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Rajinder Sahota
Chief, Climate Change Program Evaluation Branch
California Air Resources Board
1001 I Street – P.O. Box 2815
Sacramento, CA 95812

Re:	SoCalGas Comments on the December 2016 Proposed 15-Day Modifications to the Cap-and-Trade Regulation

Dear Ms. Sahota:

Southern California Gas Company ("SoCalGas") appreciates this opportunity to comment on the Air Resources Board's ("ARB") 15-day amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation ("Cap-and-Trade Amendments"), specifically the amendments related to the Post-2020 Natural Gas Supplier Allowance Allocation and Consignment. Our continued concern is with the amended Cap Adjustment Factor and Post-2020 Allowance Consignment requirements.

Maintain the Existing Cap Adjustment Factor for 2021-2030

The Cap-and-Trade Amendments continue to increase the rate of decline for Post-2020 cap adjustment factors ("CAFs"). As stated in previous comments, SoCalGas requests that ARB apply a linear continuation of the current CAFs for years 2021 through 2030. Reductions in direct allocation allowances will increase the cost pass-through while simultaneously decreasing the amount of consignable allowances that are used to mitigate costs for impacted customers and distributed as Climate Credits. The proposed CAFs are estimated to generate lower Climate Credit value than that of the current regulations, when compliance costs are at their highest ($48

vs. $63 per Climate Credit in year 2030). [1] This mismatch between credits and costs will result in rate impacts to utility customers that can be avoided by maintaining current regulations.

Support Current Consignment Level Increases of 5% per year

SoCalGas maintains that the current 5% annual increase in required allowance consignment levels for natural gas suppliers is the most prudent way forward. The most recent changes to the Cap-and-Trade Amendments propose full consignment starting in 2021. While SoCalGas does not object to the goal of reaching full consignment earlier than 2030, the sudden and aggressive acceleration to 100% consignment would cause substantial rate increases, which would be punitive to our customers, without delivering the reductions in emissions that ARB anticipates. In the supplemental material referred to as "Attachment D," ARB makes several arguments for starting 100% consignment in 2021. In the following paragraphs, we attempt to summarize and address them, and demonstrate why introducing a price signal with gradual consignment, the approach used between 2015 and 2020, is more sensible and effective.

Attachment D addresses post-2020 natural gas supplier consignment requirements and offers the following four major reasons to radically accelerate the consignment to 100%: 1) it will drive conservation, 2) it will lead to equitably distributed costs, 3) it will drive electrification, and 4) it will result in reduced fugitive emissions. ARB's arguments are not supported by the facts as demonstrated below.

1. ARB acknowledges that higher consignment will lead to higher costs passed-through to consumers, but that this will result in less natural gas use thereby decreasing household emissions by "40 to 50 kg CO2e" in 2021, the first year of the policy change. ARB argues that commercial and industrial sectors would reduce their emissions even more. As evidenced by well-respected energy efficiency studies and through SoCalGas' own observations and resource planning activities, natural gas price increases appear to have little short-term effect on consumption behavior in the retail market. [2,3,4]

   The price elasticities that ARB used to derive the emission reduction values are four to fifteen times higher than existing national, regional and state-specific studies of the natural gas short-run price elasticity. [5] For comparison, the CEC Demand Analysis

[1] Values in real 2016 dollars; consignment values assume a low allowance price scenario, derived from the auction floor price in 2016 escalated by 5% a year and adjusted 2% a year for inflation. By 2030 both scenarios would have reached full consignment.

[2] California Climate Change Center, *Price Impact on the Demand for Water and Energy in California Residences,* (CEC-500-2009-032-F) (2009).
[3] Bernstein, M.A., Griffin, J., *Regional Differences in the Price-Elasticity of Demand for Energy*, National Renewable Energy Laboratory, (Subcontract Report NREL/SR-620-39512) (2006).
[4] U.S. Energy Information Administration, *Price Elasticities for Energy Use in Buildings of the United States*. (2014).
[5] The CEC/CCCC paper (footnote 3 above) noted a price elasticity value in the Pacific census division to be -0.12; the NREL paper (footnote 4 above) found California residential short-run elasticity to be -0.098; EIA study found average short-run elasticities (avg. years 1-3) for residential sector to be -0.09; and the CEC Demand Analysis Office used residential elasticity of -0.035 for the California Energy Demand 2014-2024 Final Forecast (footnote 7 below).

Office used the following price elasticities for the 2014-2024 California Energy Demand Forecast: [6]

Table A-6: Price Elasticities of Demand by Sector, *CED 2013 Final*

Sector	Electricity	Natural Gas
Residential	-0.08	-0.035
Commercial	-0.15	-0.15
Industrial: Manufacturing	-0.17	-0.11
Industrial: Resource Extraction and Construction	-0.10	-0.02

Source: California Energy Commission, Demand Analysis Office, 2013.

The logic behind using *long-term* elasticities to calculate same-year demand changes is flawed (see footnote 7 of Attachment D), leading to inflated emissions savings purportedly realized beginning in year 1 of the policy change (year 2021). ARB's analysis applied long-run elasticities to calculate short-term effects, vastly overstating the short-run impacts. A gradual change in consignment, if known in advance, should supply the same long-run effects, without the potential for rate shock.

2. Attachment D states that accelerating full consignment will achieve equitable GHG costs between consumers and across sectors. While SoCalGas can understand the intent behind this thinking, in practice full consignment will likely exacerbate the disproportionate impact to residential vs. non-residential ratepayers. For example, Cap-and-Trade costs are imposed on all customer classes volumetrically; however, Cap-and-Trade revenues are returned to customers non-volumetrically through the Climate Credit with the specific customer classes eligible to receive the Climate Credit currently being determined by the California Public Utilities Commission ("CPUC"). [7] Therefore, a full consignment scenario increases the cost of compliance for everyone volumetrically then redistributes the consignment proceeds to certain customers non-volumetrically, thereby creating disproportionate rate impacts.

