Agenda Date: September 12, 2019
Item Number: A1

Docket: **U-190730**
Company: **Gas and Electrical Companies under Chapter 80.28 RCW**

Staff: Kathi Scanlan, Senior Resource Planning Manager (acting)

Recommendation

Commission staff (staff) recommends the commission adjust the social cost of carbon from 2007 dollars to current dollars per metric ton using the gross domestic product (GDP) price index published by the Bureau of Economic Analysis of the United States Department of Commerce as outlined in staff's memo.

Background

In 2019, the Washington State Legislature passed E2SSB 5116, containing the Clean Energy Transformation Act, relating to the clean energy transition of electric utilities, and E3SHB 1257, relating to energy efficiency in Washington.[1] On July 5, 2019, the Washington Utilities and Transportation Commission (commission) initiated a proceeding to consider the processes for implementation of energy legislation passed during the 2019 legislative session. The commission issued a Notice of Workshop to consider stakeholder feedback on its draft implementation plan for all energy legislation passed in the 2019 Regular Session. On July 30, 2019, the commission held a workshop during which stakeholders provided the commission with comments on the draft implementation plan. After receiving feedback from stakeholders, the commission published its *2019-2022 Energy Legislation Implementation Plan* on August 27, 2019. The plan described publication of the social cost of carbon by September 15, 2019.[2]

Discussion

As required by a new section added to chapter 80.28 RCW, outlining the cost of greenhouse gas emissions resulting from the generation of electricity and use of natural gas, the commission must adjust the social cost of carbon to reflect the effect of inflation.[3] This will provide utilities

[1] Laws of 2019, ch. 288 § 15 (E2SSB 5116-Clean Energy), ch. 285 § 15 (E3SHB 1257-Energy Efficiency).
[2] See Docket U-190485 *2019-2022 Energy Legislation Implementation Plan* (August 27, 2019) at page 2.
[3] The two laws above combine to add a new section to chapter 80.28 RCW to read as follows: the cost of greenhouse gas emissions resulting from the generation of electricity, including the effect of emissions, or resulting from the use of natural gas, including the effect of emissions occurring during the gathering, transmission, and distribution of natural gas to the end user, is equal to the cost per metric ton of carbon dioxide equivalent emissions, using the two and one-half percent discount rate, listed in table 2, technical support document: Technical update of the social cost of carbon for regulatory impact analysis under Executive Order No. 12866, published by the interagency working group on social cost of greenhouse gases of the United States government, August 2016. The commission must adjust the costs established in this section to reflect the effect of inflation.

immediate guidance on a significant input in integrated resource plans and conservation plans.[4] Staff considered two variables in developing its recommendation: 1) inflation factor, and 2) adjustment period.

Inflation Factor

Staff proposes adjusting the values referred to in statute using the GDP price index (Line 1) from the Bureau of Economic Analysis of the United States Department of Commerce for the effect of inflation, and is included as Attachment 1 to this memo.[5] The GDP is a broader measure of prices in the economy as compared with the consumer price index (CPI). This is especially relevant for social cost of carbon considerations, where costs are being estimated across the entire economy and not just specifically for consumer products. Further, the GDP deflator is also used as the annual adjustment for penalties under the Energy Independence Act.[6] For 2019 integrated resource plans, staff supports using either the CPI or GDP, or 50/50 blend of each index, because modeling is already underway.

Adjustment Period

Staff recommends an annual inflation adjustment on June 1 of each year, noting this adjustment period may change with the upcoming integrated resource plan (IRP) and Clean Energy Implementation Plan (CEIP) rulemakings. Staff believes the commission has the discretion to determine the adjustment period (quarterly, annual, biennial, quadrennial, or other period). An annual adjustment is reasonable and in line with other government agencies that adjust annually to reflect recent economic changes affecting inflation values. Through staff's informal communication with utilities, representatives from Cascade Natural Gas Corporation (Cascade) and Puget Sound Energy (PSE) indicated a preference for annual updates in the summer timeframe to allow sufficient time for modeling work in the IRP.

Proposed UTC Web Site Content

Staff proposes publishing on the commission's website the following conversion of cost of greenhouse gas emissions values in the table below from 2007 dollars to 2018 dollars, with accompanying narrative and description.

