APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY FOR AUTHORITY TO RECOVER VENTURA COMPRESSOR MODERNIZATION PROJECT REVENUE REQUIREMENT IN CUSTOMER RATES AND FOR APPROVAL OF RELATED COST ALLOCATION AND RATE DESIGN PROPOSALS (A.23-08-019)
(DATA REQUEST CalPA-SCG-DR05)
Date Requested: May 10, 2024, Submitted: May 24, 2024
Revised June 11, 2024

Confidential and Protected Materials provided pursuant to PUC Section 583, GO 66-D, D.17-09-023

QUESTION 1: SoCalGas responded to DR-01 Question 2 that "The discharge pipelines for Ventura Compressor Station are [redacted] both with an MAOP of 1000 psig."

SoCalGas responded to DR-01 Question 3(b) noting that "the pipeline exiting the Ventura Compressor Station is operating at a maximum operating pressure of [redacted] psig due to transmission pipeline class location changes downstream of Ventura station."

Given that the pipeline exiting Ventura has a maximum operating pressure limited by the pipeline class location downstream, does SoCalGas expect that it will ever be able to increase the current maximum operating pressure from [redacted] psig to 1000 psig so that it matches the MAOP?

RESPONSE 1:

Yes, SoCalGas plans on restoring the maximum operating pressure to the MAOP.

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QUESTION 2: SoCalGas response to DR-03 Question 7 described how for the stated demand of 160 MMcfd SoCalGas used "a proprietary design program by Neuman & Esser in 2019" to determine that it would require "a four (4) unit configuration".

Below is a table of operational scenarios with varying discharge pressures and demand exiting Ventura compressor station. For the parameters established in each scenario please estimate the minimum number of compressors required, including the horsepower provided by each compressor, to deliver natural gas to meet the scenario's downstream volumetric demand.

Scenarios	Discharge Pressure for pipelines exiting Ventura	Average Volumetric Demand exiting Ventura	Estimated Minimum Number of Compressors Required
1.	1000 psig	160 MMcfd	
2.	1000 psig	150 MMcfd	
3.	1000 psig	140 MMcfd	
4.	1000 psig	130 MMcfd	
5.	1000 psig	120 MMcfd	
6.	1000 psig	110 MMcfd	
7	1000 psig	100 MMcfd	
8.	[redacted] psig	160 MMcfd	
9.	[redacted] psig	150 MMcfd	
10.	[redacted] psig	140 MMcfd	
11.	[redacted] psig	130 MMcfd	
12.	[redacted] psig	120 MMcfd	
13.	[redacted] psig	110 MMcfd	
14.	[redacted] psig	100 MMcfd	

RESPONSE 2:

SoCalGas updated the requested table to include the suction pressure for both summer & winter conditions, which are required to determine the number of compressors needed. SoCalGas used Table 1 from its Application (A.23-08-019 CPCN), page 34, for these parameters.

As shown in the excerpt below, the table identifies the updated design operating parameters for the Proposed Project. The Proposed Project will have summer and winter operating seasons to support the La Goleta storage field and local system demand.

Season	Ambient Temperature (°F)	Suction Pressure (psig)	Discharge Pressure (psig)	Flow Rate (MMcfd)
Winter	55	325	1000	120
Summer	80	450	1000	160

SoCalGas does not have access to the Neuman & Esser (gas compressor vendor) proprietary software. The software is owned and operated by the vendor only and is not publicly available.

SoCalGas requested technical support from Neuman & Esser to calculate the number of compressors needed for each of the requested specified conditions using their proprietary software and the technical information pertaining to the specified compressor. As a courtesy, Neuman & Esser ran the requested scenarios from the data request, and the results can be found in the table below.

The Tables below reflect the number of compressors needed when the plant is operating in Summer or Winter season. The summer operating season table includes the 14 proposed scenarios for volumetric flowrate ranging from 100MMcfd to 160MMcfd covering both 955 psig and 1000 psig discharge pressure cases provided in the question. The 955 psig falls within SoCalGas's proposed station design parameters. The winter operating season table includes 6 scenarios for volumetric flow rate ranging from 100MMcfd to 120MMcfd, again including scenarios for both discharge pressures. As reflected in the Table above, the maximum designed winter flowrate is 120 MMcfd. The results in the tables below show that the estimated minimum number of compressors required to meet both summer and winter operating parameters is 4 compressors.

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For Summer Operating Season:

Scenarios	Discharge pressure for pipelines exiting Ventura	Suction pressure for pipelines entering Ventura	Average Volumetric Demand exiting Ventura Flow	Estimated Minimum Number of Compressors Required
1	1000	450	160	4
2	1000	450	150	4
3	1000	450	140	4
4	1000	450	130	4
5	1000	450	120	3
6	1000	450	110	3
7	1000	450	100	3
8	[redacted]	450	160	4

9	[redacted]	450	150	4
10	[redacted]	450	140	4
11	[redacted]	450	130	4
12	[redacted]	450	120	3
13	[redacted]	450	110	3
14	[redacted]	450	100	3

For Winter Operating Season:

Scenarios	Discharge pressure for pipelines exiting Ventura	Suction pressure for pipelines entering Ventura	Average Volumetric Demand exiting Ventura Flow	Estimated Minimum Number of Compressors Required
15	1000	325	120	4
16	1000	325	110	4
17	1000	325	100	4
18	[redacted]	325	120	4
19	[redacted]	325	110	4
20	[redacted]	325	100	4

The horsepower required for each of the four compressors for the Winter condition at maximum flow is estimated to be1854 hp, and the Summer condition at maximum flow is estimated to be 1867 hp.