

Pacific Gas and Electric Company



California Gas Transmission

OFO Report
Second Quarter 2001
(April – June, 2001)

July 30, 2001

Subject to Rule 51 of the CPUC Rules of Practice and Procedure,
Rule 601 et seq. of the FERC Rules of Practice, Rule 408 of the Federal
Rules of Evidence, and Section 1152 of the California Evidence Code

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I. BACKGROUND

PG&E is providing this Operational Flow Order (OFO) Report (Report) as required by its OFO Settlement Agreement (OFO Settlement or Settlement)¹ and as part of its continued commitment to keep the California natural gas market participants informed. These Reports are provided quarterly. This Report covers the second quarter of 2001 – April 1 through June 30. The purpose of the OFO Report is to document “the number and causes of each customer-specific and system-wide OFO, EFO and ‘trimming’ occasion (‘Event’) within the prior three months.”²

The OFO Settlement has been in effect for over one year now. As demonstrated in the previous quarterly reports, this Settlement has been successful in reducing the market impacts of OFOs. This, and future, quarterly reports will focus on providing the data required in the Settlement. Background information and discussion on the OFO process is available from the Pipe Ranger web site, located on the Internet at http://www.pge.com/pipeline/library/ofeofodiv/fo_index.html.

II. OFO EVENTS DURING THE QUARTER

A. OFO Event Summary

During the quarter ending June 30, 2001, PG&E called a total of twenty-three (23) OFO events. Nineteen (19) of these were system-wide OFOs, and four (4) were customer-specific OFOs. During this quarter, all twenty-three OFO events were a result of high pipeline inventory. There were no EFO events during this quarter. There were two (2) “trimming”, or receipt point capacity allocation, events. These receipt point capacity allocation events both occurred on a day that a customer-specific OFO was also in effect. Table 1 provides a summary of each OFO event, with the shaded rows indicating customer-specific OFOs.

¹ PG&E’s OFO Settlement was approved by the CPUC in Decision 00-02-050 on February 17, 2000. The Settlement tariffs were effective April 1, 2000.

² See Section C.1.f, page 5 of the OFO Settlement.

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Table 1: OFO Event Summary

Date	Type	Cause / Comments
Sunday April 1, 2001	? Customer-Specific ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 3% ? Customers: 8	? Projected ending inventory of 4,678 MMcf exceeded upper limit of 4,500 MMcf.
Saturday May 5, 2001	? Customer-Specific ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 11% ? Customers: 6	? Projected ending inventory of 4,726 MMcf exceeded upper limit of 4,600 MMcf. ? Receipt point capacity allocation, or “trimming”, event was also required during the gas day to bring pipeline inventory under control.
Sunday May 6, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 2%	? Projected ending inventory of 5,194 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because targeted customers’ forecast imbalance relief was insufficient.
Monday May 7, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 2%	? Projected ending inventory of 4,687 MMcf exceeded upper limit of 4,600 MMcf. ? Customer-Specific OFO not called because targeted customers’ forecast imbalance relief was insufficient.
Friday May 11, 2001	? Customer-Specific ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 2% ? Customers: 6	? Projected ending inventory of 4,655 MMcf exceeded upper limit of 4,600 MMcf.
Saturday May 12, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 0%	? Projected ending inventory of 5,038 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because targeted customers’ forecast imbalance relief was insufficient.
Sunday May 13, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 0%	? Projected ending inventory of 4,906 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because targeted customers’ forecast imbalance relief was insufficient.
Monday May 14, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 15%	? Projected ending inventory of 4,668 MMcf exceeded upper limit of 4,600 MMcf. ? Customer-Specific OFO not called because targeted customers’ forecast imbalance relief was insufficient.
Thursday May 17, 2001	? Customer-Specific ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 1% ? Customers: 10	? Projected ending inventory of 4,610 MMcf exceeded upper limit of 4,600 MMcf. ? Receipt point capacity allocation, or “trimming”, event was also required during the gas day to bring pipeline inventory under control.

