5.0 NATURAL GAS SUPPLY

Natural gas will be the only fuel used by the eight new CTGs. Natural gas will be supplied via a 24-inch-diameter underground pipeline that will connect the proposed project to one of two 30-inch Southern California Gas Company (SoCalGas) pipelines located along the southern side of I-10. The proposed project will interconnect to one of two of these 30-inch pipelines by extending a 24-inch branch line that is currently stubbed adjacent to the Indigo Energy Facility, approximately 1.8 miles southeast of the site. SoCalGas will construct, own, and maintain the gas pipeline up to the proposed project gas metering station. The pipeline will be constructed and operated in accordance with California Public Utility Commission (CPUC) General Order 112E, and the Code of Federal Regulations 49 Part 192 – Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, as applicable. The pipeline section after the metering station will receive periodic inspections as part of the proposed project's routine pipeline maintenance program.

5.1 GAS SUPPLY LINE LOCATION

The gas line will be approximately 2 miles in length (Figure 2.3-2). The line will trend north from Indigo Energy Facility, then west on Dillon, north on Melissa Lane, and enter the project site. SoCalGas currently has an 8-inch gas line along the section of the route from the Indigo Energy Facility to Dillon Road. The project would either replace this 8-inch line with a 24-inch line or install the 24-inch line adjacent to the 8-inch line, depending on SoCalGas' final design. The existing easement from Indigo Energy Facility to Dillon Road is approximately 20 feet wide. The easement generally allows for an additional width with temporary rights alongside the easement during initial installation and for reasons such as repairs, alterations, and replacement. The 24-inch pipeline would be placed in this existing 20-foot easement. The width of the construction along the pipeline route will be approximately 75 feet. The pipeline will be installed at least 4 feet below ground surface.

As the pipeline enters the site, the fuel gas will pass through filter separators and metering and pressure/flow control stations provided in the gas metering station in the southeastern area of the site, adjacent to the construction heavy haul road. The gas will then be routed from the gas metering station area to the gas compression buildings. The gas compressor buildings are located along the eastern portion of the site, adjacent to the water treatment areas.

5.2 NATURAL GAS REQUIREMENTS

The natural gas will be delivered to the proposed project at an approximate pressure range of 350 to 550 pounds per square foot gauge (psig). Nominal full load fuel consumption will be 7,200 million Btu/hr (HHV). Total annual fuel consumption will be 8,065,232 million Btu (LHV) based on a 15 percent dispatch and 18,281,400 million Btu (LHV) based on a 34 percent dispatch (see Table 2.9-1). Fuel consumed during start-ups and shutdowns is expected to be 670,792 million Btu (LHV) based on a total of 2,550 annual start-up/shutdown events. As the pipeline enters the site, the fuel gas will pass through metering and any required pressure/flow control stations provided in the gas metering station. The gas metering station will be located along southeastern portion of the site.

The gas will then be routed from the gas metering station area to the gas compression buildings, where it will pass through compressors to reach the required operational pressure of approximately 950 psig, plus or minus 20 psig. A total of seven gas compressors, five sized for two units and two sized for one unit, will operate when the gas pressure falls below the required operational pressure. The gas compressor buildings are located on the eastern portion of the site.

After the pipeline enters the site, the natural gas will be further conditioned at each gas compressor building. The fuel gas compression scope will include inlet scrubbers, finfan gas coolers, and discharge coalescing filters. A final fuel filter will be installed at each combustion turbine.

Gas quality received from SoCalGas from the Blythe receipt point (or 'B1" and 'B2") is summarized in Tables 5.21-1 and 5.2-2. This data point is reflective of gas quality conditions expected at the SoCalGas southern transmission system supply, which will supply the project.

