

Application of San Diego Gas & Electric Company (U 902
G) and Southern California Gas Company (U 904 G)
Updating Firm Access Rights Service and Rates.

Application No. 10-03-_____
Exhibit No.: _____

PREPARED DIRECT TESTIMONY
OF SIM-CHENG FUNG
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY
AND SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

MARCH 29, 2010

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**PREPARED DIRECT TESTIMONY
OF SIM-CHENG FUNG
ON BEHALF OF SDG&E AND SOCALGAS**

6 **I. QUALIFICATIONS**

7 My name is Sim-Cheng Fung. My business address is 555 West Fifth Street,
8 Los Angeles, California 90013-1011.

9 I am employed by Southern California Gas Company (SoCalGas) as a Senior Market
10 Advisor II in the Energy Markets and Capacity Products Group. I hold a Bachelor of Arts degree
11 from Wellesley College and a Master of Business Administration degree in Finance from the
12 University of California, Los Angeles. I have been employed by SoCalGas since 1981, and have
13 held positions of increasing responsibility in the Treasury, Strategic Planning, Gas Supply,
14 Operations Staff, Gas Acquisition and Energy Markets & Capacity Products departments. I have
15 been a Senior Market Advisor since 1998 and am responsible for providing analytical support to
16 the Capacity Products Group.

17 I have not previously testified before the Commission.

18 **A. Rate Proposals**

19 SDG&E/SoCalGas proposes to use the embedded cost transmission revenue requirement
20 of \$210.1 million total (\$170.6 million SoCalGas + \$39.5 million SDG&E), per the BCAP Phase
21 II Settlement Agreement, Section II.B.2.C., escalated to 2010 base margin to establish the cost-
22 based rate as shown in Table 1 below:

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Table 1 (BCAP D.09-11-006, Appendix A, Settlement Agreement, II.B.2.C), Escalated to 2010 Base Margin			
Total Transmission Costs			
	(A)	(B)	C = (A) + (B)
	SoCalGas	SDG&E	Total
	(\$000)	(\$000)	(\$000)
Transmission Costs	170,627	\$39,466	210,093

1 Table 2A shows that SoCalGas' backbone transmission is 69.2% of SoCalGas' total
 2 transmission cost. The 69.2% transmission cost split is based on a weighted average of 71.5% of
 3 capital-related costs and 67% of the combined operating and maintenance (O&M) and
 4 administrative general (A&G) expenses related to backbone transmission mains and compressor
 5 stations identified in Appendix A of my testimony. The 71.5% capital-related percentage reflects
 6 a weighted average of 76% of depreciation expenses and 69% of rate base associated with
 7 backbone transmission assets. The 67% of both O&M and A&G expenses represents the
 8 percentage of SoCalGas' transmission mileage that is classified as backbone transmission. The
 9 resulting 69.2% is applied to the adopted SoCalGas transmission revenue requirement of \$170.6
 10 million shown in Table 2B, resulting in a backbone transmission cost of \$118.1 million.

Table 2A				
SoCalGas' Backbone Transmission Costs				
	(A)	(B)	C = (A) x (B)	(D) = C / (A)
	SoCalGas Transmission	Backbone Transmission	SoCalGas Backbone	Backbone as % of SoCalGas Transmission
	(\$000)	(%)	(\$000)	
Capital-related Costs	80,693	71.5%	57,696	
O&M, A&G Expenses	85,139	67.0%	57,043	
	165,832		114,740	69.2%

Table 2B				
SoCalGas' Backbone Transmission Costs				
	(A)	(B)	C = (A) x (B)	
	SoCalGas Transmission	Backbone Transmission	SoCalGas Backbone	
	(\$000)	(%)	(\$000)	
Transmission Costs	170,627	69.2%	118,057	

11 Table 3 shows the calculation of the allocation of the SDG&E/SoCalGas (the "utilities")
 12 backbone transmission cost to the local transmission function. The cold year annual average
 13 throughput is 2,651 MMcf. 35% of the utilities' 1-in-10 year peak day end-use demand is
 14

1 served directly off of the backbone transmission system, without going through any local
 2 transmission lines.¹ Assuming these regions make up the same percentage of average demand
 3 as peak demand, approximately 928 MMcfd of the system total average daily throughput of
 4 2,651 MMcfd would be served from backbone transmission. This translates to approximately
 5 24% of the utilities' total backbone capacity of 3,875 MMcfd. Therefore, the utilities have
 6 reallocated 24% of the embedded cost of backbone transmission to the local transmission
 7 function.

Table 3
Combined SDG&E and SoCalGas % of Backbone Allocated to Local

(A) Cold Year Annual Average Demand (MMcfd)	(B) Demand Served Directly from Backbone (%)	C = A x B Demand Served Directly from Backbone (MMcfd)	(D) Total Backbone Receipt Capacity (MMcfd)	(E) = C / D % of Backbone Allocated to Local Transmission Function
2651	35%	928	3875	24%

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 9
 10 Table 4 shows the utilities' embedded cost of backbone transmission is \$119.8 million
 11 after reassigning 24% of costs to the local transmission function. The backbone cost represents
 12 57% of the utilities' total transmission costs shown in Table 1.