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Date	Type	Cause / Comments
Friday May 18, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 0%	? Projected ending inventory of 4,914 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because targeted customers' forecast imbalance relief was insufficient.
Saturday May 19, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 0%	? Projected ending inventory of 4,719 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because targeted customers' forecast imbalance relief was insufficient.
Saturday May 26, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 1%	? Projected ending inventory of 4,953 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because more than 10 balancing entities would have been targeted.
Sunday May 27, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 1%	? Projected ending inventory of 4,942 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because targeted customers' forecast imbalance relief was insufficient.
Monday May 28, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 4 at \$25.00/Dth ? Tolerance Band: 1%	? Projected ending inventory of 4,849 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because targeted customers' forecast imbalance relief was insufficient.
Wednesday May 30, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 8%	? Projected ending inventory of 4,611 MMcf exceeded upper limit of 4,600 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.
Saturday June 2, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 6%	? Projected ending inventory of 4,686 MMcf exceeded upper limit of 4,600 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.
Sunday June 3, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 4 at \$25.00/Dth ? Tolerance Band: 1%	? Projected ending inventory of 4,887 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.
Thursday June 7, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 4 at \$25.00/Dth ? Tolerance Band: 2%	? Projected ending inventory of 4,741 MMcf exceeded upper limit of 4,600 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.

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Date	Type	Cause / Comments
Saturday June 9, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 7%	? Projected ending inventory of 4,655 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.
Sunday June 10, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 4 at \$25.00/Dth ? Tolerance Band: 5%	? Projected ending inventory of 4,685 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.
Thursday June 14, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 4%	? Projected ending inventory of 4,671 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.
Friday June 15, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 3 at \$5.00/Dth ? Tolerance Band: 8%	? Projected ending inventory of 4,671 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.
Saturday June 30, 2001	? System-Wide ? <u>High Inventory</u> ? Stage 2 at \$1.00/Dth ? Tolerance Band: 7%	? Projected ending inventory of 4,563 MMcf exceeded upper limit of 4,500 MMcf. ? Customer-Specific OFO not called because recent operating experience with Customer-Specific OFOs, under the current market conditions, did not result in improved pipeline system conditions.

B. Receipt Point Capacity Allocation Events

Twice during the quarter, on May 5, 2001 and May 17, 2001, PG&E implemented receipt point capacity allocation, or “trimming”, events to manage the extremely high system pipeline inventory. In each case, PG&E initially issued a customer-specific OFO for the day. Additionally, a system-wide OFO was issued on the morning of both May 5 and May 17 for the following days of May 6 and May 18, respectively. Despite these measures, system inventory levels were actually increasing and were forecast to exceed an operationally safe level during the gas day. Therefore, a receipt point capacity allocation was implemented at all upstream pipeline interconnects during the Intraday1 nomination cycle³ to reduce the incoming gas supply, and thereby reduce the pipeline inventory levels.

³ The Intraday1 nomination cycle is the third nomination cycle for the gas day.

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During the May 5 receipt point capacity allocation, all as-available Baja and Redwood path transmission service was reduced to zero. All firm Baja and Redwood path transmission service was reduced by slightly less than 3%, to approximately 97% of the original scheduled receipt quantities. This resulted in an on-system supply reduction of approximately 380 MMcf for the day. The end of the day pipeline inventory was reduced to 4,409 MMcf for May 5 (from a beginning of the day forecast of 4,880 MMcf). While the receipt point capacity allocation did reduce the pipeline inventory to an acceptable level, continued forecast over-deliveries resulted in a third consecutive OFO being called for May 7.

During the May 17 receipt point capacity allocation, as-available transmission service was reduced by approximately 50%. Firm transmission service scheduled during the Timely nomination cycle⁴ was not affected during this event. The net result of this receipt point capacity allocation event was an on-system supply reduction of approximately 200 MMcf for the day. The end of the day pipeline inventory was reduced to 4,493 MMcf for May 17 (from a beginning of the day forecast of 4,717 MMcf). Again, the receipt point capacity allocation did reduce the pipeline inventory to an acceptable level during the gas day; however, continued forecast over-deliveries resulted in a third consecutive OFO being called for May 19.

Both receipt point capacity allocation events were required on days when customer-specific OFOs were in effect. The customer-specific OFO did not produce the desired result of reducing the system inventory to an acceptable level. Contrary to the purpose of the OFO, the pipeline inventory actually increased on both occasions when the high inventory, customer-specific OFO was called.

