

2018 Customer Forum

May 9, 2018



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Agenda

- Introductions
- Antitrust Disclaimer
- High OFO Review
- Low OFO Review
- System Reliability Support Activity Results
- Post Forum Report / Next Steps

Antitrust Disclaimer

AMERICAN GAS ASSOCIATION ANTITRUST COMPLIANCE GUIDELINES

Introduction

The American Gas Association and its member companies are committed to full compliance with all laws and regulations, and to maintaining the highest ethical standards in the way we conduct our operations and activities. Our commitment includes strict compliance with federal and state antitrust laws, which are designed to protect this country's free competitive economy.

Responsibility for Antitrust Compliance

Compliance with the antitrust laws is a serious business. Antitrust violations may result in heavy fines for corporations, and in fines and even imprisonment for individuals. While the General Counsel's Office provides guidance on antitrust matters, you bear the ultimate responsibility for assuring that your actions and the actions of any of those under your direction comply with the antitrust laws.

Antitrust Guidelines

In all AGA operations and activities, you must avoid any discussions or conduct that might violate the antitrust laws or even raise an appearance of impropriety. The following guidelines will help you do that:

- **Do** consult counsel about any documents that touch on sensitive antitrust subjects such as pricing, market allocations, refusals to deal with any company, and the like.
- **Do** consult with counsel on any non-routine correspondence that requests an AGA member company to participate in projects or programs, submit data for such activities, or otherwise join other member companies in AGA actions.
- **Do** use an agenda and take accurate minutes at every meeting. Have counsel review the agenda and minutes before they are put into final form and circulated and request counsel to attend meetings where sensitive antitrust subjects may arise.
- **Do** provide these guidelines to all meeting participants.

- **Do not, without prior review by counsel,** have discussions with other member companies about:
 - ♦ your company's prices for products, assets or services, or prices charged by your competitors
 - ♦ costs, discounts, terms of sale, profit margins or anything else that might affect those prices
 - ♦ the resale prices your customers should charge for products or assets you sell them
 - ♦ allocating markets, customers, territories products or assets with your competitors
 - ♦ limiting production
 - ♦ whether or not to deal with any other company
 - ♦ any competitively sensitive information concerning your own company or a competitor's.
- **Do not** stay at a meeting, or any other gathering, if those kinds of discussions are taking place.
- **Do not** discuss any other sensitive antitrust subjects (such as price discrimination, reciprocal dealing, or exclusive dealing agreements) without first consulting counsel.
- **Do not** create any documents or other records that might be misinterpreted to suggest that AGA condones or is involved in anticompetitive behavior.

We're Here to Help

Whenever you have any question about whether particular AGA activities might raise antitrust concerns, contact the General Counsel's Office, Ph: (202) 824-7072; E-mail: GCO@aga.org, or your legal counsel.

American Gas Association
Office of General Counsel
Issued: December 1997
Revised: December 2008

Recording of this Customer Forum is prohibited

High OFO Review

High Operational Flow Order (High OFO)

- A High OFO is declared when SoCalGas determines that expected receipts will exceed total forecasted system capacity (including storage injection capacity and latest off-system scheduled quantities) for a pending flow day.
- SoCalGas uses the on-system scheduled quantities from the latest scheduling cycle to determine expected system receipts for the High OFO calculation.

Scheduled Quantities Used for High OFO

Cycle	Scheduled Quantity Used for High OFO Calculation
Timely	Prior Day, Evening Cycle
Evening	Current Day, Timely Cycle
Intraday 1	Current Day, Evening Cycle
Intraday 2	Current Day, Intraday 1 Cycle
Intraday 3	Current Day, Intraday 2 Cycle

- On High OFO days, SoCalGas will confirm nominations up to the total net system capacity for Intraday 1 (Cycle 3), Intraday 2 (Cycle 4), and Intraday 3 (Cycle 5); [and during the Intraday 3 cycle when a High OFO event is not called and nominations exceed system capacity].
- SoCalGas will not declare a High OFO on Intraday 3 (Cycle 5), but will limit the confirmations to the total net system capacity as it does on all other days.

High OFO Review: April 2017 – March 2018

- 112 High OFO events during Report Period.
- 14% increase compared to previous reporting period.
- High OFO procedures will change after the Aliso Canyon Turbine Replacement Project goes into service.
 - TCAP Phase 1 Settlement condition.
 - See SoCalGas Advice Letter 4997-A for tariff markup.

