

RULE NO. 41
UTILITY SYSTEM OPERATION

Sheet 1

The Utility’s operational organization, procedures, and reporting requirements are described herein.

STRUCTURE, PROCEDURES, AND PROTOCOLS

1. The mission of the Utility System Operator is to maintain system reliability and integrity while minimizing costs at all times.
2. The term “Utility System Operator” as defined in Rule No.1 denotes all of the applicable departments within Southern California Gas Company and San Diego Gas & Electric Company responsible for the physical and commercial operation of the pipeline and storage systems specifically excluding the Utility Gas Procurement Department. The Utility System Operator’s organizational structure is described below.

The daily overall physical transmission and storage system reliability operations within the Utility System Operator are conducted by the Transmission & System Operations Department, which is located in the Field Services organization. The Transmission & System Operations Department contains the Gas Control Department and the Gas Scheduling Department. The activities involved in meeting any physical flowing gas supply requirements as determined by the Gas Control Department are conducted by the Operational Hub, which is located in the Storage and Hub Products Department within the Energy Markets and Capacity Products Department. The Energy Markets and Capacity Products Department is located in the Engineering & Operations Staff organization. The Field Services and Engineering & Operations Staff organizations report to different Vice Presidents.

3. The Gas Control Department is the sole authority for: operating the pipeline and storage system, developing the system sendout (i.e., demand) forecasts to be used for purposes of determining on a daily basis Southern System minimum flow requirements, and for issuing Operational Flow Orders (“OFOs”).
4. The Gas Control Department will fully utilize storage injection capacity prior to issuing an OFO. The Gas Control Department is responsible for calculating forecasted sendout and physical storage injection capacity. For every nomination cycle, the Gas Scheduling Department shall calculate the system capacity as the sum of forecasted sendout, physical storage injection capacity, and available off-system nominations. “Available” off-system nominations are the nominations that have been made by customers and in the SoCalGas scheduling system. The forecasted system capacity shall then be compared to the latest scheduled quantities. The following table summarizes which quantities are used in each cycle for the OFO calculation:

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RULE NO. 41
UTILITY SYSTEM OPERATION

Sheet 2

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STRUCTURE, PROCEDURES, AND PROTOCOLS (Continued)

4. (Continued)

<u>Cycle</u>	<u>Quantity Used for OFO Calculation</u>
1) Timely	Prior Flow Day - Evening Cycle Scheduled Quantity
2) Evening*	Current Flow Day - Timely Cycle Scheduled Quantity
3) Intraday 1	Current Flow Day - Evening Cycle Scheduled Quantity
4) Intraday 2	Current Flow Day - Intraday 1 Cycle Scheduled Quantity

An OFO may be issued only if the level of quantities, from the table above, exceeds the forecasted system capacity. System linepack will not be part of the formula used to determine when an OFO shall be issued. The conditions for issuing an OFO are summarized below.

An OFO is issued if Forecasted System Capacity < Scheduled Quantities.

Where,

$$\begin{aligned} \text{Forecasted System Capacity} = & \text{Forecasted Sendout} \\ & + \text{Physical Storage Injection Capacity} \\ & + \text{Available Off-System Nominations} \end{aligned}$$

* The Utility will provide a minimum one-hour notice prior to the Evening Cycle nomination deadline when calling an Evening Cycle OFO.

5. The minimum flowing supply for the Southern System is a function of the forecasted gas demand for the Southern System, including SDG&E demand, less the capability to provide additional supplies to the Southern System from the Northern System or storage via the Chino and Prado crossovers, and other factors, such as but not limited to: the state of the Southern System, demand and supply available on the remainder of the Utility system, and expectations of changing demand patterns. The Gas Control Department estimates the level of demand and the Chino/Prado crossover capability each day. The Utility System Operator will use all of its available transmission facilities to move gas from the Northern System to the Southern System.

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RULE NO. 41
UTILITY SYSTEM OPERATION

Sheet 3

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STRUCTURE, PROCEDURES, AND PROTOCOLS (Continued)

6. The Operational Hub will use the tools established in D.07-12-019 to support the Southern System minimum flow requirement, including the purchase/sale of spot gas supplies and the issuance of "Requests For Offers" (RFOs) for proposals to enable the Utility to manage its minimum flow requirements to the Southern System delivery points (in accordance with Sections 9 and 10 below). All purchases and sales of spot gas to support the minimum flow requirement will be made subject to Sections 11 and 12 below. The initial daily quantity of needed supplies will be determined by the Gas Control Department based on the following formula:

Minimum Flowing Supply Requirement minus

Best Available Scheduled Quantities Reflecting Customer Flows into the Southern System =

Additional Supplies Needed by the Gas Control Department

"Best Available Scheduled Quantities" are the last available scheduled quantities. The last available scheduled quantities will be adjusted by the Gas Control Department to account for revised customer nominations for a particular day if the last available scheduled quantities cannot be achieved on the day in question. On those days a lower number would be utilized to reflect expected deliveries. The same would apply if the Gas Control Department becomes aware of pipeline issues such as approaching maintenance or lack of upstream pipeline/supplier performance, in which case the last available scheduled quantities would be reduced to reflect the expected deliveries.