   As stated previously, SoCalGas is supportive of gradually reaching full consignment, but jumping to 100% over-night may place a needless and severe hardship on the state's non-residential customers, such as small businesses, non-profits and industry, who will bear the cost burden, but will not benefit from consignment proceeds in the same way that residential customers will under a non-volumetric return of revenue regime, as proposed by the CPUC.

[6] See page A-9 of California Energy Commission. *California Energy Demand 2014-2024 Final Forecast. Volume 1: Statewide Electricity Demand, End-User Natural Gas Demand, and Energy Efficiency*. (CEC-20002013-004-V1-CMG). 2014.

[7] CPUC Decision 15-10-032 directs natural gas investor owned utilities to return consignment proceeds to residential ratepayers as an annual Climate Credit. Subsequently, the CPUC has granted a limited rehearing of the Decision in the GHG Natural Gas OIR Rulemaking 14-03-003 to discuss the California Manufacturers & Technology Association's application for rehearing, resulting in a temporary suspension of Cap-and-Trade cost recovery and Climate Credit activity.

ARB also makes the assertion that partial consignment incentivizes fewer GHG emissions reductions from the natural gas supplied sector and leaves other sectors to accomplish those reductions. As stated in Item 1 above, increased cost pass-through resulting from full consignment will increase economic hardship on individual natural gas customers while having little effect on short-run GHG reductions. The same long-run reductions can be achieved with a known path of consignment reductions. It is also noted that fully 25% of the electric sector has no consignment requirements at all (publicly – owned electric distribution companies), so that a 5% decline will match the average consignment amounts in the same time period to 2030.

3. ARB explains that full consignment is also a means to encourage fuel switching from natural gas to electricity. Increasing the costs of operating natural gas appliances would be harmful to customers who currently use or prefer to use natural gas appliances, especially to those, such as tenants, who cannot make changes to building hot water and heating equipment, the two predominant end-uses of natural gas in the residential and commercial sectors. [8]

   Furthermore, it is far from a foregone conclusion that electric end-use appliances are lower GHG emitters than natural gas appliances in the near to mid-term. Currently, "end-use natural gas appliances most often represent a lower GHG emissions alternative because their efficiencies are higher than power plants, avoiding energy lost in the conversion of heat (from natural gas combustion at a power plant) to electricity and back to heat. End-use natural gas appliances also avoid the major transmission and distribution losses that are inherent in the electricity system." [9]

   Moreover, moving to electric appliances presupposes that renewable natural gas ("RNG") will never materialize. SoCalGas is optimistic about the role RNG will play in supporting the state's ambitious SB 32 GHG reduction target. SoCalGas has also been actively engaged in the development of the 2030 Target Scoping Plan and in advocating for actions and policies to increase RNG utilization.

   In addition to the environmental benefits of near-term natural gas appliances and long-term RNG, it has been documented that consumers prefer having natural gas in their home. A recent study concluded that mixed-fuel homes have cost and consumer preference advantages over electric-only homes. [10] ARB should not limit consumer choice, and should remain fuel and technology agnostic.

4. A final argument that ARB provides for accelerating the consignment requirements to 100% in 2021 is to reduce fugitive methane emissions. However, given how low natural gas demand elasticities are (as shown above in Item 1), the impact of raising natural gas

[8] Renters comprise of over 50% of all property occupants in Los Angeles County. US Census Bureau, 2012 American Community Survey. For predominant natural gas end uses, see 2009 California Residential Appliance Saturation Survey, KEMA, Inc., October 2010 and the California Commercial End-Use Survey, Itron, March 2006.
[9] See page 43, 44 from: California Energy Commission. 2015. *2015 Integrated Energy Policy Report.* Publication Number: CEC-100-2015-001-CMF.
[10] Navigant Consulting, Strategy and Impact Evaluation of ZNE Regulations on Gas-Fried Appliances and Phase 1 Technology Report, March 2015.

prices on fugitive emissions in the near term may not be significant. Therefore, fugitive emissions should not be a foundational consideration for amending Program regulations, especially when they are addressed directly by other regulations that will be more impactful. For example, ARB's Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities, scheduled for adoption in Q1 2017, set strict emission controls and continuous ambient monitoring of natural gas facilities to prevent fugitive methane emissions.

Furthermore, SoCalGas has a long-standing commitment to reducing methane emissions from our natural gas system. SoCalGas was one of the nation's first participants in the Environmental Protection Agency's Natural Gas STAR Program in 1993. This voluntary program to control methane emissions successfully identified emission sources and mitigation methods and has resulted in significant CO2e reductions every year since the program began. To further these gains, SoCalGas is implementing a number of best practices and new technologies, which are described in detail in our Natural Gas Leakage Abatement Report filed with the CPUC. [11]

In conclusion, SoCalGas believes that the viability and health of the post-2020 Cap-and-Trade program will be strengthened by maintaining the current cap adjustment factors and the gradual consignment increase as currently mandated in the regulations. Again, SoCalGas thanks you for this opportunity to comment on the Cap-and-Trade Amendments, and we look forward to additional dialogue. Please contact the undersigned if you have any questions or concerns about these comments.

Sincerely,

Tim Carmichael

Tim Carmichael
Agency Relations Manager
State Government Affairs
Sempra Energy Utilities

[11] Natural Gas Leakage Abatement Report, filed by Southern California Gas Company, on June 17, 2016, in partial fulfillment of (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno. https://socalgas.com/regulatory/documents/r-15-01-008/R1501008_SoCalGas%20_2016_Annual_Report.pdf