High OFO Comparison

2017 Forum Report

Cycle 1	52
Cycle 2	14
Cycle 3	24
Cycle 4	08

Total	98
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2018 Forum Report

Cycle 1	27
Cycle 2	28
Cycle 3	37
Cycle 4	20

Total	112
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Low OFO Review

Low Operational Flow Order (Low OFO)

- A Low OFO is declared if, on a day prior to this Gas Day, in the sole judgment of Gas Control, the system forecast of storage withdrawal used for balancing exceeds the withdrawal capacity allocated to the balancing function.

Low OFO Review: April 2017 – March 2018

Stages Declared

- Stage 1 37
- Stage 2 47
- Stage 3 17
- Stage 4 2

Total	103
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Tolerance Percentages Declared

- All Low OFOs were declared with a -5% Daily Imbalance Tolerance.

Low OFO Comparison

2017 Forum Report

Cycle 1	---
Cycle 2	67
Cycle 3	39
Cycle 4	---

Total	106
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2018 Forum Report

Cycle 1	---
Cycle 2	72
Cycle 3	31
Cycle 4	---

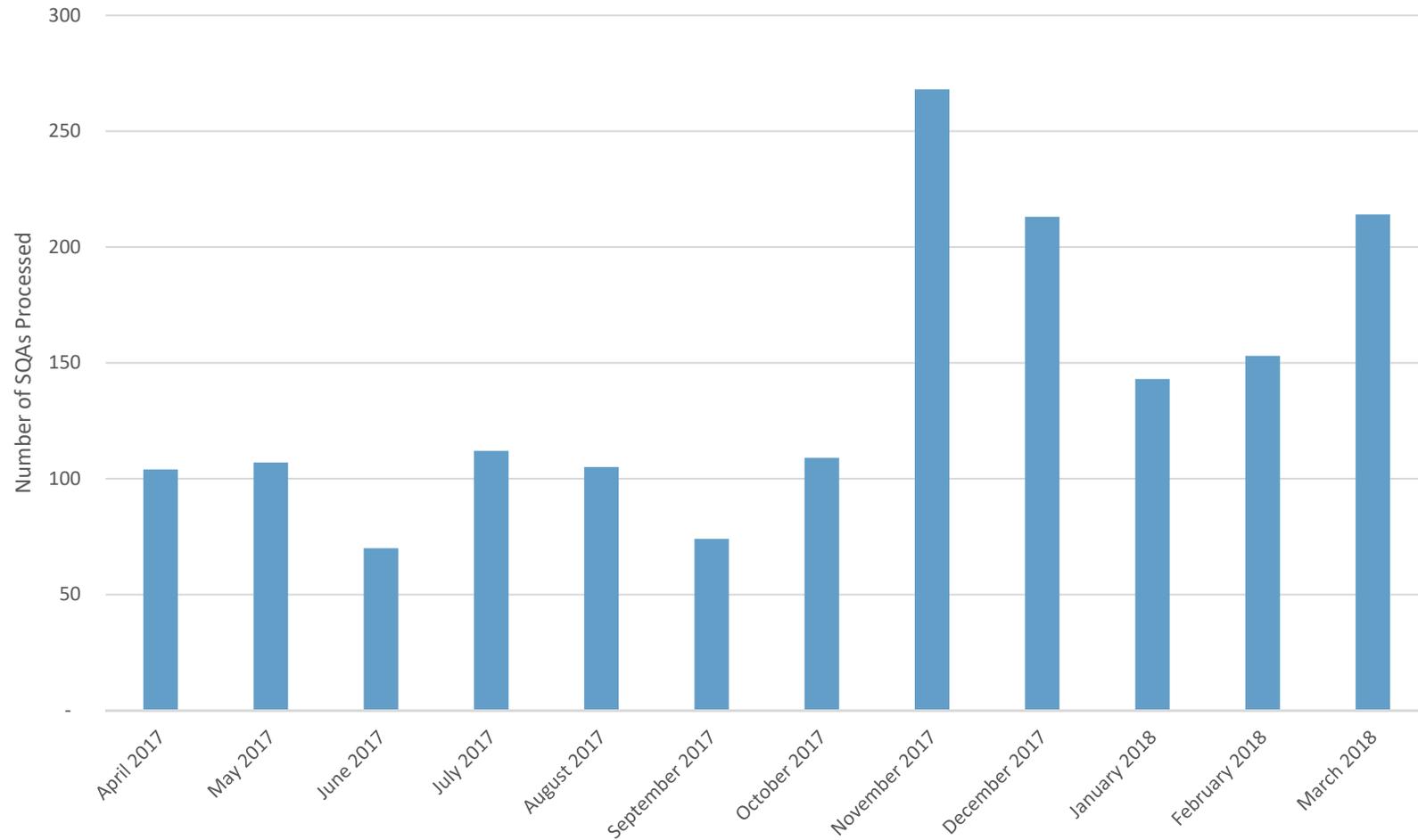
Total	103*
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*The Ninth Annual Report of System Reliability Issues (2018 Customer Forum Report) stated an incorrect count of 102.