5.3 NATURAL GAS LINE CONSTRUCTION

Construction of the gas line will be completed in time to support the CTG startup and commissioning activities. The natural gas pipeline will be constructed in 5 months, from June 2009 to October 2009. The construction will involve a variety of crews performing the following typical pipeline construction activities: clearing and grading of the construction area; hauling and stringing of the pipe along the route; welding, radiographic inspection, and coating of the pipe welds; trenching; lowering of the pipe into the trench; backfill of the trench; hydrotesting of the pipeline; tie-in to the existing pipeline; purging the pipeline with natural gas; and cleanup and restoration of all construction areas.

Approximately 300,000 gallons of hydrotest water will be required for complete line fill and testing. The hydrotest water is included in the anticipated construction water requirements identified in Table 2.4-4. If suitable for discharge, it will be routed to the onsite retention basin or an appropriate offsite disposal facility (i.e., publicly owned treatment works). If the water quality is not suitable for discharge, it will be transported by trucks to an approved offsite disposal facility.

Construction staffing requirements for installation of the gas line are included in Table 2.6-3. Equipment required for installation of the gas line is included in Table 2.6-1. Equipment laydown will occur within the 75-foot-wide corridor along the gas line route as well as the 14-acre project construction laydown area.

Table 5.2-1
Natural Gas Chemistry Analysis

Date	HHV (btu/cf)	Specific Gravity	Carbon Dioxide	Nitrogen	Methane	Ethane	Propane	I-Butane	N-Butane	I-Pentane	N-Pentane	C6+
1/1/07	1018	0.58	1.21	0.55	96.21	1.56	0.31	0.05	0.06	0.02	0.01	0.02
1/2/07	1018	0.58	1.19	0.62	96.03	1.66	0.32	0.06	0.06	0.02	0.01	0.03
1/3/07	1018	0.58	1.28	0.53	96.04	1.66	0.32	0.06	0.06	0.02	0.01	0.02
1/4/07	1019	0.58	1.17	0.65	95.95	1.75	0.31	0.05	0.06	0.02	0.01	0.03
1/5/07	1019	0.58	1.04	0.78	95.90	1.82	0.30	0.05	0.06	0.02	0.01	0.03
1/6/07	1020	0.58	1.17	0.61	95.94	1.79	0.32	0.05	0.06	0.02	0.01	0.03
1/7/07	1019	0.58	1.22	0.53	96.04	1.73	0.31	0.05	0.06	0.02	0.01	0.03
1/8/07	1019	0.58	1.09	0.65	96.06	1.72	0.31	0.05	0.06	0.02	0.01	0.03
1/9/07	1019	0.58	1.14	0.59	96.12	1.67	0.31	0.05	0.06	0.02	0.01	0.03
1/10/07	1019	0.58	1.10	0.63	96.11	1.70	0.31	0.05	0.06	0.02	0.01	0.03
1/11/07	1018	0.58	1.28	0.50	96.07	1.67	0.31	0.06	0.06	0.02	0.01	0.02
1/12/07	1019	0.58	1.31	0.48	95.98	1.74	0.32	0.06	0.06	0.02	0.01	0.02
1/13/07	1019	0.58	1.28	0.47	96.07	1.71	0.31	0.06	0.06	0.02	0.01	0.02
1/14/07	1017	0.58	1.44	0.36	96.16	1.57	0.30	0.06	0.06	0.02	0.01	0.02
1/15/07	1018	0.58	1.41	0.39	96.11	1.61	0.31	0.06	0.06	0.02	0.01	0.02
1/16/07	1021	0.58	1.35	0.37	96.02	1.70	0.36	0.07	0.07	0.02	0.01	0.02
1/17/07	1019	0.58	1.24	0.35	96.39	1.51	0.33	0.06	0.06	0.02	0.01	0.02
1/18/07	1020	0.58	1.24	0.36	96.32	1.56	0.34	0.06	0.06	0.02	0.01	0.02
1/19/07	1018	0.58	1.37	0.34	96.30	1.49	0.33	0.06	0.06	0.02	0.01	0.02
1/20/07	1018	0.58	1.30	0.35	96.45	1.44	0.30	0.06	0.05	0.02	0.01	0.02
1/21/07	1017	0.58	1.36	0.35	96.39	1.44	0.30	0.06	0.05	0.02	0.01	0.02
1/22/07	1016	0.58	1.41	0.34	96.34	1.47	0.29	0.05	0.05	0.02	0.01	0.02
1/23/07	1020	0.58	1.38	0.33	96.14	1.60	0.35	0.07	0.07	0.02	0.01	0.02
1/24/07	1018	0.58	1.34	0.33	96.40	1.47	0.31	0.06	0.06	0.02	0.01	0.02
1/25/07	1017	0.58	1.39	0.32	96.35	1.47	0.31	0.06	0.06	0.02	0.01	0.02
1/26/07	1018	0.58	1.39	0.33	96.28	1.50	0.32	0.06	0.06	0.02	0.01	0.02
1/27/07	1018	0.58	1.39	0.33	96.28	1.52	0.32	0.06	0.06	0.02	0.01	0.02
1/28/07	1017	0.58	1.42	0.32	96.32	1.49	0.30	0.06	0.05	0.02	0.01	0.02
1/29/07	1017	0.58	1.42	0.33	96.28	1.49	0.32	0.06	0.06	0.02	0.01	0.02
1/30/07	1018	0.58	1.36	0.33	96.35	1.47	0.32	0.06	0.06	0.02	0.01	0.02

