologies, and consensus-driven inputs—should apply to such a requirement as well.

Support for Boulder's Alternative Analysis of the Benefits and Costs of 100% Renewables

The City of Boulder proposes in § 3604(k) requiring an assessment of the benefits and costs of a resource plan that would target 100% renewable energy. Policy Integrity supports this proposal and suggests that our recommended language—that costs and benefits should be valued based on the best available data, best economic practices, peer-reviewed methodologies, and consensus-driven inputs—should apply to such a requirement as well.

Sincerely,

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