[4] Sec. 14. RCW 19.280.030 and 2015 3rd sp.s. c 19 s 9 are each amended to read as follows: (3)(a) An electric utility shall consider the social cost of greenhouse gas emissions, as determined by the commission for investor-owned utilities pursuant to section 15 of this act and the department for consumer-owned utilities, when developing integrated resource plans and clean energy action plans. An electric utility must incorporate the social cost of greenhouse gas emissions as a cost adder when: (i) Evaluating and selecting conservation policies, programs, and targets; (ii) Developing integrated resource plans and clean energy action plans; and (iii) Evaluating and selecting intermediate term and long-term resource options.

[5] Gross domestic product (GDP) price index measures the prices paid for goods and services produced by the U.S. economy and is derived from the prices of personal consumption expenditures (PCE), gross private domestic investment, net exports of goods and services, and government consumption expenditures and gross investment (https://www.bea.gov/help/glossary/gross-domestic-product-gdp-price-index).

[6] RCW 19.285.060(1).

Adjusted Cost of Greenhouse Gas Emissions

Line	*Year*	*Social Cost of CO2* (in 2007 dollars)*	*** GDP Index (2007)*	*** GDP Index (2018)*	*Adjusted Social Cost of CO2 (in 2018 dollars)*
1	2010	50	92.498	110.382	***60***
2	2015	56	92.498	110.382	***67***
3	2020	62	92.498	110.382	***74***
4	2025	68	92.498	110.382	***81***
5	2030	73	92.498	110.382	***87***
6	2035	78	92.498	110.382	***93***
7	2040	84	92.498	110.382	***100***
8	2045	89	92.498	110.382	***106***
9	2050	95	92.498	110.382	***113***

** Social cost of carbon in 2007 dollars using the two and one-half percent discount rate, listed in table 2, technical support document: Technical update of the social cost of carbon for regulatory impact analysis under Executive Order No. 12866, published by the interagency working group on social cost of greenhouse gases of the United States government, August 2016.*
*** Department of Commerce Bureau of Economic Analysis Gross Domestic Product Table 1.1.4 Annual Price Indexes Last Revised on: August 29, 2019*

Website Narrative:

Line	*Description*
1	The table above provides the social cost of greenhouse gas emissions to be included by utilities
2	in compliance with statute[7] and is equal to the cost per metric ton of carbon dioxide equivalent
3	emissions, using the 2.5 percent discount rate, listed in table 2, technical support
4	document: Technical update of the social cost of carbon for regulatory impact analysis
5	under Executive Order No. 12866, published by the interagency working group on
6	social cost of greenhouse gases of the United States government, August 2016, referred
7	to as the "technical support document." The social cost values for intermediate years are
8	calculated by linear interpolation and provided in Appendix A of the technical support document.

Stakeholder Outreach. Staff emailed interested parties on the proof of service in Docket U-190485 and reached out to utilities and various other interested parties to gather informal information and understand concerns. We received initial feedback from electric and gas investor-owned utility representatives, where the majority supported the use of the GDP as a reasonable inflation factor going forward. Representatives from PSE preferred to use CPI data for modeling currently underway for its 2019 electric and gas IRP; the company indicated that using GDP for the next IRP would be reasonable. Pacific Power & Light Company (Pacific Power) representatives did not have specific issues with staff's proposal and also suggested potentially considering a 50/50 blend of CPI and GDP.

The Northwest Energy Coalition (NWEC) is generally in agreement with staff's proposal and considers the "State and local" expenditure index values on Line 26 of Attachment A a possible option, asserting that this particular index may be more relevant to the expenditures and investments of large utilities. NWEC prefers the commission set a minimum inflation rate at

[7] Laws of 2019, ch. 288 § 15 (E2SSB 5116-Clean Energy), ch. 285 § 15 (E3SHB 1257-Energy Efficiency).

least once a year that is uniform for all three IOUs, but also allow the utilities to use a higher value with explanation. Climate Solutions supports the use of either the CPI or GDP index and recommends coordination between the commission and the Washington Department of Commerce (Commerce), suggesting consistency between public and private utilities' social cost of carbon cost values. Climate Solutions also supports the annual adjustment period aligning with the beginning of the CEIP and IRP development schedules.

Staff continues to have ongoing discussions regarding the social cost of greenhouse gases inflation adjustment with staff from Commerce. The agency is holding a public comment period related to its process of establishing rules to implement the Clean Energy Transformation Act (CETA) and social cost of carbon approach, with comments due by September 6, 2019.

Conclusion

Staff recommends publication of the table and the website narrative as described in this memo.