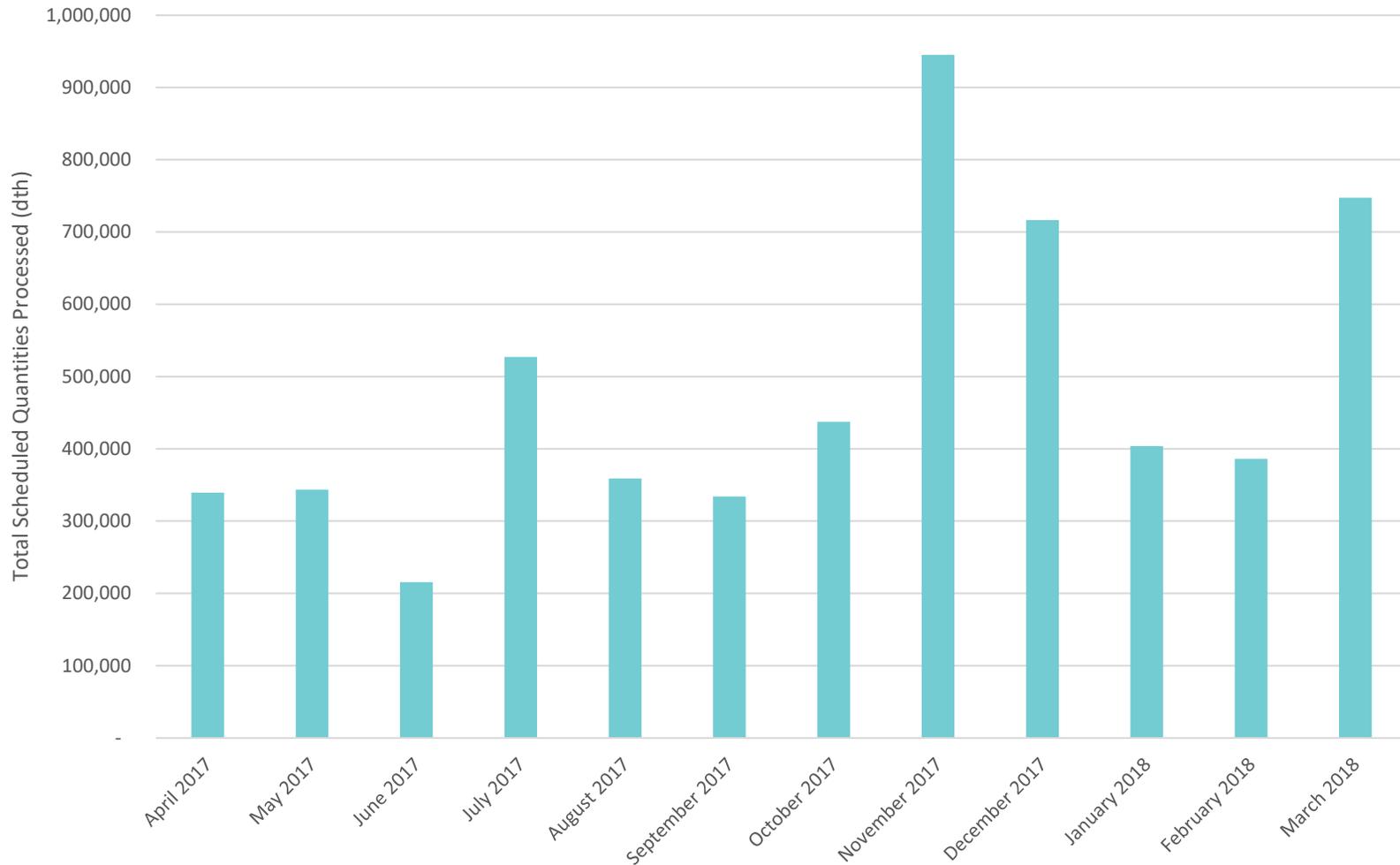
OFO Day Scheduled Quantity Adjustments

- Scheduled quantities can be traded from one Balancing Agent to another Balancing Agent for any OFO day.
- California Producer pools can trade scheduled quantities with other California Producer pools.
- A scheduled quantity adjustment (SQA) is not an imbalance trade.
- Imbalances are calculated at the end of the month by comparing billing quality meter usage to the final scheduled quantities for each day.

OFO Day Scheduled Quantity Adjustments (Number of SQAs Processed)