Table 4
Combined SDG&E and SoCalGas Backbone Costs

(A) SoCalGas Backbone (\$000)	(B) Total SDG&E (\$000)	C = (A) + (B) SoCalGas & SDG&E Backbone Costs (\$000)	(D) % of Backbone Allocated to Local Transmission Function (%)	(E) = C x (1-D%) Combined SoCalGas & SDG&E Backbone Costs (\$000)	(F) = (E)/Table 1, Column C (%)
118,057	39,466	157,523	24%	119,805	57%

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^{1/} 2.0 Bcfd of the total system 1-in-10 peak day demand of 5.6 Bcfd is served off the backbone transmission system, through direct connection or distribution systems supplied from backbone transmission.

1 Table 5 shows the calculation of a cost-based backbone transportation rate of \$0.0986 per
 2 decatherm per day using the embedded cost of backbone transmission of \$119.8 million and
 3 3,232 MMcfd, which is the average daily firm contract demand quantity (CDQ) from October 1,
 4 2008 to December 31, 2009.

Table 5
Combined SDG&E and SoCalGas Backbone Transmission Rate (\$/Dth)

(A) Average 15-Month Firm Contract Demand Quantity(CDQ) (MMcfd)	(B) BTU Conversion Factor	(C) = (A) x (B) x 365days Annual Capacity (MDth)	(D) Combined SoCalGas & SDG&E Backbone Costs (\$000)	(E) = (D) / (C)
3232	1.0302	1,215,405	119,805	\$ 0.0986

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6
7 SDG&E and SoCalGas do not recommend including the average 15-month level of
 8 interruptible usage (72 MMcfd, on average) in Column A above because we assume that
 9 backbone usage and subscriptions will decrease somewhat as a result of the rate increase shown
 10 in Table 5.

11 In addition to the \$119.8 million of transmission cost unbundled in the backbone capacity
 12 rate (see Table 5),and charging an in-kind fuel charge to the backbone shippers, would result in
 13 another \$11.3 million of cost removed from the current end-use customer rates as described by
 14 Ms. Smith. During 2009, SoCalGas used 2.073 Bcf of compression fuel to move 946 Bcf of
 15 receipts—this translates to an in-kind transmission fuel factor of 0.22%. Consistent with
 16 SoCalGas’ postage-stamp backbone transmission capacity rate, this fuel factor would be charged
 17 for all backbone receipts, including California supply. The fuel factor would be adjusted every
 18 quarter based on the fuel factor from the prior quarter, which is shown on the Daily Operations

1 page of Envoy. There would also be a small adjustment for the Q1 fuel factor to account for any
2 over or under-collection of actual transmission fuel costs in the prior year using this method.

3 This concludes my testimony.

Appendix A

Backbone & Local Transmission System identified by Pipeline Numbers

<u>SoCalGas' Backbone Pipelines</u>		<u>SDG&E's Backbone*</u>	<u>SoCalGas' Local Pipelines</u>		
53	1216	401	12	1170	6001
85	1220	801	115	1171	6154
90	1221	802	145	1172	6902
103	1229	803	160	1173	6903
119	2000	804	173	1174	7000
127	2001	805	214	1175	7025
133	2005	1204	222	1176	7038
169	2051	1206	243	1200	7042
174	3000	1600	321	1202	7043
203	3003	1601	324	1203	7044
225	3006	1602	325	1205	7049
235	3008	1603	404	1207	7051
245	3009	1604	406	1211	7052
247	4000	2009	407	1218	7054
293	4002	2010	408	1219	7055
294	5000	3010	512	1228	7056
300	5002	3011	765	1230	7058
303	5010	3012	767	1231	7059
309	5012	3600	775	1232	7067
324	5015	3601	800	1233	8032
335	5034		1003	1234	8038
404	5036		1010	1236	8045
406	5041		1011	1240	8104
963	5043		1013	1241	8112
1004	6900		1014	2000	
1005	6901		1015	2001	
1027	6904		1016	2002	
1028	6905		1017	2003	
1030	6906		1018	2006	
1031	6907		1019	2007	
1134	7039		1020	3000	
1180	7053		1021	3001	
1181	7200		1022	3002	
1185	8100		1023	3004	
1186	8105		1024	3005	
1187	8106		1025	3007	
1190	8107		1026	4000	
1192	8108		1029	4001	
1201	8109		1129	5031	
1215	8110		1167	6000	

*100% of SDG&E's transmission system is backbone, per Mr. Bisi's testimony in A.04-12-004.

Appendix A (Cont'd)

SoCalGas/SDG&E	Miles	%
Backbone Miles	1,933	67%
Local T Miles	954	33%
Total SoCalGas	2,887	100%
SDG&E	170	
Total SoCalGas/SDG&E	3,057	

Compressor Stations - All Backbone			
Adelanto	Kelso	Rainbow	Wheeler Ridge
Blythe	Moreno	So Needles	
Cactus City	Newberry	Sylmar	
Desert Center	No Needles	Ventura	