The receipt point capacity allocation event was necessary to reduce the pipeline inventory to acceptable levels. This also led PG&E to call system-wide OFOs for the remainder of the quarter, even though the customer-specific OFO criteria were met on nine occasions.

III. DETAILED IMBALANCE DATA

Appendix A shows the imbalance detail for each balancing entity for each OFO day and the three days prior to the OFO.⁵ This includes the daily supply, usage and imbalance quantities based on billing data.⁶

Appendix A also shows which entities were targeted for customer-specific OFOs and which entities met the following four criteria for significant contributors to each OFO event:

- Total imbalance on 3-prior days exceeds 10 percent and 5,000 Dth. (This definition of significant contributor is specified in Section B.3.b of the OFO Settlement.)

⁴ The Timely nomination cycle is the first nomination cycle for the gas day.

⁵ See Section C.1.f.(1), page 5, of the OFO Settlement.

⁶ The billing data for CPGs is based on their "Determined Usage", which is the forecast on the morning of flow day.

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- Total imbalance on 3-prior days exceeds 5,000 Dth.
- Total imbalance on 3-prior days exceeds 10 percent of usage.
- During a Customer-Specific OFO, both the imbalance and the supply increase during a high inventory OFO (or decrease during a low inventory OFO) by over 5,000 Dth on the OFO day.

The last three measures are added to provide more information for evaluating which entities may be contributing to an OFO event.

Appendix B contains detailed data for each OFO event for pipeline imbalances, net market center imbalances, pipeline balancing provided by allocated “balancing” storage, and pipeline inventory levels based on operating data.⁷ Also included is a full description of each data element shown in the tables.

IV. DISCUSSION

This section of the OFO Report provides PG&E’s comments and observations of the data presented, and also offers PG&E’s recommendations for possible change.⁸

A. Effectiveness of Customer-Specific versus System-Wide OFOs

Table 2 shows the aggregate OFO Day imbalances for all balancing entities, using the data in Appendix A. PG&E’s objective in calling a high inventory OFO is to reduce the overall pipeline inventory level. As indicated in Table 2, this was generally accomplished when a system-wide OFO was called. However, the aggregate customer imbalance continued to increase the system inventory when customer-specific OFOs were called.

Additionally, the net response to the customer-specific OFOs on May 5 and May 17 were greatly influenced by the receipt point capacity allocation event that occurred on the same day. Without these receipt point capacity allocation events, the net-imbalance would have reflected an even greater positive number. As discussed earlier in this report, the receipt point capacity allocation reduced the overall supply receipts by about 380 MMcf on May 5 and 200 MMcf on May 17.

⁷ This data is required by Sections C.1.f.(2), (3), (4), and (5) of the OFO Settlement.

⁸ The OFO Settlement Agreement specified that the quarterly OFO report would contain “any proposed changes to any OFO and balancing procedures and/or methodology addressed in this Settlement.” See Section C.1.f.6, page 5.

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Table 2: OFO Day – Net Total Customer Imbalances

High Inventory OFO Events							
System-Wide OFOs				Customer-Specific OFOs			
Date	Toler. Band	Net Imbalance, Dth	Net %	Date	Toler. Band	Net Imbalance, Dth	Net %
May 6	2%	-45,038	-2.3%	Apr 1	3%	68,378	+3.6%
May 7	2%	-73,106	-3.6%	May 5	11%	97,504	+5.2%
May 12	0%	-103,924	-6.3%	May 11	2%	67,510	+3.9%
May 13	0%	-71,160	-4.1%	May 17	1%	80,081	+4.2%
May 14	15%	-61,460	-3.2%				
May 18	0%	-139,666	-7.3%				
May 19	0%	-190,879	-10.5%				
May 26	1%	1,439	0.1%				
May 27	1%	-17,305	-1.0%				
May 28	1%	-116,305	-6.4%				
May 30	8%	-114,128	-6.0%				
Jun 2	6%	62,228	+3.5%				
Jun 3	1%	-48,470	-2.6%				
Jun 7	2%	-104,815	-5.1%				
Jun 9	7%	28,304	+1.6%				
Jun 10	5%	-28,084	-1.5%				
Jun 14	4%	-164,829	-8.2%				
Jun 15	8%	-115,271	-6.1%				
Jun 30	8%	85,819	+4.8%				
Average		- 64,034		Average		+78,368	

