



Institute *for*  
**Policy Integrity**

NEW YORK UNIVERSITY SCHOOL OF LAW

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**Via Electronic Filing System**

**Re:** REVIEW OF ENERGY EFFICIENCY PLANNING AND COST REVIEW  
[199 IAC CHAPTER 35]

**Docket no.:** RMU-2016-0018

The Institute for Policy Integrity at New York University School of Law<sup>1</sup> (“Policy Integrity”) respectfully submits the following comments on the Iowa Utilities Board (the “Board”) proceeding, “Review of Energy Efficiency Planning and Cost Review.”<sup>2</sup> Policy Integrity is a non-partisan 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 regularly engages in administrative and legal proceedings to comment on environmental, energy, and economic issues, such as the economic and legal basis for pricing greenhouse gas emissions.

The Board’s August 8, 2016 Order Requesting Stakeholder Comment on Potential Rule Changes initiated review of the 199 Iowa Administrative Code (“IAC”) Chapter 35 Energy Efficiency rule. The ensuing process involved several rounds of comments, a hearing, and two workshops. Meanwhile, in May 2018, Iowa enacted SF 2311, which amended Iowa Code chapter 476. The current rulemaking proceeding, which the Board initiated with its January 23, 2019 Order Commencing Rule Making, deals with issues arising from both the ongoing review of the Chapter 35 energy efficiency rule and legislative changes to Iowa Code chapter 476.

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<sup>1</sup> No part of this document purports to present New York University School of Law’s views, if any.

<sup>2</sup> Docket no. RMU-2016-0018

These comments respond to the Board’s most recent Order Requesting Additional Comments, issued on May 8, 2019. In that Order the Board sought comments on the definition of “non-energy benefits” and whether this term should be incorporated into the definitions of “societal test,” “total resource cost test,” “participant test,” and “utility test”—tests that investor owned utilities must employ when assessing the cost-effectiveness of their Energy Efficiency Plans.<sup>3</sup> The definition of non-energy benefits currently being considered was initially proposed by Black Hills/Iowa Gas Utility Company, LLC d/b/a Black Hills Energy (“Black Hills”):

“Non-Energy Benefits” are the many and diverse benefits produced by energy efficiency in addition to energy and demand savings. The beneficiaries of these benefits can be utility systems, participants and society.<sup>4</sup>

Black Hills noted when proposing this definition that it “would be applicable to . . . water savings from low-flow water measures.”<sup>5</sup> Black Hills also pointed out at the April 26, 2019 workshop that the Iowa Technical Resource Manual already identifies such water savings as a recognized category of non-energy benefits of an energy efficiency program.<sup>6</sup> However, water savings is just one of numerous categories of non-energy benefits that deserve consideration by utilities.

Policy Integrity’s comments make the following points.

1. The Board should adopt Black Hills’ suggestion to amend the definitions of “societal test,” “total resource cost test,” “participant test,” and “utility test,” to include “non-energy benefits”;
2. The Board should adopt the proposed definition of “non-energy benefits”; and
3. The Board should direct the Administrator of the Iowa Technical Reference Manual to review and update it so that utilities’ cost-effectiveness analyses better capture the full value of “non-energy benefits.”

We explain each of these points below.

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<sup>3</sup> Iowa Admin. Code r. 199-35.8(476) (current rule); In re: Review of Energy Efficiency Planning and Cost Review Rules [199 IAC chapter 35], Order Commencing Rule Making, Attachment Item 1, §§ 35.2, 35.5(4) (Jan. 23, 2019) [hereinafter “Replacement Rule”].

<sup>4</sup> In re: Review of Energy Efficiency Planning and Cost Review Rules [199 IAC chapter 35], Comments of Black Hills 3 (Feb. 5, 2019).

<sup>5</sup> *Id.* at 2.

<sup>6</sup> In re: Review of Energy Efficiency Planning and Cost Review Rules [199 IAC chapter 35], Workshop Transcript 42-45 (Apr. 26, 2019).