Table 5.2-1
Natural Gas Chemistry Analysis

Date	HHV (btu/cf)	Specific Gravity	Carbon Dioxide	Nitrogen	Methane	Ethane	Propane	I-Butane	N-Butane	I-Pentane	N-Pentane	C6+
1/31/07	1018	0.58	1.38	0.33	96.33	1.48	0.32	0.06	0.06	0.02	0.01	0.02
2/1/07	1018	0.58	1.32	0.32	96.45	1.44	0.30	0.06	0.06	0.02	0.01	0.02
2/2/07	1017	0.58	1.36	0.33	96.43	1.42	0.30	0.06	0.06	0.02	0.01	0.02
2/3/07	1019	0.58	1.32	0.34	96.33	1.50	0.33	0.06	0.06	0.02	0.01	0.02
2/4/07	1020	0.58	1.25	0.34	96.33	1.55	0.35	0.07	0.06	0.02	0.01	0.02
2/5/07	1022	0.58	1.25	0.34	96.17	1.67	0.37	0.07	0.07	0.02	0.01	0.02
2/6/07	1021	0.58	1.28	0.34	96.24	1.59	0.36	0.07	0.07	0.02	0.01	0.02
2/7/07	1020	0.58	1.15	0.57	96.07	1.69	0.34	0.06	0.06	0.02	0.01	0.03
2/8/07	1020	0.58	1.10	0.63	95.97	1.78	0.33	0.06	0.06	0.02	0.01	0.03
2/9/07	1020	0.58	1.24	0.52	95.96	1.76	0.34	0.06	0.06	0.02	0.01	0.02
2/10/07	1020	0.58	1.28	0.49	95.99	1.72	0.34	0.06	0.06	0.02	0.01	0.02
2/11/07	1020	0.58	1.28	0.47	96.04	1.67	0.34	0.06	0.07	0.02	0.01	0.03
2/12/07	1020	0.58	1.28	0.50	96.00	1.68	0.35	0.06	0.07	0.02	0.01	0.03
2/13/07	1019	0.58	1.27	0.50	96.07	1.64	0.34	0.06	0.07	0.02	0.01	0.03
2/14/07	1019	0.58	1.37	0.38	96.08	1.61	0.35	0.07	0.07	0.02	0.01	0.02
2/15/07	1019	0.58	1.39	0.35	96.14	1.57	0.36	0.07	0.07	0.02	0.01	0.02
2/16/07	1021	0.59	1.43	0.35	95.91	1.72	0.38	0.07	0.07	0.02	0.01	0.02
2/17/07	1020	0.58	1.35	0.36	96.05	1.68	0.36	0.07	0.07	0.02	0.01	0.02
2/18/07	1020	0.58	1.32	0.41	96.11	1.62	0.35	0.06	0.06	0.02	0.01	0.02
2/19/07	1019	0.58	1.33	0.39	96.15	1.60	0.35	0.06	0.06	0.02	0.01	0.02
2/20/07	1020	0.58	1.29	0.46	96.03	1.70	0.34	0.06	0.06	0.02	0.01	0.03
2/21/07	1020	0.58	1.24	0.48	96.08	1.69	0.33	0.06	0.06	0.02	0.01	0.03
2/22/07	1020	0.58	0.94	0.84	95.83	1.93	0.29	0.05	0.06	0.02	0.01	0.03
2/23/07	1021	0.58	0.89	0.81	95.97	1.83	0.31	0.05	0.06	0.02	0.02	0.03
2/24/07	1019	0.58	1.11	0.68	96.03	1.71	0.30	0.05	0.06	0.02	0.01	0.03
2/25/07	1018	0.58	1.26	0.50	96.21	1.57	0.30	0.05	0.06	0.02	0.01	0.02
2/26/07	1020	0.58	1.12	0.63	96.00	1.74	0.33	0.06	0.07	0.02	0.02	0.03
2/27/07	1022	0.58	0.91	0.82	95.84	1.89	0.35	0.06	0.07	0.02	0.02	0.03
2/28/07	1024	0.58	0.90	0.88	95.57	2.05	0.39	0.06	0.08	0.02	0.02	0.03
3/1/07	1023	0.58	0.83	0.86	95.80	1.96	0.35	0.06	0.07	0.02	0.02	0.03

