Application No: A.15-06-020
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Witness: Manuel Rincon

Application of Southern California Gas Company (U 904 G) and San Diego Gas & Electric Company (U 902 G) for Authority to Revise their Curtailment Procedures	A.15-06-020 (Filed June 26, 2015)

PREPARED REBUTTAL TESTIMONY OF

MANUEL RINCON

SOUTHERN CALIFORNIA GAS COMPANY

SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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PREPARED REBUTTAL TESTIMONY

OF MANUEL RINCON

I. PURPOSE

The purpose of my prepared rebuttal testimony on behalf of Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) is to: (1) explain that the proposed tariffs do not need to be modified to allow SoCalGas and SDG&E to move from Step 2 to Step 3 before reaching 60% cuts to electric generation (EG) load if the gas is needed to assure electric system reliability; (2) dispute the unfounded concerns expressed by the Southern California Generation Coalition (SCGC) about the modeling in Mr. Watson's direct testimony; (3) address the potential to base EG cuts off of day-ahead EG forecasts; (4) argue against limiting summer cuts to 30%; and (5) rebut the across-the-board pro-rata approach to curtailments advocated by SCGC.

II. EMERGENCY CURTAILMENT PROCEDURES CAN BE USED TO MOVE TO STEP 3 BEFORE COMPLETING STEP 2

Both Southern California Edison (SCE) and SCGC suggest SoCalGas and SDG&E should have the ability in the proposed curtailment procedures to move from Step 2 to Step 3 before reaching 60% EG cuts if the gas is needed for electric system reliability.[1] This may be an unnecessary addition to the proposed procedures. If electricity reliability issues could affect core customers in a local zone, SoCalGas can use the Emergency Curtailment procedures in Rules 23 to "curtail … customers in the most reasonable and practical manner possible."[2] SDG&E has similar language in its curtailment procedures.[3] That is, if SoCalGas or SDG&E are certain that significant electric system reliability issues would be at stake, they could use the Emergency

[1] Direct Testimony of Robert Grimm C. Grimm at 9-11; Direct Testimony of Catherine E. Yap at 15-16.
[2] *See* Rule 23, Section E in Mr. Borkovich's direct testimony.
[3] *See* Rule 14, Section I in Mr. Borkovich's direct testimony.

Curtailment Procedures in their tariffs to avoid the normal curtailment steps.

III. SCGC CONCERNS ABOUT MODELING ARE NOT WELL FOUNDED

SCGC asserts that Mr. Watson admits that "only 30% cuts to EG loads could be accommodated during summer months without risking blackouts because that is the peak season for the EGs"[4]. This is incorrect. The simulation presented in Mr. Watson's testimony does show a risk at a 30% cut level during the very hot summer month of September 2014.[5] But the real-world events of June 30, 2015 showed that over a 30% cut on the peak hour could be accommodated within the L.A. Basin Zone with no significant consequence to electric reliability.[6]

The analysis presented in Mr. Watson's direct testimony is overly simplified. For example, it assumed the cut in question was a system-wide cut, affecting all of SP-15's service territory, not a localized curtailment.[7] In addition, that analysis did not recognize the ability of the California Independent System Operator (CAISO) to move increased electricity production from generators in a non-affected localized zone to the affected localized zone. This is what happened in the summer of 2015. The point of Mr. Watson's analysis was simply to demonstrate that SP-15 has significant electrical import capability that can compensate for the system-wide loss of gas-fired electrical generation within SP-15.

SCGC claims "there is always the potential for summer burn to increase to the level that approximates a winter day."[8] This may be true for certain hours in the near term. System linepack can usually handle these hourly peaks. But SCGC's observation is unlikely on a daily

[4] *Id.* at 9.
[5] Direct Testimony of Steve Watson, Table 3.
[6] *See* SoCalGas Advice Letter 4827. The average EG burn over the 3-8 pm curtailment period was 20 MMcf less than the forecasted peak over that period.
[7] SP-15 is an electric power market zone in Southern California that includes the territories served by San Diego Gas and Electric and Southern California Edison.
[8] Direct Testimony of Catherine E. Yap at 9.