OFO Day Scheduled Quantity Adjustments (Total Scheduled Quantities Processed)



OFO Day Scheduled Quantity Adjustments

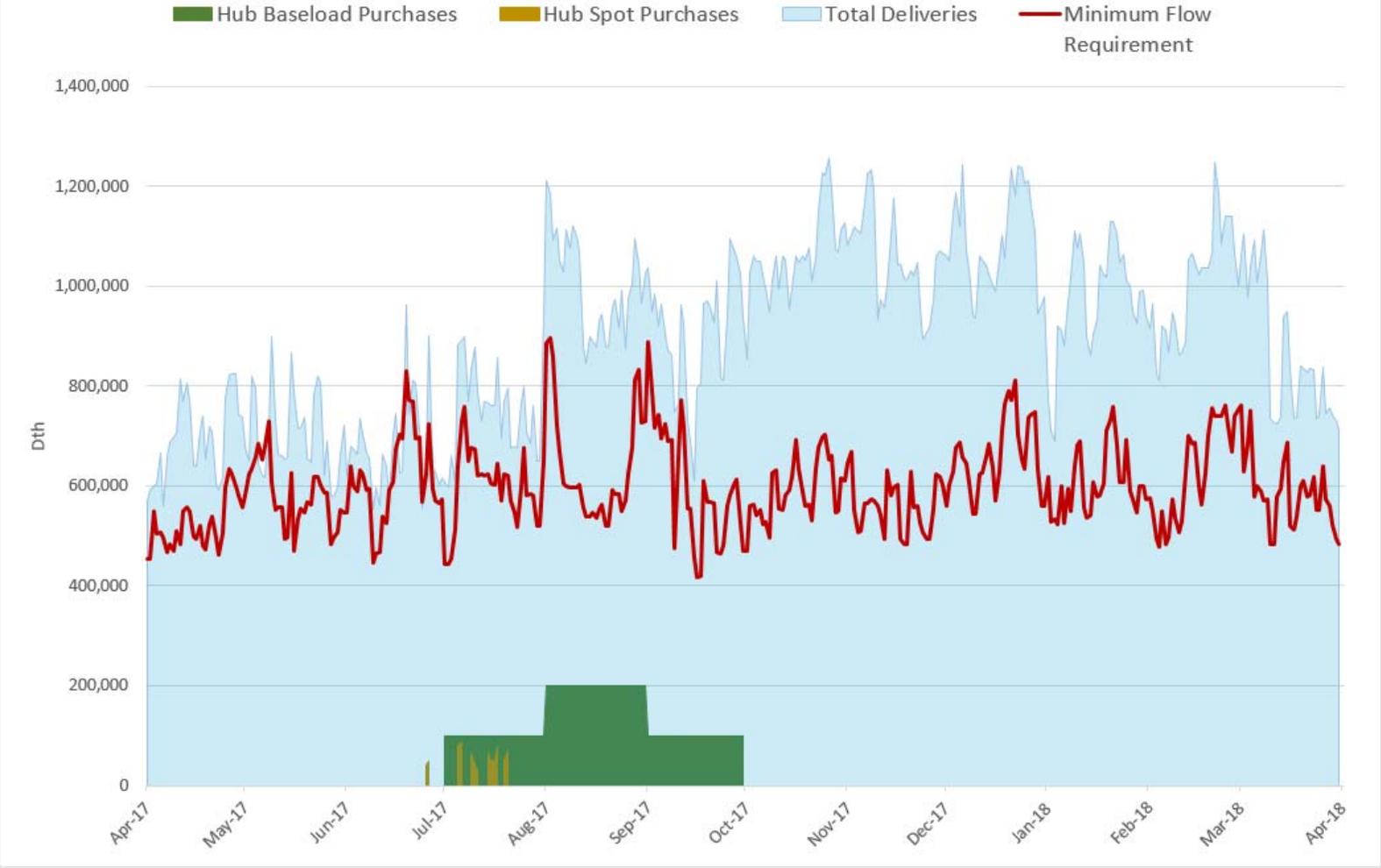
- The OFO day SQAs are a time consuming, manual process.
- SQA requests for a given gas day must be submitted by both counterparties no later than 9 PM Pacific Time the next business day.
- Each Balancing Agent involved in an SQA must have a scheduled quantity in ENVOY.
- Each Balancing Agent must have at least a zero quantity nomination in order to implement an SQA for an OFO day.
- No nomination = No SQA.
- Adjustments into or out of storage contracts are not allowed.