Table 5.2-1
Natural Gas Chemistry Analysis

Date	HHV (btu/cf)	Specific Gravity	Carbon Dioxide	Nitrogen	Methane	Ethane	Propane	I-Butane	N-Butane	I-Pentane	N-Pentane	C6+
3/2/07	1021	0.58	0.99	0.69	96.02	1.78	0.33	0.06	0.07	0.02	0.02	0.03
3/3/07	1021	0.58	1.11	0.61	95.98	1.76	0.35	0.06	0.07	0.02	0.02	0.03
3/4/07	1021	0.58	1.23	0.49	96.04	1.70	0.35	0.07	0.07	0.02	0.02	0.03
3/5/07	1023	0.58	1.07	0.67	95.78	1.90	0.38	0.07	0.07	0.02	0.02	0.03
3/6/07	1023	0.58	0.85	0.97	95.50	2.09	0.37	0.06	0.07	0.02	0.02	0.04
3/7/07	1022	0.58	0.93	0.88	95.61	2.02	0.36	0.06	0.07	0.02	0.02	0.03
3/8/07	1022	0.58	1.00	0.80	95.69	1.98	0.34	0.06	0.07	0.02	0.02	0.03
3/9/07	1020	0.58	1.04	0.74	95.87	1.85	0.33	0.06	0.06	0.02	0.01	0.03
3/10/07	1023	0.58	0.87	0.97	95.49	2.12	0.36	0.06	0.07	0.02	0.02	0.03
3/11/07	1021	0.58	1.08	0.76	95.69	1.95	0.34	0.06	0.06	0.02	0.01	0.03
3/12/07	1021	0.59	1.17	0.67	95.69	1.93	0.35	0.06	0.07	0.02	0.01	0.03
3/13/07	1021	0.58	1.11	0.72	95.67	1.96	0.35	0.06	0.07	0.02	0.02	0.03
3/14/07	1022	0.58	1.05	0.80	95.60	2.01	0.34	0.06	0.07	0.02	0.02	0.03
3/15/07	1021	0.58	1.05	0.75	95.74	1.93	0.33	0.06	0.06	0.02	0.01	0.03
3/16/07	1021	0.58	1.13	0.68	95.71	1.94	0.35	0.06	0.07	0.02	0.02	0.03
3/17/07	1020	0.58	1.23	0.55	95.89	1.82	0.33	0.06	0.06	0.02	0.01	0.03
3/18/07	1022	0.58	1.01	0.77	95.72	1.98	0.34	0.06	0.07	0.02	0.02	0.03
3/19/07	1022	0.58	1.06	0.74	95.67	1.99	0.35	0.06	0.07	0.02	0.02	0.03
3/20/07	1021	0.59	1.28	0.51	95.80	1.87	0.35	0.07	0.07	0.02	0.01	0.03
3/21/07	1022	0.59	1.12	0.76	95.47	2.09	0.36	0.06	0.07	0.02	0.02	0.03
3/22/07	1023	0.59	1.04	0.83	95.44	2.13	0.36	0.06	0.07	0.02	0.02	0.03
3/23/07	1023	0.59	1.15	0.65	95.59	2.03	0.38	0.07	0.07	0.02	0.02	0.03
3/24/07	1020	0.58	1.03	0.78	95.78	1.92	0.31	0.05	0.06	0.02	0.01	0.03
3/25/07	1018	0.58	1.22	0.60	95.97	1.76	0.30	0.05	0.06	0.02	0.01	0.02
3/26/07	1019	0.58	1.12	0.72	95.86	1.82	0.30	0.05	0.06	0.02	0.01	0.03
