STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

November 3, 2017

Advice Letter 1050

Justin Lee Brown
Vice President/Regulatory Affairs
Southwest Gas Corporation
P O Box 98510
Las Vegas, NV 89193-8510

Subject: Requesting Approval to Use Certain Markets to Procure Authorized GHG Compliance Instruments to Satisfy the Company's Compliance Obligation Under the California ARB GHG Cap-and-Trade Program

Dear Mr. Brown:

Advice Letter 1050 is effective as of October 12, 2017.

Sincerely,

Edward Randolph

Edward Randolph
Director, Energy Division

SOUTHWEST GAS CORPORATION

September 12, 2017

ATTN: Tariff Unit, Energy Division
California Public Utilities Commission
505 Van Ness Avenue, Room 4005
San Francisco, CA 94102

Subject: Southwest Gas Corporation (U 905 G)
Advice Letter No. 1050

Enclosed herewith is an original and one (1) copy of Southwest Gas Corporation's Advice Letter No. 1050. There are no tariff sheets associated with this filing.

Sincerely,

Valerie J. Ontiveroz

Valerie J. Ontiveroz
Regulatory Manager/California

VJO
Enclosures

Advice Letter No. 1050 September 12, 2017

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Southwest Gas Corporation (Southwest Gas or Company) herewith submits Advice Letter No. 1050. There are no tariff sheets associated with this filing.

Purpose

The purpose of this Advice Letter is to request approval to use markets provided by the Intercontinental Exchange, Inc. (ICE) and the voice brokers of Evolution Markets, Inc. (Evolution) and Amerex Brokers, LLC (Amerex) to procure authorized Greenhouse Gas (GHG) compliance instruments, including California Carbon Allowances (CCA), California Carbon Offsets (CCO), and other carbon market based derivatives to satisfy the Company's compliance obligation under the California Air Resources Board's (ARB) GHG Cap-and-Trade program. This filing is being made in accordance with Decision (D). 14-12-040 issued in Rulemaking (R.) 14-03-003. This Advice Letter will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule.

Background

On March 13, 2014, the Commission issued R.14-03-003, "...to establish the policy, programs, rules and tariffs necessary for natural gas investor-owned utilities (natural gas corporations) to comply with the [ARB's] [GHG] Cap-and-Trade Program."[1] R.14-03-003 was bifurcated into two phases. Phase 1 addressed matters, such as authority for purchasing compliance instruments and the establishment of balancing accounts for GHG compliance costs and allowance revenues, which were necessary for the natural gas utilities to begin complying with the Cap-and-Trade regulations on January 1, 2015. D.14-12-040 was issued in Phase 1 on December 18, 2014, and approved, with modifications, a Joint Settlement Agreement,[2] which included the following provision concerning how gas utilities should request Commission approval to purchase GHG compliance instruments on an exchange or from a brokerage firm not previously approved by the Commission for such procurement:

> Prior to purchasing GHG compliance instruments on an exchange or from a brokerage firm not previously approved by the Commission for such procurement, each utility must submit a one-time Tier 2 AL detailing: (1) what exchange or brokerage firm it seeks to use, (2) the liquidity and transparency of the pricing offered by the exchange or brokerage firm, specifically for California GHG compliance instruments, including an explanation of how the price of products procured on the exchange or through the brokerage is market-based, and (3) the regulatory authority or authorities to which the brokerage firm is subject.[3]

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[1] R.14-03-003, pg. 2.

[2] Parties to the Joint Settlement Agreement were Southwest Gas, Pacific Gas & Electric Company, Southern California Gas Company, San Diego Gas & Electric Company, and the Office of Ratepayer Advocates.

[3] D.14-12-040, Appendix A, Section 7b(ii), at pg. 8.

<u>Background</u> *(continued)*

The following explains how Southwest Gas' request meets each of these requirements.