System Reliability Support Activity Results

Southern System Reliability (SSR) Purchases and Interruptible BTS Discounts

	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	2017- 2018
Purchases (MDth)	1,045	3,015	16,989	42,879	31,311	33,309	45,349	13,354
Net Cost (\$/Dth)	3.63	0.36	0.37	0.36	0.13	0.10	0.20	0.07
SRMA Cost (\$MM)	3.8	1.1	6.3	15.5	4.1	3.3	9.1	0.9
BTS Discounts (\$MM)	0	5.5	8.6	7.9	0.4	0	0.1	0
Total (\$MM)	3.8	6.6	14.9	23.4	4.5	3.3	9.2	0.9

April 2017 - March 2018 Southern System Deliveries



Post-Forum Report / Next Steps

Post-Forum Report / Next Steps

- The Post-Forum Report will summarize the matters discussed here; identify action items, tariff changes, and procedural modifications that we agree are necessary; include descriptions of proposals presented by meeting participants.
- Any proposals made that are rejected by SoCalGas will be included in the Post-Forum Report.
- A draft Post-Forum Report will be issued to the Forum participants for review by May 30, 2018 with a revised draft to be issued by June 13, 2018.
- The Post-Forum Report will be filed by July 6, 2018.

Storage Injection Enhancement Plan

- Beginning on Gas Day April 9, 2018, portions of the storage injection capacity allocated to the system balancing function have been available for nomination on Timely Cycle.
- The Net Storage Injection capacity will vary throughout the day based on the System Operation's utilization of the system balancing injection capacity.
- The Net Storage Injection capacity will not fall below the capacity that was made available for Timely Cycle.
- See Advice Letter 5275-A for more details.

Summer 2018 Outlook Summary

- SoCalGas expects its current pipeline outages to extend through at least the peak EG summer demand period.
- With these pipeline outages, SoCalGas will be challenged to fill storage inventory for the upcoming winter season.
 - Insufficient receipt capacity to both serve summer customer demand and fill storage.
- Without the use of Aliso Canyon, SoCalGas can support a summer EG demand of 1.7 to 1.8 BCFD. With a total system capacity of 3.2 to 3.4 BCFD.
- Greater use of Aliso Canyon can mitigate curtailments and increase storage inventories in the other storage fields.

