



Tamara Rasberry
Manager, State Agency
Governmental Affairs

925 L Street, Suite 650
Sacramento, CA 95814

(916) 492-4252
trasberry@sempra.com

April 28, 2011

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 11-IEP-1K
1516 Ninth Street
Sacramento, CA 95814-5512

DOCKET	
11-IEP-1K	
DATE	APR 28 2011
RECD.	MAY 17 2011

Re: Docket No. 11-IEP-1K 2011 IEPR – Natural Gas Market Assessment, Reference Case and Possible Scenarios

Dear Commissioners:

San Diego Gas & Electric Company “SDG&E” and Southern California Gas Company “SCG”, the Sempra Energy Utilities, appreciate the opportunity to participate in the *2011 Integrated Energy Policy Report* “2011 IEPR” development process. We have reviewed the Natural Gas Market Assessment, Reference Case and Possible Scenarios and offer the following comments for your consideration.

In general, the Sempra utilities believe that the reference Case and Possible Scenarios are well thought out and comprehensive in their scope. Given the uncertainty in the energy markets at this time scenario development is a well accepted approach in assessing the possible range of natural gas prices and supplies over the IEPR forecast period. Scenarios using various supply and demand conditions are appropriate planning tools to assure that California promotes the appropriate mix of electric and gas infrastructure investments.

Reference Case: The Sempra utilities believe that the proposal by staff to use the Rice World Gas Trade Model, a comprehensive world gas demand and price forecasting tool, can be effective in providing useful insights of the effect of various possible future scenarios in forecasting a range of gas demand, supply and prices. We agree with most of the Reference Case assumptions but believe that the natural gas price elasticities for natural gas use are too high for California because fuel switching in most of California air basins is not allowed due to air quality emission policies. SCG’s studies show that elasticities in our service territory are in the -0.1 range not -0.442 as shown in the Rice model. The following are the elasticities by market segment that we have assessed in the SDG&E and SCG service territories:

Commercial Segment	Elasticity Value	Industrial Segment	Elasticity Value	Residential Segment	Elasticity Value
Office	-.135376	Mining	-0.0000	Single Family	-.10530
Restaurant	-.091877	Food	-.190795	Small Multi Family	-.11171
Retail	-.265060	Textile	-0.0000	Large Multi Family	-.07145
Laundry	-.122795	Wood & Paper	-0.0000	Master Meter	-.06880
Warehouse	.043035	Chemical	-.080517	Sub Meter	-.10530
School	-0.0000	Petroleum	-.180563		
College	-.037179	Stone, Clay & Glass	-0.0000		
Health	-.096826	Primary Metals Fabricated	0.000		
Lodging	-.105697	Metals	-.137441		
Miscellaneous	-0.0000	Transportation	0.0000		
Government	-.095709	Miscellaneous	-.108307		
TCU	-.129301				
Construction	-.161076				
Agriculture	-.315282				
Overall:	-.107134	Overall:	-.10153	Overall:	-.09892

As to GHG Regulations, we believe adding the cost of \$30/Tonne of CO₂ to the cost of natural gas would be a better assumption for the Reference case than assuming no cost adder at all. With the passage of GHG legislation in California, it is most likely that a cap and trade program will become effective in 2012 and beyond. With that in mind, \$30/tonne of CO₂ is being used in the Energy Efficiency evaluations as a GHG cost adder when evaluating potential Energy Efficiency projects. The EPA estimates that the natural gas combustion emissions are 53.02 Kilograms/MMbtu. Therefore the additional cost of using natural gas at \$30/tonne of CO₂ is \$1.59/MMbtu as shown in the table below. However, if the Commission Staff believes that the Cap & Trade price will be lower than \$30/tonne we would recommend that at least a \$10/tonne at \$0.53/MMbtu adder be used in the Reference Case.

CO ₂ Cost/Tonne	\$ 10.00	\$ 15.00	\$ 20.00	\$ 25.00	\$ 30.00
Emissions KG/MMbtu	53.02	53.02	53.02	53.02	53.02
Emissions Metric Tonnes/MMbtu	0.05	0.05	0.05	0.05	0.05
Cost/MMbtu	\$ 0.53	\$ 0.80	\$ 1.06	\$ 1.33	\$ 1.59

We further recommend that the Reference Case use the California legislative requirement for Renewables-sourced electricity at 33% for 2020 and believe that 44% by 2040 is a reasonable assumption.

Case A - High Gas Price Case: The assumptions are reasonable but for California the assumption that we would have 50% less renewables is probably not realistic. We would recommend that the California Renewables percentages stay at 33% for 2020 and beyond and that at least a \$10/tonne GHG adder be employed in this scenario. We also recommend that shale gas development be restricted due to environmental concerns in New York, Ohio, west Virginia and Pennsylvania. A reasonable assumption would be to restrict shale gas supply growth from these three states to 50% of the reference case growth rate assumption.

Case B – Low Gas Price Case: The key issue here is increased gas production coming on line faster. Therefore, we recommend that the technology improvement be increased to 2%/year and the supply curve shifted to the right. This is what happened with shale development and it is reasonable to anticipate similar drilling and technology improvements to occur in the future.

Case C – High California Gas Demand Case: We recommend that the Renewables percentage be the same as in Case A, 33% by 2020 and remains at 33% thereafter. We further recommend that the GHG adder of \$10/tonne be used.

Case D – Stressed High Demand Case: The Staff is assuming colder winters and hotter summers in this case which are seasonal factors that will only occur once in 10, 20 or 35 years based on assumption and are even more unlikely to occur in the same year. We recommend that this case should be a climate change scenario where the number of Cooling Degree Days are gradually increased by 3% over the next 30 years and hydro is gradually reduced by 3% over the next 30 years. We therefore recommend that this Case be renamed Stressed High “Electricity” and “Low Hydro” Case.

Case E – Low California Gas Demand Case: We recommend that residential gas demand be held at 2010 levels and that commercial and industrial gas demand be kept at a 2010 level on a per capita basis. Assuming that California achieves 50% renewables by 2040 would be a reasonable assumption for this case. We also recommend that a gradual increase of the GHG adder from \$10/tonne in 2012 to \$60/tonne by 2040 be used in this scenario.

Case F – Stressed Low California Demand Case: The Staff is assuming warmer winters and cooler summers in this case which are seasonal factors that will only occur once in 10, 20 or 35 years based on assumption and are even more unlikely to occur in the same year. We recommend that this case should be a climate change scenario where the number of Heating Degree Days is gradually decreased by 3% over the next 30 years and hydro is gradually increased by 3% over the next 30 years.

Case G – Increased Environmental Mitigation Costs: The staff assumptions in this case are reasonable.

Case H – This case does not appear to provide any significant insight and therefore could be eliminated.

As always, the Sempra utilities appreciate the opportunity to participate in these important planning activities and commend the staff in presenting a comprehensive and innovative approach to assessing the possible range of gas demand, supply and prices for the 2011 IEPR.

Sincerely,

A handwritten signature in cursive script, reading "Amara Parly". The signature is written in black ink and is positioned below the word "Sincerely,".