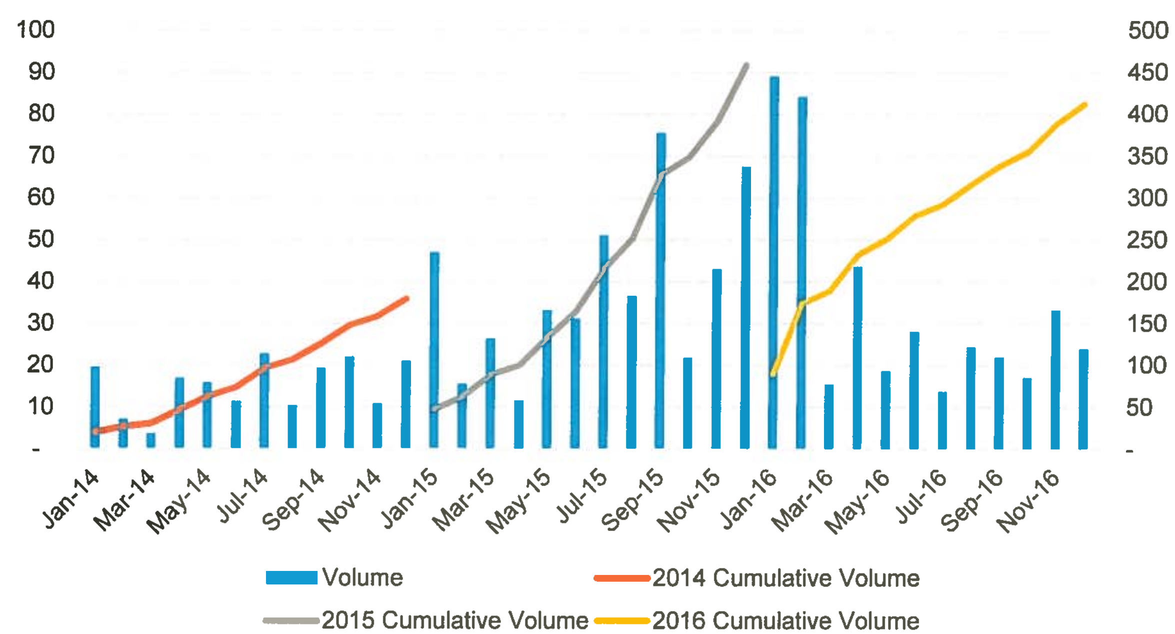
Liquidity

Liquidity is the ease of entering a marketplace and finding counterparties with which to transact. More buyers and sellers and a high volume of trading are indicative of liquid markets. Trading volume and open interest are metrics to gauge a market's liquidity. Liquid markets allow traders to enter and exit positions without significantly influencing prices.

Most of the secondary market trade in CCAs currently occurs in contracts listed on ICE, which offers futures and options contracts for agricultural commodities, equity indexes, currencies, energy and emissions. Trading in ICE for CCA emissions contracts began in 2011.

Historical ICE monthly cleared trading volume indicates growing liquidity in the secondary market. Figure 1 illustrates that cleared volume for both 2015 and 2016 was greater than 2014. The total future and options volume traded during 2015 was 459 Million Metric Tons (MMt) and during 2016 was 413 MMt. That represents a 256% increase over 2014 in 2015 and a 231% increase over 2014 in 2016. During 2016, CCA futures trading was likely impacted by uncertainty in the CCA market that has been alleviated through the California Legislature's recent passage of Assembly Bill (AB) 398 in July 2017, which extended the Cap & Trade program through 2030.

Firgure 1 - Monthly Traded Volum eof ICE CCA Furtures and Options (MMt)



Background *(continued)*

Average Daily Volume (ADV) is another indicator of liquidity in the ICE CCA market. Figure 2 shows the ADV of traded ICE CCA futures during 2014 through 2016 and the ADV three-month rolling average. While there is month-to-month volatility in the ADV, the three-month moving average illustrates the growth in volume through early 2016. During most of 2016, the CCA market was mired in uncertainty that, as was previously mentioned above, was removed by the passage of AB 398. The 2017 ADV shows growth returning with the ADV higher than was experienced in 2014. This represents increasing liquidity.