**I. The Board should amend the definitions of “societal test,” “total resource cost test,” and “participant test” to include “non-energy benefits”**

A complete and accurate accounting of an energy efficiency program or portfolio’s cost-effectiveness should consider all the benefits of that program that are significant and quantifiable, including those that accrue to utilities, ratepayers, and society as a whole. Thus, as Iowa’s utilities and the Board have recognized, when estimating the cost-effectiveness of energy efficiency measures utilities should count not only the benefits of avoiding energy-related costs, but also various non-energy benefits. The Board can direct utilities to do this by adopting Black Hills’ recommendation and including “non-energy benefits” in the definitions of the cost-effectiveness tests prescribed by Iowa regulations, *see* 199 IAC 35.2(476) (defining tests).<sup>7</sup> Policy Integrity encourages the Board to do so, as failing to count significant non-energy benefits would invite utilities to underspend on energy efficiency compared to the socially desirable level, and do so at cost to public health and welfare.

Taking this step would put Iowa in step with other states. A number of states, including states that are leaders in energy efficiency such as Massachusetts and Oregon,<sup>8</sup> incorporate non-energy benefits into the tests they use to screen proposed energy efficiency programs and portfolios.<sup>9</sup> Expressly incorporating non-energy benefits into the definition of the total resource cost test is especially important. Doing so makes clear that these benefits should neither be considered an afterthought, nor be treated as a category that belongs only among items estimated by the societal test, but recognized as significant and measurable effects of energy efficiency programs that utilities must not ignore.

**II. The Board should adopt the proposed definition of non-energy benefits**

Iowa utilities must analyze the cost-effectiveness of proposed energy efficiency programs.<sup>10</sup> If the Board adopts Black Hills’ proposal to incorporate “non-energy benefits”

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<sup>7</sup> Black Hills comments at 3.

<sup>8</sup> *See* Mass. D.P.U., Order Approving Revised Energy Efficiency Guidelines, Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines §§ 3.4.3, 3.4.4.1(b) (Jan. 13, 2013), <https://perma.cc/5X64-U326>; Oregon Pub. Util. Comm’n, Order No. 94-590, In the Matter of the Investigation into the Calculation and Use of Cost-Effectiveness Levels for Conservation 15 (Apr. 6, 1994), <https://perma.cc/3PHR-X37D>.

<sup>9</sup> *See* Tim Woolf et al., Nat’l Efficiency Screening Project, Database of State Efficiency Screening Practices (DSESP), <https://nationalefficiencyscreening.org/state-database-dsesp/> (accessed May 29, 2019) (listing tests and factors used in 30 states).

<sup>10</sup> 199 IAC 35.8(e)(1) (current rule); Replacement Rule § 35.5(4).

into the definitions of these tests, adding the proposed definition of “non-energy benefits” would provide Iowa’s utilities with a more comprehensive mandate to estimate all of the significant non-energy benefits resulting from their energy efficiency programs.

Dozens of other states already require utilities to consider non-energy benefits in their energy efficiency planning and programs. Although researchers and some pioneering states examined the non-energy benefits of energy efficiency programs as early as the 1980s,<sup>11</sup> it was only in the mid-2000s that a growing number of states began incorporating those benefits into cost-effectiveness testing requirements.<sup>12</sup> This turn reflected a self-reinforcing pattern of accumulating research, improving methodologies, and further adoption by regulators and utilities that provided still more data for new research.<sup>13</sup> Today, aided by access to resources like the National Efficiency Screening Project’s *National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources*,<sup>14</sup> the U.S. Environmental Protection Agency’s *Quantifying the Multiple Benefits of Energy Efficiency and Renewable Energy a Guide for State and Local Governments*,<sup>15</sup> the Department of Energy’s energy efficiency regulations for appliances,<sup>16</sup> and the latest version of the *California Standard Practice Manual Economic Analysis of Demand-Side Programs and Projects*,<sup>17</sup> at least 30 states direct their utilities to consider non-energy benefits when

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<sup>11</sup> See, e.g., California Public Utilities Commission, *Standard Practice for Cost-Benefit Analysis of Conservation and Load Management Programs* (1983) (prescribing tests and enumerating non-energy benefits to incorporate into analysis).