Recommendation: Recent experience with customer-specific OFOs under high inventory conditions has not resulted in satisfactory relief to pipeline inventory levels. In fact, on three recent occasions (March 20, May 5 and May 17, 2001) the ineffectiveness of the customer-specific OFOs required PG&E to implement receipt point capacity allocations. As a result, since the end of May, PG&E has decided to call system-wide OFOs even when the customer-specific OFO criterion was met.⁹ By calling system-wide OFOs, PG&E expects to avoid the disruptive market impacts associated with a receipt point capacity allocation. Given the expected summer market conditions, when pipeline inventory levels dictate the need for a high inventory OFO, PG&E plans to call only system-wide OFOs. For low inventory OFOs, PG&E will continue to apply and use the customer-specific OFO criteria.

⁹ The operational flexibility to call system-wide OFOs is provided in Section C.3.b.9 of the OFO Settlement.

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B. California Production Imbalances

California gas production is currently providing about 200 MDth per day of gas supply to the PG&E system. Imbalances between the scheduled nominations and actual gas production from California gas wells delivering into the PG&E pipeline system are managed through California Production Balancing Agreements (CPBAs). The CPBA provides a monthly balancing mechanism at the gas well meter. While there are numerous differences, the CPBA generally works in much the same manner as an NBAA, which provides aggregate monthly balancing for a group of end-use customer meters. A significant difference is that CPBAs are not subject to OFOs and, therefore, do not pay OFO noncompliance charges.

CPBAs continue to adversely contribute to operational imbalances. During the past quarter, these daily imbalances were typically created when the nominating agent decreased the supply nomination without a corresponding reduction in the physical gas supply flowing into the CPBA. Table 3 shows the net aggregate imbalance from the California gas production wells delivering supply into the PG&E pipeline system for each of the OFO days during this report period. The significant level of the CPBA imbalances was a contributing factor to the frequent series of consecutive OFOs that were called during the quarter.

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Table 3: California Production Imbalances on OFO Days

OFO Date	OFO Type	OFO Tolerance Band	CA Production Imbalance (Dth)	Percent Imbalance	Exceeds OFO Tolerance Band
April 1	High - CS	3%	36,258	21.6%	X
May 5	High - CS	11%	24,321	14.2%	X
May 6	High - SW	2%	118,305	158.5%	X
May 7	High - SW	2%	109,045	135.2%	X
May 11	High - CS	2%	939	0.5%	
May 12	High - SW	0%	44,190	31.3%	X
May 13	High - SW	0%	68,844	56.5%	X
May 14	High - SW	15%	31,361	20.0%	X
May 17	High - CS	1%	(19,906)	(9.5%)	
May 18	High - SW	0%	(6,051)	(3.1%)	
May 19	High - SW	0%	15,606	9.0%	X
May 26	High - SW	1%	8,286	4.6%	X
May 27	High - SW	1%	29,775	19.0%	X
May 28	High - SW	1%	87,285	89.5%	X
May 30	High - SW	8%	17,201	9.9%	X
June 2	High - SW	6%	37,191	24.3%	X
June 3	High - SW	1%	46,283	35.3%	X
June 7	High - SW	2%	8,672	4.9%	X
June 9	High - SW	7%	52,188	37.5%	X
June 10	High - SW	5%	11,454	6.7%	X
June 14	High - SW	4%	9,133	5.3%	X
June 15	High - SW	8%	35,231	22.9%	X
June 30	High - SW	7%	77,589	84.9%	X

A positive imbalance means more gas was delivered into the pipeline system than was scheduled through the nomination process. A positive imbalance adversely impacts the system during a high inventory OFO. A negative imbalance means less gas was delivered into the pipeline system than was scheduled and has adverse impacts under low inventory OFOs.

On almost all of the OFO days, the net California gas production imbalance exceeded the OFO tolerance band and further contributed to the operational problems that the high inventory OFO was trying to resolve.

Recommendation: PG&E will reiterate the daily balancing obligations for the production and nomination of California gas wells with both the authorized agents managing the CPBAs and the well operators. PG&E intends to take steps with those CPBAs that continue to create large imbalances on high inventory OFO days to minimize those imbalances and reduce their impact on other market participants. PG&E is reviewing a variety of

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alternatives, including physically reducing gas well production to match nomination levels.