Figure 2 - Average Daily Volume (ADV) of ICE CCA Futures 2014 - 2016, Mt/day

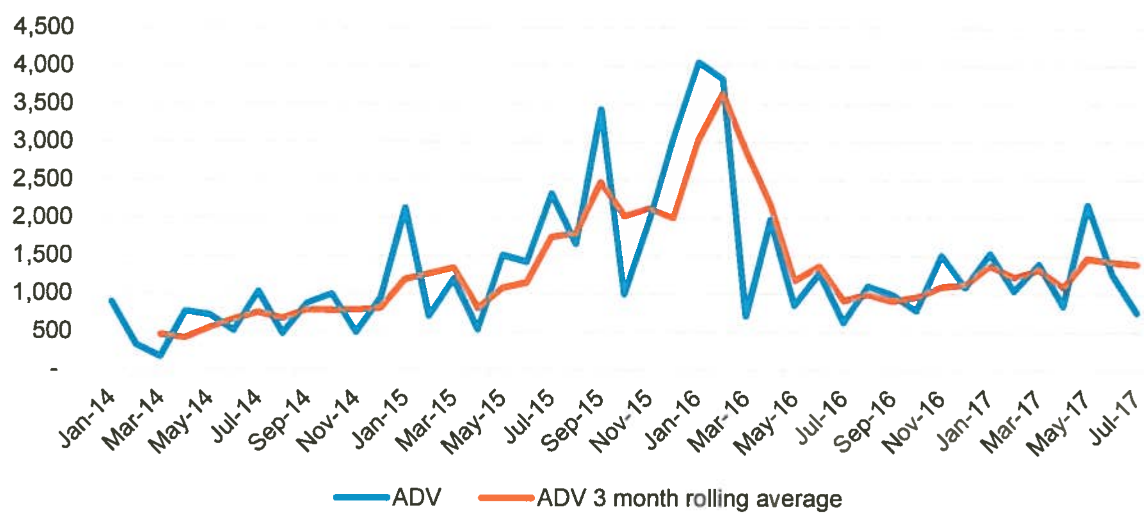


Figure 3 shows the open interest on ICE has over time. Increasing open interest also represents increasing liquidity in the market. While the open interest is currently below the highs reached in early 2016, the July 2017 open interest was 106 MMt, which is almost double the open interest achieved at the end of July 2014. Consequently, liquidity is still higher than was experienced in 2014.

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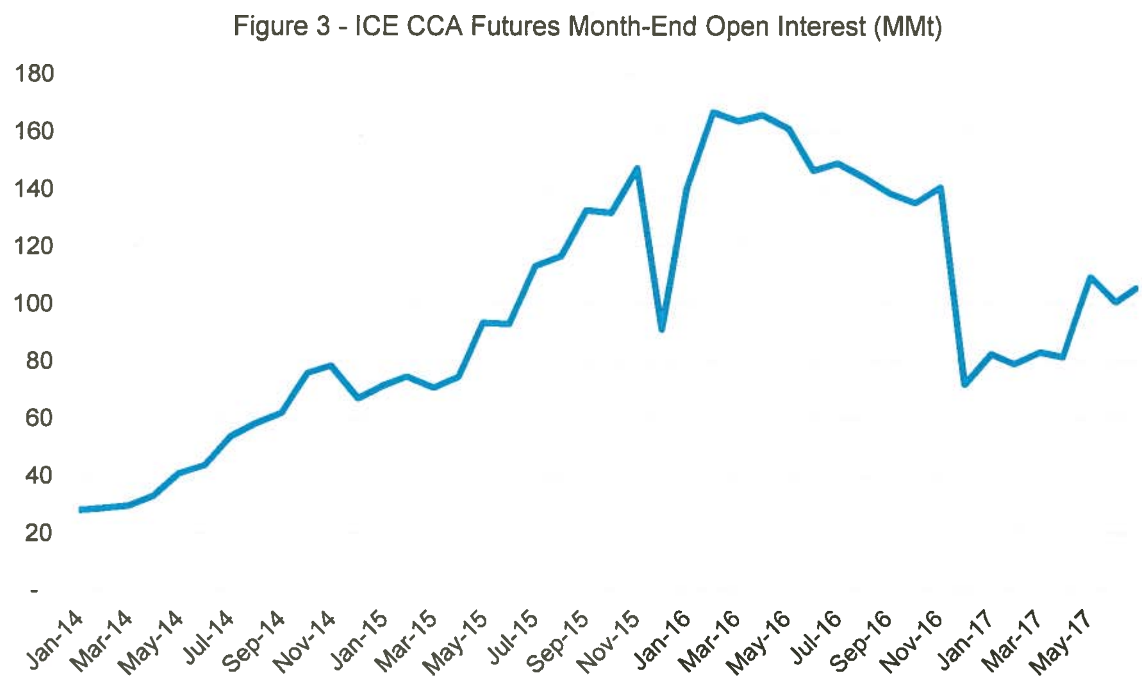
Background *(continued)*



Voice brokers contact buyers and sellers daily to determine the available bids and offers for various instruments and make the pricing available to market participants through phone, email and instant messenger (IM) communications. Voice brokers are effective at creating a diverse marketplace of CCA and CCO buyers and sellers and can offer a narrower bid-ask spread than is otherwise available on trading platforms such as WebICE. Thus, voice brokers increase liquidity by assisting in finding competitive bids, offers, and larger volumes than could be located without using a voice broker and solely relying on ICE for trading.