<sup>12</sup> See Lisa A. Skumatz, *Non-Energy Benefits / Non-Energy Impacts (NEBs/NEIs) and Their Role and Values in Cost-Effectiveness Tests: State of Maryland; Final Report 14-18* (2014), <https://perma.cc/GG4G-JDBT> (describing stages of research, development, and adoption of approaches to non-energy benefit estimation by states).

<sup>13</sup> Lisa A. Skumatz, *Efficiency Programs’ Non-Energy Benefits: How States Are Finally Making Progress in Reducing Bias in Cost-Effectiveness Tests*, 28 *Electricity J.* 96, 98-99 (2015) (describing “chicken and egg” process of implementation, data generation, and further research); see also e.g., Bruce Tonn et al., *Oak Ridge Nat’l Lab., Health and Household-Related Benefits Attributable to the Weatherization Assistance Program* (2014), <https://perma.cc/TUL7-VT8H> (deriving monetized estimates of public health and productivity effects from survey data and economic analyses).

<sup>14</sup> Tim Woolf et al., *Nat’l Efficiency Screening Project, National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources* (2017), <https://perma.cc/6HHW-VBLZ>.

<sup>15</sup> EPA, *Quantifying the Multiple Benefits of Energy Efficiency and Renewable Energy a Guide for State and Local Governments*, 2018 ed., at 4-61, <https://perma.cc/LFE8-RLGW>.

<sup>16</sup> Energy Conservation Program: Energy Conservation Standards for Commercial Refrigeration Equipment; Final Rule, 79 Fed. Reg. 17,726 (Mar. 28, 2014) (incorporating Social Cost of Carbon into estimate of rule’s value).

<sup>17</sup> *California Standard Practice Manual Economic Analysis of Demand-Side Programs and Projects* (2011), <https://perma.cc/G3BT-65Z2>.

estimating the outcomes of proposed energy efficiency programs.<sup>18</sup> Iowa can and should make use of these resources and of the examples provided by other states' approaches to valuing the non-energy benefits of energy efficiency.

The proposed definition allows the Board and other stakeholders to subsequently enumerate and periodically add to the list of “many and diverse benefits” of energy efficiency programs. The next section highlights two especially important categories of non-energy benefits, and identifies tools that are currently available for incorporating them into cost-effectiveness tests. Because codifying the proposed definition of non-energy benefits would lay the regulatory groundwork for valuing a host of readily quantifiable benefits of energy efficiency programs, including the avoided emissions discussed below, Policy Integrity encourages the Board to do so.

### **III. The Board should direct the Administrator of the Iowa Technical Reference Manual to review and update it so that utilities' cost-effectiveness analyses can better capture the value of “non-energy benefits”**

Iowa's Technical Reference Manual provides utilities with “standard and defensible protocols for calculating savings” from “energy efficiency offerings.”<sup>19</sup> The Board ordered the TRM's development in the expectation that “a statewide TRM would improve precision, ensure more rigorous and frequent review of the savings algorithms used to estimate measure and program savings, and provide structure for program planning and goal setting.”<sup>20</sup> The TRM is, in short, the document that translates economic principles and evidence into what Iowa's utilities use to actually calculate savings from energy efficiency.

Because the TRM is critical to utilities' energy efficiency savings calculations, it is also critical to the estimation of non-energy benefits, which include but are not limited to: productivity, comfort, satisfaction of program participants, avoided environmental compliance costs, avoided credit collection costs, increased reliability, reduced risk for utilities, avoided environmental and public health impacts, economic development, and employment effects. As such, the Board should direct the TRM Administrator to review the current version of the TRM and identify where changes and additions are necessary to more fully and accurately capture the value of non-energy benefits—and, in particular,

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<sup>18</sup> See Tim Woolf et al., Nat'l Efficiency Screening Project, Database of State Efficiency Screening Practices (DSESP), <https://nationalefficiencyscreening.org/state-database-dsesp/> (accessed May 29, 2019) (listing tests and factors used in 30 states).

<sup>19</sup> Iowa Department of Commerce—Utilities Board, Order Regarding Implementation of Technical Reference Manual, In re: Interstate Power and Light Company, MidAmerican Energy Company, and Black Hills/Iowa Gas Utility Company, LLC d/b/a Black Hills Energy 2 (Mar. 22, 2017), <https://perma.cc/7CH6-6S3Z>.