V. CONCLUSIONS

There was a significant increase in the frequency of OFO events during the last half of the recent quarter. This was caused by a general and consistent pattern of over-delivery of supply by shippers and customers.

The ineffectiveness of customer-specific OFOs has led PG&E to call system-wide OFOs even when the customer-specific criteria was met. PG&E believes that calling the system-wide OFO is necessary to avoid the more disruptive receipt point capacity allocation in order to maintain safe operating pressure in the pipeline system.

CPBA imbalances on OFO days have exacerbated pipeline conditions and contributed to the need for OFOs on consecutive days. PG&E will continue to work with the authorized agents managing the CPBAs and the well operators to reduce the impact of the gas production imbalances on other market participants.

Appendix A: Detailed OFO Imbalance Report by Balancing Entity

1. Definition of Balancing Entity Types

There are three types of Balancing Entities on the PG&E system. The first type is a Core Procurement Group (CPG), which includes PG&E's Core Procurement Department and all Core Transport Agents (CTAs) – also called Gas Energy Service Providers. These are indicated as 'CTARGAS'.

The second type is an agent or gas marketer managing a Noncore Balancing Aggregation Agreement (NBAA). These are indicated as "NBAA." An NBAA aggregates a group of noncore end-use customers into one entity for balancing purposes. An NBAA group can range from several customers up to over one hundred individual end-use customers. The NBAA agent is financially responsible for all imbalance charges, including OFO noncompliance charges.

The third type is an individual noncore end-use customer. These individual customers maintain an imbalance account under their Natural Gas Service Agreement, indicated as "NGSA." Sometimes the balancing for these NGSAs is managed by the end-use customer, and sometimes by an agent or marketer; however, each is required to balance individually during an OFO event.

2. Imbalance Data Elements

The data in this Appendix is organized by each of the OFO events during the quarter. This includes the daily supply, usage and imbalance quantities for the OFO Day and 3-days-prior for each balancing entity. Also, targeted entities during customer-specific OFOs and various calculations of significant contributor are included, along with a summary of these by balancing entity for all OFOs combined.

The following describes the data elements in the Appendix A tables:

Balancing Entity ID #: Each balancing entity is identified by a numerical identifier and the type of balancing entity, and not by name. If a customer operates two separate balancing entity accounts (e.g. an NBAA and a CPG (or CTARGAS)), the same numerical identifier is used for each entity.

Balancing Entity Type: (See discussion above.)

Supply Scheduled Volume: The quantity of gas supply, in decatherms (Dths), received into the PG&E system for delivery to the end-use customer(s) for that balancing entity. This quantity is the result of the gas supply nomination process. This process is the same for all types of balancing entities.

Usage: The quantity of gas, in decatherms (Dths), that is delivered off the PG&E system to the end-use customer(s) for that balancing entity. This is the demand deemed

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Appendix A – Detailed OFO Imbalance Report by Balancing Entity

to be used, in order to determine the daily imbalance. For noncore customers (i.e., NBAA or NGSA), the usage is equal to the actual daily meter reading quantities. For core customers (i.e. CTARGAS) the usage is equal to the Determined Usage for all non-OFO days and is equal to the 24-Hour Forecast for all OFO Days. It is important to note that both the Determined Usage and the 24-Hour Forecast are forecasts that are made 24-hours and 48-hours prior to the end of the gas day, respectively.

Daily Imbalance: This is simply the *Supply Scheduled Volume* minus the *Usage*. A positive number indicates an over-delivery of supply (more supply than demand) and a negative number indicates an under-delivery of supply (less supply than demand).

3-Day Prior Net Imbalance: The sum of the *Daily Imbalances* for the three days prior to the OFO Day.

3-Day Prior Percentage Imbalance: The *3-Day Prior Net Imbalance* divided by the total *Usage* for the three days prior to the OFO Day. This represents the average percentage imbalance for these three days.

Targeted under Customer-Specific OFO: This column indicates those balancing entities that were targeted under each customer-specific OFO.

