

080410-EG

CONFIDENTIAL

EXHIBIT "A"

DECLASSIFIED

02/08/2010 kmf

DOCUMENT NO. DATE

kmf 06995-09 07/13/09

FPSC - COMMISSION CLERK

46. Please refer to Exhibit JNF-1, Schedule 10, attached to Mr. Floyd's testimony. Please complete the following table, for each sensitivity in Schedule 10, regarding the estimated price of CO₂ emissions and the emission rate used annually.

ANSWER:

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cost of CO ₂ (10\$/Ton)						\$11.41	\$11.83	\$12.61	\$13.43	\$14.32
Cost of CO ₂ (20\$/Ton)						\$22.82	\$23.66	\$25.21	\$26.87	\$28.64
Cost of CO ₂ (30\$/Ton)						\$33.30	\$35.48	\$37.82	\$40.30	\$42.95
CO ₂ Emission Rate ¹ (Ton/MWh)					.402	.402	.402	.402	.402	.402

1. The CO₂ emission rate provided is for the combined cycle unit with a heat rate of 6,874 BTU/kWh designated as Gulf's avoided unit. The emission rate is a function of the CO₂ content of natural gas (117.1 lbs/MMBtu) and the heat rate of the unit.

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48. Please compare Gulf's CO₂ cost estimates with the Congressional Budget Office's CO₂ cost estimates under H.R. 2454.

ANSWER:

The Congressional Budget Office's study of H.R. 2454 released on June 5, 2009 included estimates of allowance prices that could result from H.R. 2454. As noted in the answer to interrogatory No. 47, other analyses of this bill show that CO₂ allowance prices could be significantly higher. The CBO study contains projected CO₂ allowance prices for the period 2011 through 2019 and are shown along with Gulf's CO₂ estimates in the table below.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cost of CO ₂ (10\$/Ton)						\$11.41	\$11.83	\$12.61	\$13.43	\$14.32
Cost of CO ₂ (20\$/Ton)						\$22.82	\$23.66	\$25.21	\$26.87	\$28.64
Cost of CO ₂ (30\$/Ton)						\$33.30	\$35.48	\$37.82	\$40.30	\$42.95
Cost of CO ₂ CBO Study		\$11	\$12	\$13	\$14	\$19	\$21	\$22	\$24	\$26

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49. How would the use of the Congressional Budget Office's CO₂ cost estimates under H.R.2454 affect Gulf's DSM goals? Please explain or describe the reasons why Gulf believes it is appropriate to include costs for carbon when setting goals.

ANSWER:

The CBO cost estimates associated with H.R. 2454 are slightly lower than Gulf's base case "\$20 per ton" assumptions. The CBO values, however, are only provided through 2019 so a full comparison cannot be made. Based on the values through 2019 and the way Gulf incorporated the assumed CO₂ costs as a benefit in the evaluations of measures (as described in response to staff's seventh set of interrogatories No. 39), a lower value for CO₂ would tend to decrease the benefit associated with an energy efficiency measure and generally lead to lower cost-effectiveness results of energy saving measures. Lower cost-effectiveness results would impact goals by having less measures included in the achievable potential results and, for the RIM portfolio, lower the incentive levels for the measures that are cost-effective. A table showing the values of the CBO estimates associated with H.R 2454 and Gulf's base case "\$20 per ton" CO₂ estimates are shown below:

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cost of CO ₂ (20\$/Ton)						\$22.82	\$23.66	\$25.21	\$26.87	\$28.64
Cost of CO ₂ CBO Study		\$11	\$12	\$13	\$14	\$19	\$21	\$22	\$24	\$26

The decision to include carbon costs when setting goals was based on Commission staff guidance.

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