Currently, there are two methods to execute an ICE futures or options trade: 1) the trader directly uses WebICE to execute a trade, or 2) the trader uses the services of a voice broker that executes a trade using the ICE Block functionality on WebICE. Regardless of the method of trade execution, at the close of the day's trading, each trade is directed to the trader's Futures Commission Merchant (FCM) account.

FCMs are vital to the clearing process for trades. An FCM provides the means to warehouse, margin and mark-to-market trades. The mark-to-market process includes daily valuing the trade against that day's settlement price and assessing the gain or loss to the trader's FCM account. Existing FCMs include Barclays, BNP Paribas, Credit Suisse, Citigroup, Goldman Sachs, JP Morgan, Wells Fargo and many other large financial institutions.

Background *(continued)*

In addition to facilitating cleared trades, voice brokers also facilitate pure bilateral trades by matching its customers' bids and offers. Bilateral trades can prove to be challenging to execute because, without a broker making the connection between the parties, the two parties may never know of each other or that each party is in the market to make a trade. Further, since bilateral trades are not cleared through a third-party that provides warehousing, margining and mark-to-market services, the parties must be willing to accept each other's creditworthiness. Consequently, voice brokers knowledge of the market players and contacts can increase the chances that bilateral trades are completed because they can help bring two counterparties together that likely never would have traded without the broker introducing them.

Transparency

Transparency is the extent to which investors have ready access to relevant market data such as price levels, counterparty financial information, and market depth. Transparency can help reduce price volatility because market participants have access to the same information on which to base trading decisions. Both ICE and the voice broker community provide easy access to market price discovery and market depth, which increases the transparency in the marketplace. The WebICE electronic trading platform provides a transparent Central Limit Order Book[4] that is available to market participants. Posted bids and offers for various vintage allowances can be viewed. Traders may immediately execute a trade with any bid or offer in the market or they can add to the market depth by adding new bids and offers to those already posted. Consequently, the WebICE trading platform provides not only a place to execute a trade at market prices, but also price discovery and market depth analysis that can be compared to other Over-The-Counter (OTC) available offers and bids. Voice Brokers add to transparency by providing pricing to its clients. The combination of WebICE and Voice Brokers provides a relatively transparent market for trading CCAs.

Clearing

Trades executed on WebICE or through voice brokers that clear using ICE are guaranteed by the ICE clearinghouse. Consequently, when a futures contract is held to expiration, ICE guarantees both delivery of the CCAs and the price paid.

In addition to guaranteeing trades, the clearinghouse works with FCMs to daily transfer money from each FCMs' warehoused losing trades and direct that to each FCMs' warehoused winning trades. This daily process is required so that FCMs cover the loses of its warehoused

[4] A Central Limit Order Book is the trading method most exchanges utilize. Its transparent system matches customer orders (e.g., bids and offers) on a "price time priority" basis. The highest (best) bid order and the lowest (cheapest) offer order constitute the best market. Customers can see market depth or the "stack" by comparing bid orders for various sizes and prices on one side against offer orders at various sizes and prices on the other side.

Background *(continued)*

trades, insures that the commodity is valued at daily market prices, and enhances the creditworthiness of the clearinghouse. The FCMs have separate relationships with the traders that cover when margin calls are required to cover losses on the trader's trades that are warehoused with an FCM.