Significant Contributor: Two significant contributor columns are shown. The first indicates those balancing entities with total imbalances greater than 5,000 Dth and 10 percent of its usage in the three days leading up to each system-wide or customer-specific OFO, as defined in the OFO Settlement.¹⁰ The second significant contributor column identifies those balancing entities which increased both their supply and imbalance by more than 5,000 Dth on the OFO day, during a customer-specific OFO.

¹⁰ OFO Settlement, Section B.3.b, page 3.

Subject to Rule 51 of the CPUC Rules of Practice and Procedure, Rule 601 et seq. of the FERC Rules of Practice, Rule 408 of the Federal Rules of Evidence, and Section 1152 of the California Evidence Code

Appendix B: Detailed Pipeline Operating Data

1. Data Background:

All data in this Appendix related to gas volumes are expressed in thousands of decatherms (Mdt) and are for the gas day, which begins at 7:00 AM on the date and ends at 7:00 AM on the following day. This is operating data that is compiled approximately 4 hours after the end of the gas day and represents the best information about flows, volumes, and inventories available at that time.

The ending inventory on the OFO day will often not exceed the criteria for an OFO. OFOs are called using the forecast of the ending inventory on the OFO day, and for this reason, the actual ending inventory will likely be different than the forecast ending inventory if the OFO has been effective.

The following sign convention has been employed in the spreadsheet. Any activity that decreases the pipeline system inventory such as a negative customer imbalance or a storage injection is shown with a (-) sign. Activities that increase the pipeline system inventory are positive and are shown without a sign.

2. Data Elements

Beginning Inventory: The calculated volume of gas in the PG&E pipeline system at the beginning of the gas day.

Ending Inventory: The calculated volume of gas in the PG&E pipeline system at the end of the gas day. This forecast of ending inventory is used to determine whether an OFO is called, and is forecast and reported on the Pipe Ranger 5 times each day.

Pipeline Storage Balancing: The PG&E storage that was used to reduce the affect of imbalances on changes in the pipeline system inventory. This value is calculated by subtracting the scheduled storage activity including core, noncore, and GGMC Park/Lend activity from the net PG&E storage activity. There is 50 MMcf of daily storage injection and 70 MMcf of daily storage withdrawal assigned to the pipeline storage balancing activity.

Total Customer Imbalance: The total customer imbalance is the total supply scheduled for on-system customers minus the total on-system customer usage. The usage for noncore customers is based on operational meters. The usage for core customers is based on the Determined Usage. The Core Determined Usage is derived from the core load forecast prepared at approximately 7:30 AM at the beginning of the gas day.

Pipeline Imbalance Detail: This calculation is provided to show the contribution of core load forecast error on the day of gas flow to the total pipeline imbalance.

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Appendix B – Detailed Pipeline Operating Data

Due to Core Forecast Differences: This is the difference between the Core Determined Usage which is forecast at the beginning of the gas day and the Core calculated usage. The Core usage is calculated approximately four hours after the end of the gas day using daily data on interconnect and storage volumes, noncore daily usage volumes from the Automatic Meter Reading (AMR) system, and the change in the pipeline system inventory.

All Other Causes: This represents the sum of all the other contributors to pipeline imbalances including imbalances with interconnecting pipelines and storage facilities (other than PG&E), imbalance in California Gas Well production, shrinkage over or under collection.

GGMC Net Scheduled Pack Draft: This value is the net sum of the scheduled nominations for PG&E storage activity for scheduled GGMC Parks, Repays, Lends, and Unparks for the gas day. When the value is a negative (-) it means that storage injection is required to offset a net Pack (Park or Repay) position.

GGMC Net Pack Allocated: This is the PG&E storage injection capacity available to GGMC to facilitate their daily parking (Parks and Repays) activity. The amount of daily parking is limited to this quantity so that this activity does not adversely increase the pipeline system inventory and represents one of the measures to determine whether there was an imbalance created by the GGMC on any given day.

GGMC Net Draft Allocated: This is the PG&E storage withdrawal capacity available to GGMC to facilitate their daily lending activity. The amount of daily lending is limited to this quantity so that this activity does not adversely decrease the pipeline system inventory and represents one of the measures to determine whether there was an imbalance created by the GGMC on any given day.

GGMC Imbalance: This is determined by calculating the amount the *GGMC Scheduled Pack Draft* is outside the *Allocated Pack-Draft* range. These values represent the impact of the GGMC on the pipeline system inventory on any given day.