7. Whenever the Gas Control Department determines that additional supplies are needed for the Southern System, the Gas Control Department will promptly contact the Operational Hub for assistance. The Operational Hub will attempt to acquire needed supplies in accordance with Sections 9 through 17 below.

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RULE NO. 41
UTILITY SYSTEM OPERATION

Sheet 4

(Continued)

STRUCTURE, PROCEDURES, AND PROTOCOLS (Continued)

8. The Gas Control Department shall be physically separated from those departments engaging in marketing/sales activities, shall have no knowledge of or involvement in any marketing/sales activities, and shall be strictly concerned with the operation, safety, and integrity of the pipeline and storage system. The Operational Hub shall have no access to non-public customer-specific information other than the information it obtains through its own contracts, negotiations, and discussions with customers. The Gas Control Department may communicate with the Operational Hub to discuss changes to the Southern System minimum flow requirements, circumstances that might require the Operational Hub to obtain supplies, and options to ensure minimum flowing supplies requirements are met. Discussions may also take place with regard to short-term operational needs for flowing supplies to support system reliability elsewhere on the system that may arise to support operations and maintenance (O&M) activities, related pipeline integrity work, or to address a force majeure event such as a line breakage or failure.

PURCHASES AND SALES TO MANAGE MINIMUM FLOW SUPPLIES

9. The Utility shall issue an RFO at least annually for proposals enabling the Utility to manage its minimum flow requirements to the Southern System delivery points for system reliability. The Utility, at its sole discretion, may enter into transactions with one or more RFO respondents to provide the best value to the Utility's customers based upon the Utility's evaluation criteria. The RFO shall not be a binding offer by the Utility to enter into a contract for any product(s) or service(s). The Utility shall reserve the right to reject any or all offers submitted in response to the RFO.
10. Any contract with an RFO respondent will be conditioned on the Utility obtaining the prior approval of the California Public Utilities Commission (CPUC) acceptable to the Utility. Respondent offers will be considered non-binding until a definitive agreement is reached between the respondent and the Utility, and the CPUC issues an order approving the definitive agreement memorializing the terms and conditions of the transaction between the respondent and the Utility.
11. Except for transactions related to the Utility Gas Procurement Department's role as "provider of last resort" (addressed below in Section 12), any gas commodity purchases and sales between the Operational Hub and the Utility Gas Procurement Department or an affiliate of Sempra Energy will occur through an Independent Party, where the counterparties are not known until after the transaction is completed. "Independent Party" refers to gas trading exchanges such as the Intercontinental Exchange (ICE), gas brokers who have been instructed to provide no preference to Sempra affiliates or to the Utility Gas Procurement Department, or open auctions available to all qualified parties conducted by the Operational Hub, in which gas purchases or sales are made with counter-parties that are not known until after the transaction is completed.

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RULE NO. 41
UTILITY SYSTEM OPERATION

Sheet 5

(Continued)

PURCHASES AND SALES TO MANAGE MINIMUM FLOW SUPPLIES (Continued)

12. The Utility Gas Procurement Department will act on a best-efforts basis to provide gas supplies based on the Operational Hub’s request if called upon as a provider of last resort. “Provider of last resort” relates to the circumstance in which the Operational Hub has attempted to use all other available tools, has entered the open market for gas commodity purchases, has been unsuccessful in meeting its need to receive a required volume of flowing supplies at a specific location, and system reliability is therefore jeopardized. If the Operational Hub has exhausted its other options available to acquire the required flowing supplies, it will contact the Utility Gas Procurement Department and request that it provide gas to meet the remaining minimum flow requirement. Such requests will occur as soon as possible during the actual flow day. The Utility Gas Procurement Department will charge the Operational Hub the actual incremental costs incurred to provide the specific supplies. Verification that the Utility has followed this procedure will be included in the annual compliance report provided to the CPUC in conjunction with the Advice Letter addressed in Section 23 below.
13. Standards and criteria for spot purchases or sales of gas commodity for which standards and criteria are not specified in CPUC-approved contracts shall be as follows:
- a. Should it be necessary for the Operational Hub to purchase or sell spot supplies of gas in the day-ahead market, the Operational Hub shall be deemed to have made reasonable (1) spot purchases if the purchase price is less than or equal to 110% of the ICE Wtd Avg Index for the flow date for the relevant trading point and (2) spot sales if the sale price is greater than or equal to 90% of the ICE Wtd Avg Index for the flow date for the relevant trading point.
 - b. Should it be necessary for the Operational Hub to purchase or sell spot supplies of gas in the intraday market, the Operational Hub shall be deemed to have made reasonable (1) spot purchases if the purchase price is less than or equal to 110% of the ICE High for the current flow date for the relevant trading point and (2) spot sales if the sale price is greater than or equal to 90% of the ICE Low for the current flow date for the relevant trading point.