Cleared ICE trades are deemed attractive due to these requirements and the creditworthiness of the ICE clearinghouse that stands between all trades and guarantees performance. CCA futures traded on ICE are cleared through the ICE Clear Europe clearinghouse.[5] To help mitigate systemic risk and protect the interests of ICE Clear Europe clearinghouse clearing members and customers, ICE Clear Europe holds $35 billion in its financial guarantee package (guarantee fund) and is regulated by the Bank of England in the United Kingdom and by the Securities and Exchange Commission and Commodities Futures Trading Commission (CFTC) in the United States.[6]

The ICE Clear Europe clearinghouse and WebICE are distinctly different entities, with different regulatory requirements (see below). In addition to emission futures contracts, such as CCAs, ICE Clear Europe is ICE's clearinghouse for its energy futures. By using this clearinghouse for both the energy and emission futures contracts, ICE can offer co-margining when correlation exists amongst customer held contracts, thereby reducing margining cost for traders.

All traded CCA futures, which are cleared by ICE, are displayed following execution on the ICE ticker. Thus, by trading and clearing on ICE, traders are effectively enhancing price transparency in the marketplace. When a trade is executed through a voice broker, including Evolution and Amerex, the brokers are required, per exchange rules, to submit trades to ICE within 15 minutes of execution. Also per the exchange rules, traders' identities are known only to the brokers, enabling traders to remain anonymous.

At the close of each trading day, ICE provides settlement prices for all its futures and options contracts. These settlement prices provide a transparent valuation for market participants interested in the current market value of the various CCA vintages. ICE's daily settlement process is based on a published and standardized methodology for determining fair value for all the traded products. The daily settlement sets the reference price against which all open positions in clearing accounts are trued up in the mark-to-market process previously referenced.

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[5] *See* https://www.theice.com/products/31687042/California-Carbon-Allowance-Vintage-2017-Future.
[6] *See* https://www.theice.com/clear-europe.

Background *(continued)*

Market-Based Prices

Markets can be defined as places where buyers and sellers can meet, make trades, and set market prices. By facilitating the meeting of competitive bids and offers, WebICE and the voice broker community provide buyers and sellers access to such markets. One of the key functions of a market is to provide a fair and transparent settlement price after each trading day concludes. A fair and transparent settlement price provides the market and its participants with a value to true up their market positions.

ICE settles the CCA market each trading day during the "Settlement Window" that starts at 12:45 pm PT and runs through market close at 1:00 pm PT. Settlement prices for each vintage and expiry date are determined by the average price of trades that occur during the Settlement Window, weighted by volume. In the absence of trading during the Settlement Window, ICE considers live bids and offers existing during the settlement window and may also contemplate other information such as spread relationships between different vintages and expiry dates. Thus, both WebICE and the voice broker community provide access to market-based prices.

Regulatory Authorizations

ICE, ICE Clear Europe, and voice brokers are overseen and regulated by a multitude of government agencies and other regulatory bodies. ICE is a Designated Contract Market (DCM) pursuant to the Commodity Exchange Act, registered and regulated by the CFTC. The principal functions of the CFTC are to prevent manipulation of futures markets, enact and enforce customer protection rules, prohibit the spread of misinformation, approve new contracts, and regulate exchanges.

As mentioned above, CCA futures traded on ICE are cleared at the ICE Clear Europe clearinghouse. ICE Clear Europe is overseen by the Bank of England, and regulated in the United States by both the CFTC and the SEC. ICE is required to comply with the access, reporting and record-keeping requirements of the CFTC. Both the CFTC and the Federal Energy Regulatory Commission have real-time view access to the WebICE trading platform and see details on voice broker submitted trades. In addition, ICE is required to record and report to the CFTC complaints of alleged fraud or manipulative trading behavior.

Voice brokers, including Evolution, and Amerex are subject to the regulatory supervision of several entities. First, they are subject to direct regulatory oversight by the CFTC. ICE also regulates voice brokers with a primary focus on trade operations, transparency, and fairness. Voice brokers are also subject to the supervision of the National Futures Association (NFA). The NFA is a self-regulatory body with the principal functions of policing members, auditing members for minimum financial requirements, enforcing trading rules and ethical standards, providing arbitration between customers and NFA members, and establish training and proficiency standards.

Effective Date

Southwest Gas believes this Advice Letter is subject to Energy Division disposition and should be classified as Tier 2, effective after Energy Division Approval, pursuant to General Order (GO) 96-B. Southwest Gas respectfully requests this Advice Letter be approved October 12, 2017, which is thirty (30) calendar days after the date filed.