2018 Summer “Peak” Demand Forecast

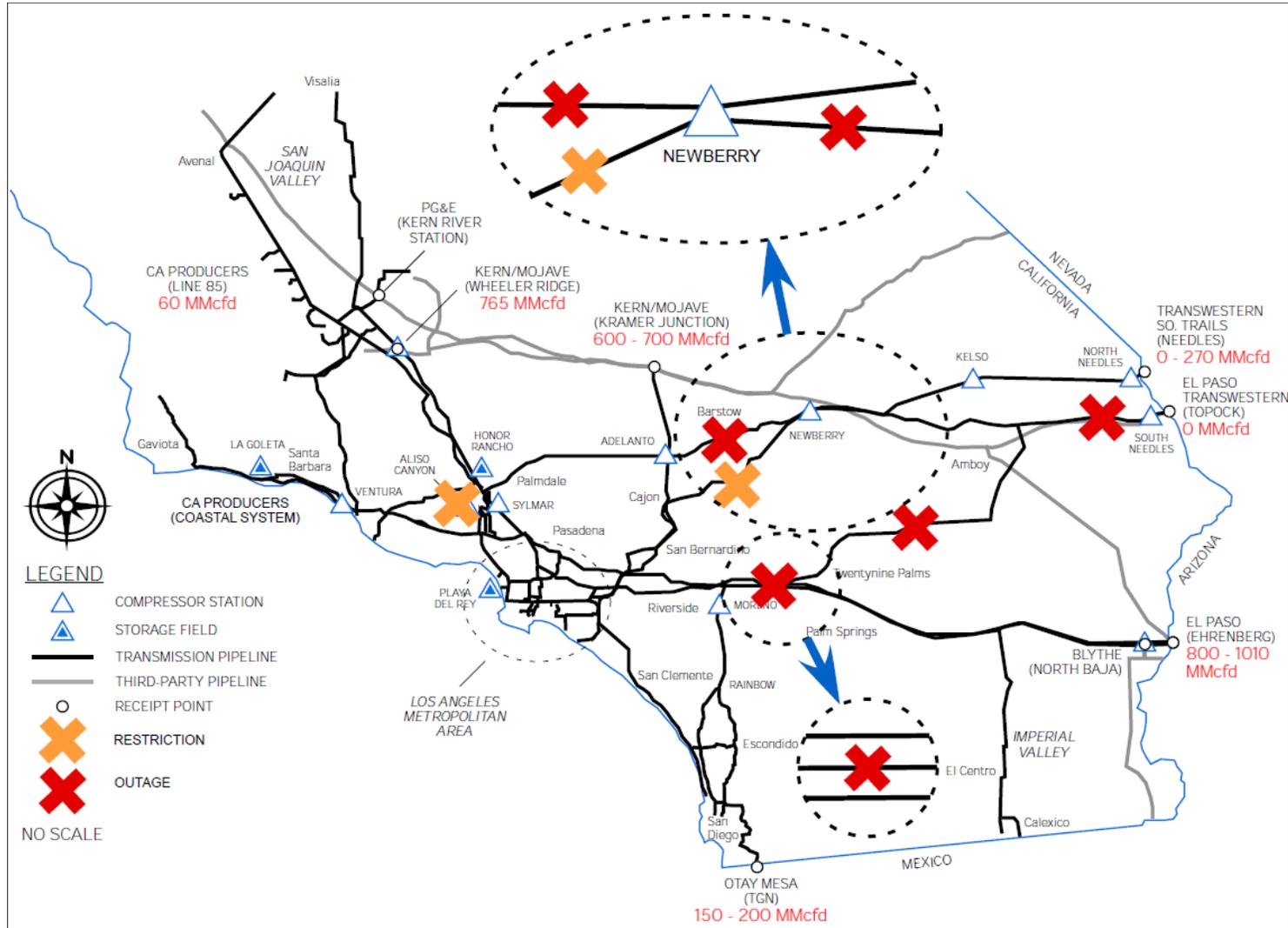
CUSTOMER TYPE	SUMMER DEMAND (BCFD)
Core	0.770
Noncore, Non-Electric Generation	0.770
Noncore Electric Generation (EG)	1.971
Total	3.511

- Average core/non-EG noncore summer demand.
- SoCalGas EG demand forecast derived from 2017 peak summer demand.
- CAISO/LADWP technical assessment forecasts a minimum peak summer EG gas demand range of 1.4 to 1.8 BCFD depending on available import supplies and contingencies.