3/27/07	1021	0.58	1.12	0.72	95.70	1.94	0.34	0.06	0.06	0.02	0.01	0.03
3/28/07	1021	0.58	1.14	0.71	95.67	1.96	0.34	0.06	0.07	0.02	0.01	0.03
3/29/07	1023	0.58	1.08	0.65	95.75	1.97	0.36	0.06	0.07	0.02	0.02	0.03
3/30/07	1022	0.58	1.12	0.57	95.92	1.86	0.34	0.06	0.07	0.02	0.01	0.02
3/31/07	1022	0.58	1.15	0.47	96.06	1.79	0.34	0.06	0.06	0.02	0.01	0.02

Table 5.2-2
Natural Gas Sulfur Analysis

From 01/06 to 12/06	**(grains S/100 cf)**								
Out of State Suppliers	**H_2S**			**RSH**			**Total Sulfur***		
Location	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**
B1	0.007	0.028	0.013	0.028	0.088	0.058	0.051	0.114	0.071
B2	0.005	0.019	0.012	0.024	0.107	0.065	0.059	0.119	0.078
From 01/06 to 12/06	**(ppmv S)**								
Out of State Suppliers	**H_2S**			**RSH**			**Total Sulfur***		
Location	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**
B1	0.13	0.48	0.22	0.47	1.48	0.97	0.86	1.92	1.19
B2	0.08	0.31	0.21	0.41	1.80	1.10	0.99	2.01	1.31

Assuming 16.9 ppm = 1 grains S/Ccf
* Includes estimated supplemental odorant based on border guidelines of 50/50 t-butyl mercaptan/thiophane
** SoCalGas Specifications allow up to 0.25 gr.H_2S/100 scf and 0.75 gr. S/100 scf Total Sulfur

The information provided in Tables 5.2-1 and 5.2-2 is for information purposes only. The Gas Company has made reasonable efforts to ensure all information is correct and consistent with the applicable Tariffs. To the extent there is any conflict with the Tariffs, the Tariffs shall govern in all cases. In addition, neither The Gas Company's publication nor verbal representations thereof constitutes any statement, recommendation, endorsement, approval or guaranty (either express or implied) of any product or service. Moreover, The Gas Company shall not be responsible for errors or omissions in this publication, for claims or damages relating to the use thereof, even if it has been advised of the possibility of such damages.