Protest

Anyone may protest this Advice Letter to the Commission. The protest must state the grounds upon which it is based with specificity. The protest must be sent no later than 20 days after the date of this Advice Letter filing and shall be sent by letter via U.S. Mail, facsimile, or electronically mailed. The address for mailing or delivering a protest to the Commission is:

ATTN: Tariff Unit
Energy Division
California Public Utilities Commission
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94102
E-mail: edtariffunit@cpuc.ca.gov
Facsimile: 415-703-2200

Copies should also be mailed to the attention of the Director, Energy Division, Room 4004, at the same address as above, and mailed, faxed or electronically mailed to:

Mr. Justin Lee Brown
Vice President/Regulation & Public Affairs
Southwest Gas Corporation
P.O. Box 98510
Las Vegas, NV 89193-8510
E-mail: justin.brown@swgas.com
Facsimile: 702-364-3452

Notice

Southwest Gas believes it is exempt from the notice requirements set forth in General Rule 4.2 of GO 96-B, since this Advice Letter will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule that are currently in effect.

Service

In accordance with GO 96-B, General Rule 7.2, Southwest Gas is serving this Advice Letter and related tariff sheet to the utilities and interested parties shown on the attached list. Communications regarding this filing should be directed to:

Background *(continued)*

Valerie J. Ontiveroz
Regulatory Manager/California
Southwest Gas Corporation
P.O. Box 98510
Las Vegas, NV 89193-8510
Telephone: 702-876-7323
E-mail: valerie.ontiveroz@swgas.com

Respectfully submitted,

SOUTHWEST GAS CORPORATION

By: ______________________
Justin Lee Brown

Attachments

Distribution List

Advice Letter No. 1050

In conformance with GO 96-B, General Rule 4.3, the following individual has been served by regular, first-class mail:

Elizabeth Echols, Director
Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94105

The following individuals or entities have been served by electronic mail:

Pacific Gas & Electric Company
PGETariffs@pge.com

Southern California Gas Company
ROrtiz@SempraUtilities.com

San Diego Gas & Electric Company
SDG&ETariffs@SempraUtilities.com

Belinda Gatti
Energy Division
California Public Utilities Commission
belinda.gatti@cpuc.ca.gov

Robert M. Pocta
Office of Ratepayer Advocates
California Public Utilities Commission
rmp@cpuc.ca.gov

Nathaniel Skinner
Office of Ratepayer Advocates
California Public Utilities Commission
nws@cpuc.ca.gov

Pearlie Sabino
Office of Ratepayer Advocates
California Public Utilities Commission
pzs@cpuc.ca.gov

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY
ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)	
Company name/CPUC Utility No. **Southwest Gas Corporation (U 905 G)**	
Utility type: ☐ ELC ■ GAS ☐ PLC ☐ HEAT ☐ WATER	Contact Person: **Valerie J. Ontiveroz** Phone #: **(702) 876-7323** E-mail: **valerie.ontiveroz@swgas.com**
EXPLANATION OF UTILITY TYPE ELC = Electric GAS = Gas PLC = Pipeline HEAT = Heat WATER = Water	(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **1050**

Subject of AL: **Requesting approval to use certain markets to procure authorized GHG compliance instruments to satisfy the Company's compliance obligation under the California ARB GHG Cap-and-Trade program.**

Keywords (choose from CPUC listing): **Cap-and-Trade**

AL filing type: ☐ Monthly ☐ Quarterly ☐ Annual ■ One-Time ☐ Other

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL **Not applicable**

Summarize differences between the AL and the prior withdrawn or rejected AL[1]: **Not applicable**

Resolution Required? ☐ Yes ■ No

Requested effective date: **October 12, 2017** No. of tariff sheets: **0**

Estimated system annual revenue effect: (%): **Not applicable**

Estimated system average rate effect (%): **Not applicable**

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: **Not applicable**

Service affected and changes proposed[1]: **Not applicable**

Pending advice letters that revise the same tariff sheets: **Not applicable**

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Ave.
San Francisco, CA 94102
E-mail: edtariffunit@cpuc.ca.gov

Mr. Justin Lee Brown,
Vice-President/Regulation & Public Affairs
Southwest Gas Corporation
P. O. Box 98510
Las Vegas, NV 89193-8510
E-mail: justin.brown@swgas.com
Facsimile: 702-364-3452

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[1] Discuss in AL if more space is needed.