basis or in the longer-term. And curtailments are generally related to peak daily sendout. Since November 2011, the recorded daily burn during the peak summer months (June through September) has never exceeded 3,600Mdth. Throughout the same period, there were 107 winter days with a recorded burn greater than this summer peak. In fact, since November 2011, the recorder winter peak has exceeded 5,200Mdth. This relation between the summer and winter peak day is unlikely to change. Furthermore, the State's goal of obtaining 50% renewables by 2030 will decrease the peak EG load net of renewables. In addition, the latest California Energy Commission's (CEC) mid demand forecast shows no growth on the peak summer electric power load for the territory covered by SCE, the Los Angeles Department of Water and Power (DWP) and SDG&E.[9]

SCGC claims that SoCalGas and SDG&E's curtailment update proposal fails to "address the potential for supply shortfalls."[10] SoCalGas and SDG&E disagree. Based on the PG&E experience, our curtailment update proposals assume that SoCalGas and SDG&E's new low OFO procedures—modeled after Pacific Gas & Electric Company's (PG&E) procedures—will address those issues.

SCGC claims that 37% of curtailments in the last five years have been in summer months.[11] But most of those summer events were planned maintenance outages.[12] Grid Operators know how to deal with those types of curtailments while avoiding significant electric reliability issues. Other curtailments over the summer periods were supply-related curtailments. The current application, however, is focused on localized, capacity-related curtailments. System-wide supply issues should generally be dealt with through the low Operational Flow

[9] *See* California Energy Commission Load Serving Entity and Balancing Authority Forecasts, LSE and BA Tables Mid Demand Baseline - Mid AAEE TN-209989 Submitted 1/27/2016.
[10] Direct Testimony of Catherine E. Yap at 10.
[11] *Id.*
[12] *See* response to SCGC Data Request.1.5.3.

Order (OFO) procedures—as they are on the PG&E system. Southern system supply shortfalls can continue to be made up with purchases by the System Operator Hub.

SCGC also draws incorrect conclusions concerning the potential impact of a 60% cut on a non-peak hour. SCGC is concerned that this could create effective curtailments that exceed 60%, perhaps reaching 80%, during winter periods.[13] This concern is not well founded because SCGC wrongly assumes a 10 A.M. curtailment in Table 3. But there have only been five localized, capacity-related end-use curtailments that were unplanned, and all of those curtailments went into effect at 3 P.M. or later. Although in the past, SoCalGas has often given hours of notification ahead of the effective curtailment, under the proposed process curtailments could become effective much more quickly. That is one reason SoCalGas and SDG&E want to put a significant portion of EG load in Step 2.

More important, however, is the proposed 60% maximum figure is already a conservative figure for winter periods. SoCalGas and SDG&E's analysis indicates that during the winter the effective cut can exceed 80% without any impact in the model's simulations. CAISO can simply import more electricity to compensate for the loss of gas-fired electrical generation within SP-15.[14] And again, the model assumes system-wide (i.e., throughout SP-15) EG impacts, not constraints in a particular local gas service zone or sub-zone mentioned in Mr. Bisi's direct testimony. The CAISO and other operators may have flexibility not recognized in the SoCalGas/SDG&E model. They might be able to move electrons from an unaffected zone to the affected zone and avoid significant electric grid issues even with significant gas cuts to EGs in a particular zone. They may be able to re-dispatch the generation within their much broader electric grids.

[13] Direct Testimony of Catherine E. Yap at 11-12, specifically, Table 3.
[14] SP-15 overlaps with most of the local gas service zones shown in Figure 3 of Mr. Bisi's direct testimony.

IV. CUTS USING FORECASTED EG LOAD COULD BE ACCEPTABLE

Both SCE and SCGC propose that the EG cut be based on forecasted volumes, not current operating volumes.[15]

SoCalGas and SDG&E do not object to having the flexibility to base the cuts on forecasted EG loads provided by grid operators. In fact, this approach may in many instances be preferable since it would allay some interveners' concerns about making an unnecessarily large cut in the morning hours. But SoCalGas and SDG&E insist that they also have the ability to make cuts up to 60% of real-time loads if the situation warrants it. Simply put, EG forecasts can be wrong. Also, there can be other issues on the Gas System which requires the Gas System Operator to implement curtailments quickly in order to avoid curtailing the customers in Step 3. The System Operator has to have the discretion to employ both approaches. If using real-time data, the System Operator could exercise only the degree cut which was necessary to quickly stabilize the system—say 20%. A smaller percentage cut done quickly is often all that the System Operator needs. The System Operator would increase that percentage only if the system pressures were not be stabilized with that cut. In other words, they would use the "up to" provision with proper System Operator discretion.