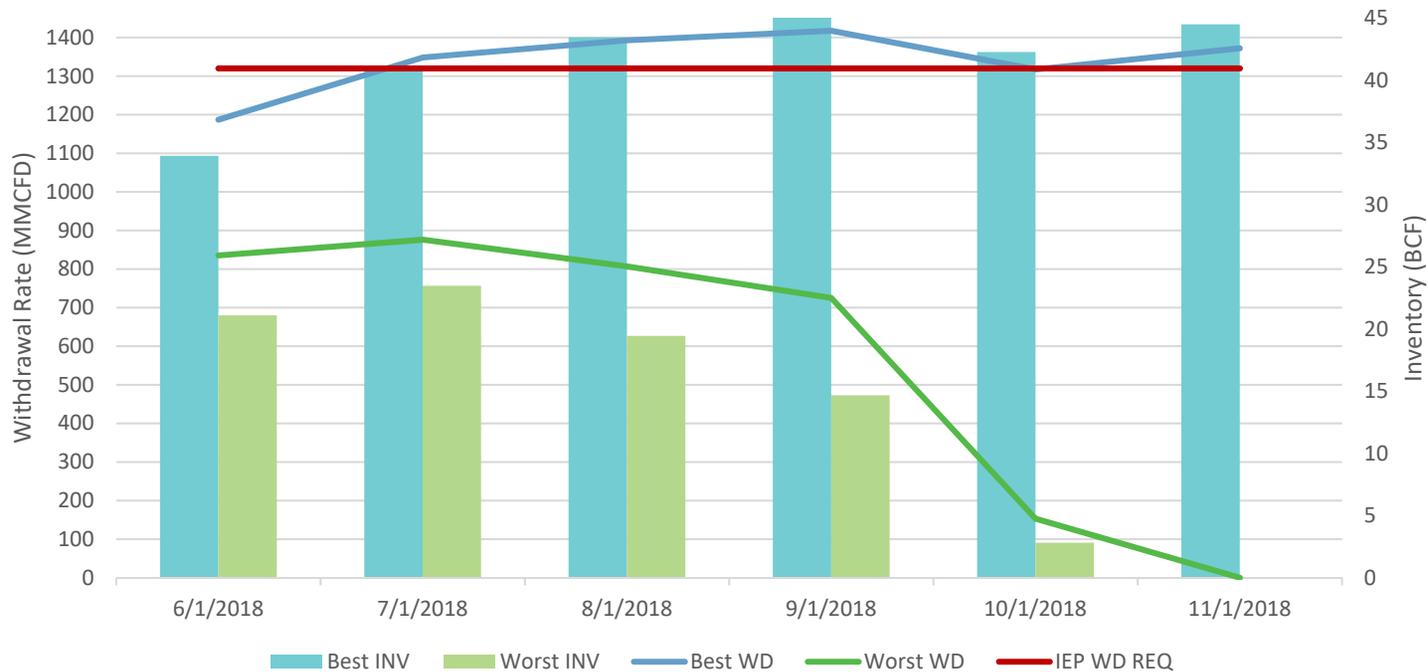
SoCalGas Summer Receipt Capacity

Receipt Point	“Best Case” Supply (MMcfd)	“Worst Case” Supply (MMcfd)
Blythe	1,010	800
Otay Mesa	200	150
North Needles	270	0
Topock	0	0
Kramer Junction	600	700
Wheeler Ridge / Kern River Station	765	765
California Production	60	60
Total Pipeline Receipts	2,905	2,475
Assume 85% Utilization	2,478	2,113

SoCalGas Current System Outages



Summer Storage Assessment (Non-Aliso)



- “Best Case” pipeline supplies allow for maintaining the IEP directive of 1,320 MMcfd of withdrawal through the summer.
- “Worst Case” pipeline supplies are insufficient for demand.
 - Non-Aliso fields are completely depleted of inventory in October.
 - 95% receipt point utilization improves inventory, but 1,320 MMcfd of withdrawal cannot be maintained through the peak summer period.

Maintaining Summer Energy Reliability

- SoCalGas remains focused on increasing its storage inventory.
 - Advice Letter 5275-A filed April 20, 2018 to further enhance storage injection capability to increase inventory.
- SoCalGas will continue to coordinate operations with CAISO and LADWP.
- SoCalGas will use OFOs and the Aliso Canyon Withdrawal Protocol which includes curtailments.
- Maintenance will continue to be scheduled during periods of low demand except for identified safety issues or regulatory requirements.
- SoCalGas is still reviewing the agencies' technical assessment and has some concerns with regards to the assumptions and conclusions and the viability and practical implementation of the suggested mitigation measures.



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