<sup>20</sup> *Id.* at 1.

assign values to avoided emissions of greenhouse gases and ambient air pollutants. This review should take its cue both from the definitions discussed in sections I and II of these comments and from the growing list of tools, research, and resources that are available for the purpose of developing Iowa-specific estimates of the value of energy efficiency.<sup>21</sup> It should also be re-conducted periodically to ensure that all relevant benefits are captured and that the quantification methods used to estimate their value are state-of-the-art.

To prescribe how utilities should monetize the benefits of avoiding emissions of greenhouse gas and ambient air pollution, the TRM can draw on several existing tools. The “Social Cost of Carbon” metric developed by the federal Interagency Working Group is the best available tool for valuing avoided damages from each additional unit of greenhouse gas emissions.<sup>22</sup> Though the Social Cost of Carbon was first developed for use by federal agencies in rulemakings, a number of states now employ it when making decisions about electricity policy and investments.<sup>23</sup>

Similarly, there are many tools available for valuing the avoidance of damages from ambient air pollutants. EPA has published guidance on how utilities can estimate these benefits and has created the Environmental Benefits Mapping and Analysis Program (BenMAP) tool (and others) to support such efforts.<sup>24</sup>

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<sup>21</sup> Cf. Iowa Energy Efficiency Statewide Technical Reference Manual; Volume 1: Overview and User Guide 19 (2017) (characterizing the “best data” as “Iowa-specific information”).

<sup>22</sup> The Interagency Working Group’s analysis provides specific estimates for the costs of emitting units of carbon dioxide, methane, and nitrous oxide. See Interagency Working Grp. on Social 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 (2016), <https://perma.cc/SGT9-ME9F>. For explanations of why the Social Cost of Carbon is the best available metric, see Richard Revesz et al., *Best Cost Estimate of Greenhouse Gases*, 357 Science 655 (2017); Richard L. Revesz et al., *Global Warming: Improve Economic Models of Climate Change*, 508 Nature 173 (2014); Michael Greenstone et al., *Developing a Social Cost of Carbon for U.S. Regulatory Analysis: A Methodology and Interpretation*, 7 Rev. Envtl. Econ. & Pol’y 23, 42 (2013).

<sup>23</sup> See Denise Grab, Iliana Paul, Kate Fritz, Opportunities for Valuing Climate Impacts in U.S. State Electricity Policy, Institute for Policy Integrity (April 2019), <https://policyintegrity.org/publications/detail/opportunities-for-valuing-climate-impacts-in-u.s.-state-electricity-policy>; 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](https://policyintegrity.org/files/publications/SCC_State_Guidance.pdf).

<sup>24</sup> EPA, Environmental Benefits Mapping and Analysis Program - Community Edition (BenMAP-CE), <https://www.epa.gov/benmap> (accessed June 3, 2019); see also EPA Guide for State and Local Governments, *supra* note 15; EPA, Quantifying the Health and Economic Benefits of Energy Efficiency and Renewable Energy Policies, <https://www.epa.gov/statelocalenergy/quantifying-health-and-economic-benefits-energy-efficiency-and-renewable-energy> (accessed June 3, 2019). For a discussion of EPA’s various methods and tools for estimating the value of avoided emissions, see Jeffrey Shrader, Burcin Unel, Avi Zevin, Valuing

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In conclusion, Policy Integrity encourages the Board to adopt Black Hills' proposals to add a definition of "non-energy benefits" and to include mention of that term in each cost-effectiveness test used to screen energy efficiency programs. We also encourage the Board to treat this as a first step and to follow it by developing, adopting, and refining measures of non-energy benefits, especially estimates of the value of avoiding emissions of greenhouse gases and ambient air pollutants.

Respectfully submitted,

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Pollution Reductions: How to Monetize Greenhouse Gas and Local Air Pollutant Reductions from Distributed Energy Resources, Institute for Policy Integrity (March 23, 2018),  
<https://policyintegrity.org/publications/detail/valuing-pollution-reductions>.