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Sheet 6

(Continued)

PURCHASES AND SALES TO MANAGE MINIMUM FLOW SUPPLIES (Continued)

14. Purchases or sales at prices that are outside the ranges specified in Section 13 (a) and (b) above shall nevertheless be deemed reasonable if the Operational Hub abides by the following procedure: When the Gas Control Department determines that spot purchases are necessary to meet minimum flow requirements, the Operational Hub shall monitor ICE and record the relevant price information, if available, for deliveries of gas at all relevant trading points. If volumes available on ICE meet or exceed the minimum flow requirements, transactions for the volumes offered through ICE shall be deemed reasonable. The Operational Hub may also post an offer/bid on ICE for volumes. When less than the required volumes are available on ICE, the Operational Hub shall contact gas suppliers (other than the Utility Gas Procurement Department or affiliates), request offers for the necessary supplies, and record their offers for gas delivered to the relevant trading points to ensure at least three offers from three different suppliers are available for comparison. The Operational Hub shall compare prices posted on ICE and, if applicable, prices quoted by its supplier contacts, and select the best prices available to meet the quantities required to meet minimum flow requirements. Verification that the Operational Hub has followed this procedure shall be provided to the CPUC in the Annual Compliance Report described in Section 23 below.
15. Purchases and sales other than those described in Section 14 above will not be deemed unreasonable but shall be subject to review and any requests for explanation by the CPUC Energy Division in conjunction with the Annual Compliance Report described in Section 23 below.
16. Standards, criteria and procedures set forth in Sections 13, 14 and 15 apply to Operational Hub's purchases and sales as of April 1, 2009.
17. The Utility shall seek CPUC authority for any additional tools (other than system modifications that can be completed without an application under current rules) necessary to meet the Southern System minimum flow requirement through an application. Any contracts that are not obtained through an RFO process relating to already-approved tools (i.e., gas purchases, gas exchanges) will be submitted to the CPUC for approval by Advice Letter. Advice Letters seeking approval of the Operational Hub contractual arrangements shall identify the order in which contracts will be implemented to ensure system reliability and integrity at least cost.

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RULE NO. 41
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Sheet 7

(Continued)

ACCOUNTING TREATMENT

18. The cost and revenues of Operational Hub transactions (e.g., natural gas purchases, sales, or exchanges resulting from approved contracts) that are necessary to meet minimum flow requirements shall be recorded in the System Reliability Memorandum Account (SRMA). Prospective changes to the types of the Operational Hub natural gas transactions (“tools”) to meet minimum flow requirements shall be considered in conjunction with the annual Utility Customer Forum described below.

UTILITY CUSTOMER FORUM

19. The Utility shall hold an annual Utility Customer Forum (the “Forum”), which shall be held around April - May. The Forum will provide an opportunity for the Utility to provide information on, and to address, the following matters with interested parties:
- i. Review of the timing, method, formulas, and all inputs to formulas by which OFO events are triggered;
 - ii. Review of requests for the Operational Hub to acquire additional supplies to meet minimum flow requirements;
 - iii. Review of Operational Hub purchases/actions to meet minimum flow requirements and plans for the coming year by providing information regarding the individual transactions, including transactions executed pursuant to the Operational Hub contractual arrangements. Transaction-specific information shall identify price, volume, date, delivery/receipt points, and any special terms;
 - iv. Review the need for any additional minimum flow requirements on the Utility system beyond then-current defined requirements;
 - v. Review potential additional tools to support system operations and potential system improvements to reduce or eliminate the need for any minimum flowing supply requirements.
 - vi. Review of the priority rules set forth in Rule No. 30, Section D.3. in the 2012 Forum only.
20. To facilitate an informed discussion of the issues identified in Section 19 above, the Utility shall prepare an annual report (Report) of system reliability issues. The Report shall: (a) identify the need for new minimum flow requirements, (b) identify potential tools and/or infrastructure improvements that can be used to mitigate new or existing reliability problems (e.g. minimum flow requirements and OFOs), and (c) provide information on the matters identified in Section 19 (i) through (v) above.

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