

**Request for Comments  
August 22, 2017**

**RE: In the Matter of Establishing an Updated Estimate of the Costs of Future Carbon Dioxide Regulation on Electricity Generation Under Minn. Stat. § 216H.06**  
Docket No. E999/DI-17-53, Docket No. E999/CI-07-1199

The Minnesota Pollution Control Agency (MPCA) and the Minnesota Department of Commerce, Division of Energy Resources (DOC) (together, the Agencies) invite comments on the range of cost estimates for the future cost of carbon dioxide (CO<sub>2</sub>) regulation on electricity generation. To ensure consideration, written comments must be received by:

**4:30 p.m. on September 22, 2017.**

Please file comments under Docket No. E999/CI-17-53 using the eDockets system at <https://www.edockets.state.mn.us/>.

Because the Minnesota Public Utilities Commission (Commission) is not required to provide an additional opportunity for interested parties to provide written comments after the final recommendation to the Commission has been submitted, the Agencies encourage those who are interested in commenting to do so in response to this notice.

## **BACKGROUND**

The Commission's August 5, 2016 *Order Establishing 2016 and 2017 Estimate of Future Carbon Dioxide Regulation Costs* determined the following:

1. For 2016 and 2017 the Commission maintains its estimate of the range of likely costs of carbon dioxide (CO<sub>2</sub>) regulation at between \$9 and \$34 per ton of CO<sub>2</sub>.
2. Utilities shall begin applying the above range of CO<sub>2</sub> values in their resource planning as of 2022.

## **TOPICS OPEN FOR COMMENT**

- What approaches could be used within the next few months to develop updated regulatory cost value ranges for CO<sub>2</sub> emissions?
  - If existing carbon trading markets are used as a reference, should only markets located in the U.S./North America be considered or should all global values be considered?
- Given the United States Supreme Court's stay of the Clean Power Plan implementation and the United States Environmental Protection Agency's (USEPA) stated intention to replace the Clean Power Plan as well as other considerations, what is a reasonable date (year) in which utilities can be expected to incur regulatory CO<sub>2</sub> emission costs?

- Is there a basis for the Commission to re-assess its decision to apply only the regulatory cost value or the externality value, but not both, to emissions in a given planning year? If so, please provide the basis.
- If there is a basis for the Commission to re-assess how the regulatory cost value and the externality value ranges are applied, what options should the Commission consider?

## ADDITIONAL BACKGROUND

Minn. Stat. § 216H.06 requires the Minnesota Public Utilities Commission (Commission) to update annually an estimate of the likely range of costs of future carbon dioxide regulation on electricity generation. The estimate must be used in all electricity generation resource planning and acquisition proceedings. The annual updates of the estimate must be made by the Commission following informal proceedings conducted by the Commissioners of the DOC and MPCA that allow interested parties to submit comments.

As noted above, the current estimate was set in the Commission’s August 5, 2016 Order as follows:

1. For 2016 and 2017 the Commission maintains its estimate of the range of likely costs of carbon dioxide (CO<sub>2</sub>) regulation at between \$9 and \$34 per ton of CO<sub>2</sub>.
2. Utilities shall begin applying the above range of CO<sub>2</sub> values in their resource planning as of 2022.

### *ESTIMATING THE LIKELY RANGE OF COST OF FUTURE CO<sub>2</sub> REGULATION*

The cost range of future CO<sub>2</sub> regulation addresses only the “likely range of costs of future carbon dioxide regulation on electricity generation,” as specified by Minn. Stat. §216H.06. An estimate of the regulatory costs of CO<sub>2</sub> only considers the anticipated future regulatory actions affecting electricity generators, such as a carbon tax, emissions permits, or some other regulatory mechanism. In contrast, Minn. Stat. §216B.2422, subd. 3 requires the Commission to “establish a range of environmental costs associated with each method of electricity generation.” In other words, the cost range developed under Minn. Stat. §216H.06 considers the cost of anticipated actions to comply with future regulation affecting electricity generators, while the cost range developed under Minn. Stat. §216B.2422 represents the estimated damage costs of the emissions. The value ranges associated with Minn. Stat. §216B.2422, subd. 3, commonly referred to as externality costs, are not the subject of this proceeding. See Docket No. E999/CI-14-643 for the Commission’s proceeding addressing non-regulatory externality costs.

In 2009, the Commission established the current range of \$9 to \$34 per ton of CO<sub>2</sub> for the regulatory cost of carbon. The record indicates that this range was based on numerous studies and other sources of carbon prices. These included studies from public and private institutions; the prices used by utilities (PacifiCorp and Xcel Energy) in integrated resource plans; voluntary markets such as the Regional Greenhouse Gas Initiative; and the mandatory regulation of the European Climate Exchange. The low end of the range (\$9) was the median of the values used by the utilities and the low-cost values in Synapse Energy’s 2008 CO<sub>2</sub> price forecasts. The high end of the range (\$34) represented the median of eleven different modeled values that were all \$20 and higher per ton of CO<sub>2</sub>.