V. SUMMER CUTS SHOULD NOT BE LIMITED TO 30%

Both SCE and SCGC assert that the EG cut should be limited to 60% in the winter and 30% in the summer.[16] SoCalGas and SDG&E are amenable to setting a percentage limit for the summer that is lower than 60%. This is because system-wide EG demands during July-September are generally 1.5 to 2 times higher than they are in the December-February period. Therefore, a 30% EG cut in summer demand would provide approximately as much volume to

[15] Direct Testimony of Robert C. Grimm at 12-14; Direct Testimony of Catherine E. Yapp at 16-19.
[16] Direct Testimony of Robert C. Grimm at 11; Direct Testimony of Catherine E. Yap at 14.

the System Operator as a 45-60% EG cut during the winter.[17] Nevertheless, the 30% limitation suggested by SCGC and SCE is too low. The June 30th and July 1st, 2015 cuts in the L.A. Basin show that cuts over 30% can be permitted in a local zone with little detriment to electric service. This proposal by SCGC should not be adopted at this time. The Step 2 cuts during summer months should be "up to" at least 40%.

As noted in the previous section, the System Operator can exercise only the degree cut which was necessary to quickly stabilize the system. A smaller percentage cut done quickly is likely all that the System Operator will need. The System Operator would increase that percentage only if the system pressures were not be stabilized with that cut.

VI. THE COMMISSION SHOULD NOT ADOPT SCGC's RECOMMENDATION FOR PRO RATA CURTAILMENTS

SCGC argues for a pro-rata approach to localized curtailment, like the approach used by PG&E.[18] The Commission should not adopt this proposal.

PG&E's pro-rata approach to localized curtailments was part of the original PG&E Gas Accord settlement over 20 years ago. As with our own somewhat antiquated curtailment rules, the PG&E pro rata provisions reflect a different time and market structure. For the reasons explained in our application and opening testimony, pro rata curtailment no longer makes sense on a system-wide basis. And it does not make any more sense on a localized basis.

SoCalGas and SDG&E's experience has been that it is difficult to implement curtailments for smaller customers. Most gas system operators would strongly prefer to curtail large loads quickly so as to stabilize their systems. And the electric grid systems now have enough import capabilities to bring in substantial imported power into their zones to compensate for gas-fired electric generation that is curtailed in certain local zones (See Mr. Watson's

[17] *See* Response to SCGC Data Request 7.3.
[18] Direct Testimony of Catherine E. Yap at 5-6.

workpapers). In addition, the CAISO territory is large. CAISO can reallocate electricity generation from one unaffected local zone to the affected local zone. It can do this quickly and efficiently. Excess electrical import capabilities for each of the grid operators, excess electrical grid capabilities between local gas transmission zones, and other efficiencies in the dispatch of electricity did not exist in 1997. They do today. Therefore, the Commission should reject this proposal of SCGC and adopt SoCalGas and SDG&E's tiered proposal. That proposal relies on the capabilities of the grid operators to substitute electrons (either imported from outside the grid operators' service territory or re-dispatched from another gas transmission zone unaffected by the localized curtailment) to compensate for the modest, quick curtailments of gas-fired electrical generation within a particular local zone.

VII. QUALIFICATIONS

My name is Manuel Rincon. I am employed by SoCalGas as a Quantitative Research Supervisor. My business address is 555 West Fifth Street, Los Angeles, California, 90013-1011.

I received Bachelor's degrees in Economics and Psychology and a Master's degree in Economics from the University of Southern California. At SoCalGas, I have worked in the Gas Acquisitions and the Energy Markets and Capacity Products Departments. My current responsibilities include supervising a team modeling and forecasting gas powered generation in Southern California, forecasting gas receipts, and the financial modeling of storage products.

This concludes my prepared rebuttal testimony.