Recent developments in the carbon market may no longer support the current range of \$9 to \$34 per ton of CO<sub>2</sub>. The two carbon markets in the U.S., the Regional Greenhouse Gas Initiative (RGGI) and the California Cap and Trade program, have recently seen declines in their auction prices to less than three dollars per ton CO<sub>2</sub>e for RGGI (June 2017) and 14 dollars per ton CO<sub>2</sub>e for California (May 2017). The RGGI price is the lowest it has been over the past four years. As another consideration, the carbon price in the world's largest carbon market, the European Union Emission Trading System, is around 7 dollars per ton CO<sub>2</sub>e\$ (August 2017). As stated in the questions above, however, it is uncertain whether price of carbon values outside the U.S. should be considered.

Another factor in estimating the cost range includes federal regulatory activity that may affect costs of CO<sub>2</sub> emissions from electrical generation units (EGUs) under Section 111 of the Clean Air Act. Section 111(b) addresses carbon pollution standards for new power plants while Section 111(d) addresses standards for existing plants in an effort called the Clean Power Plan. The U.S. Supreme Court's stay of the Clean Power Plan, blocking its implementation for the time being, brings high uncertainty as to whether and when it will be put into effect. Moreover, on March 28, 2017 the Presidential Executive Order of Promoting Energy Independence and Economic Growth rescinded the Clean Power Plan, further indicating that its implementation is not expected, at least in the foreseeable future. Shortly thereafter, the USEPA declared its intention to review the Clean Power Plan as well as Section 111(b) new source performance standards with the potential to suspend, revise or rescind these regulations. However, in light of the long lead-time to build generation facilities and the long lives of generation facilities, it is necessary to continue considering costs of future CO<sub>2</sub> regulations (along with other costs) to ensure that decisions regarding generation facilities are reasonably informed about costs.

The Agencies also note that Minnesota's Next Generation Energy Act has established ambitious statewide greenhouse gas emissions reduction goals. While the electricity generation sector appears to be on track to meet those goals, the state as a whole is struggling to achieve the emissions reduction goals.

Given the developments in the carbon markets over the past year and the high, near-term uncertainty of carbon regulation, the Agencies request that stakeholders suggest approaches to estimate the likely range of the cost of future CO<sub>2</sub> regulations.

#### *DATE UTILITIES SHOULD BEGIN REFLECTING COSTS OF CO<sub>2</sub> REGULATION IN THEIR ANALYSES*

In its initial December 21, 2007 Order in Docket No. E999/CI-07-1199 establishing an estimate of future CO<sub>2</sub> regulation costs, the Commission determined that it would be inappropriate to apply the proposed cost estimates to CO<sub>2</sub> that would be emitted before the regulations could be expected to affect electricity costs. In each subsequent update, the Commission has established the year in which the utilities would begin reflecting the costs of regulation in their analyses. In its most recent Order, the Commission indicated that it "will rely on the schedule for implementing these rules [the EPA's CO<sub>2</sub> rules under 111d] as a proxy for when CO<sub>2</sub> regulation in general would be likely to take effect." The Commission determined that the utilities' analyses should reflect that CO<sub>2</sub> regulatory costs will begin in 2022. As noted above, the U.S. Supreme Court's stay of the Clean Power Plan, and the recently issued executive order and subsequent declarations by the USEPA add uncertainty as to its implementation. The Agencies request that stakeholders address how the

Commission should address this uncertainty, particularly in terms of the expected date that utilities should reflect the cost of CO<sub>2</sub> regulation in their analyses.

#### *APPLICATION OF REGULATORY COST AND CO<sub>2</sub> EXTERNALITY (ENVIRONMENTAL COST) VALUES*

Some stakeholder input provided in establishing the most recent regulatory cost of CO<sub>2</sub> regulation indicated a need for the Commission to re-examine the relationship between the regulatory cost of CO<sub>2</sub> established under Minn. Stat. §216H.06 and the environmental cost of CO<sub>2</sub> established under Minn. Stat. §216B.2422 (commonly referred to as the externality cost). The Commission determined that there was “no advantage in attempting to reconcile its estimate of CO<sub>2</sub> regulatory costs and its estimate of CO<sub>2</sub> environmental costs before it has clarified its method of calculating environmental costs under Minn. Stat. § 216B.2422, subd. 3.” As previously noted, re-examination of the environmental costs was undertaken in Docket No. E999/CI-14-643 (Docket 14-643), and on July 27, 2017 the Commission decided to significantly increase CO<sub>2</sub> environmental cost values.

Given the Commission’s previous decision to apply only the regulatory cost value or the externality value, but not both, to emissions in a given planning year, the Agencies first request that the stakeholders address any basis for a Commission decision to alter how the two value ranges are applied in resource planning and acquisition decisions. Second, if there is a basis for the Commission to re-assess how the regulatory cost value and the externality value ranges are applied, the Agencies request that stakeholders suggest options for the Commission’s consideration.

## **CERTIFICATE OF SERVICE**

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce  
Request for Comments**

**Docket No. E999/DI-17-53 and E999/CI-07-1199**

Dated this 22<sup>nd</sup> day of August 2017

**/s/Sharon Ferguson**

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