NATURAL GAS MARKET OUTLOOK 2011

Marjorie Schmidt-Pines, Principal Regulatory Economic Advisor
Southern California Gas Company and SDG&E Regulatory Affairs
January, 2011

This information is provided solely for informational purposes. Although Southern California Gas Co. (SoCalGas) has used reasonable efforts to assure its accuracy, no representation is made that the contents are free from error or suitable for use for any particular purpose. SoCalGas assumes no responsibility for use of, or reliance on, this information by any party, and specifically advise such parties to discuss any decisions or actions related hereto with their own advisors and experts.

© 2005 San Diego Gas and Electric and Southern California Gas Company. All copyright and trademark rights reserved
Natural Gas Outlook

• U.S. shale gas resources drive increased U.S. production, lower prices, and lower imports of natural gas
• North America West Coast LNG terminal Operational
• U.S. storage levels this winter higher than five year average
• Industrial and electric power use drives future demand growth
• Non-hydro renewables and natural gas are the fastest growing electricity generation sources
• Natural gas price projections are significantly lower than past years due to an expanded shale gas resource base
30% domestic gas production growth outpaces 16% consumption growth, leading to declining imports

U.S. dry gas
trillion cubic feet per year

Consumption

Net imports

Domestic supply

History 2009 Projections


1%

6%

11%

Source: EIA, Annual Energy Outlook 2011
Shale gas has been the primary source of recent growth in U.S. technically recoverable natural gas resources

U.S. dry gas resources
trillion cubic feet

AEO edition

<table>
<thead>
<tr>
<th>Year</th>
<th>Unproved shale gas</th>
<th>Unproved other gas (including Alaska* and offshore)</th>
<th>Proved reserves (all types &amp; locations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1500</td>
<td>1250</td>
<td>250</td>
</tr>
<tr>
<td>2005</td>
<td>1550</td>
<td>1300</td>
<td>270</td>
</tr>
<tr>
<td>2006</td>
<td>1600</td>
<td>1350</td>
<td>290</td>
</tr>
<tr>
<td>2007</td>
<td>1650</td>
<td>1400</td>
<td>310</td>
</tr>
<tr>
<td>2008</td>
<td>1700</td>
<td>1450</td>
<td>330</td>
</tr>
<tr>
<td>2009</td>
<td>1750</td>
<td>1500</td>
<td>350</td>
</tr>
<tr>
<td>2010</td>
<td>1800</td>
<td>1550</td>
<td>370</td>
</tr>
<tr>
<td>2011</td>
<td>1850</td>
<td>1600</td>
<td>390</td>
</tr>
</tbody>
</table>

* Alaska resource estimates prior to AEO2009 reflect resources from the North Slope that were not included in previously published documentation.

Source: EIA, Annual Energy Outlook 2011

Richard Newell, December 16, 2010
Shale gas offsets declines in other U.S. supply to meet consumption growth and lower import needs

U.S. dry gas trillion cubic feet per year

History 2009 Projections

- Net imports
- Shale gas
- Non-associated onshore
- Non-associated offshore
- Tight gas
- Coalbed methane
- Associated with oil
- Alaska

Source: EIA, Annual Energy Outlook 2011
U.S. natural gas shale
U.S. shale gas production increased 14-fold over the last decade; reserves tripled over the last few years

annual shale gas production
trillion cubic feet per year

- Eagle Ford (TX)
- Marcellus (PA and other Eastern states)
- Haynesville (LA and TX)
- Woodford (OK)
- Fayetteville (AR)
- Barnett (TX)
- Antrim (MI, IN, and OH)

Source: Lippman Consulting (2010 estimated)
Shale gas production has continued to rise rapidly over the past year

Howard Gruenspecht, U.S. – Canada ECM, Dec 2, 2010

Source: EIA, Lippman Consulting
SoCalGas Sources of Natural Gas

SoCalGas Total Supply Mix for 2009

Source: California Gas Report, SoCalGas 2010
Status of Costa Azul LNG Terminal

Costa Azul Current Operations

• Costa Azul capacity split 500 MMcfd each to Sempra LNG and Shell – However, Shell completed a “subleasing” deal with Gazprom for a quarter of the capacity
  – Sempra’s long-term supplies from Tangguh project in Indonesia
  – Shell has available capacity now - long-term supplies from Sakhalin project in Russia – There has been no indication when cargoes from Sakhalin might first arrive at ECA

• Sempra has been receiving regular cargoes from Tangguh approximately every 12 days since the second quarter of 2010
  – Additional spot cargoes have been received from time to time
  – One spot cargo was received from Peru in July 2010

• SDG&E has received nominations at the Otay Mesa receipt point periodically throughout the second half of 2010

• SoCalGas received nominations at Blythe from North Baja Pipeline - some LNG derived gas arrived, however, mainly domestic gas due to displacement.
Natural gas consumption is quite dispersed; industrial and electric power use drives future demand growth.

U.S. dry gas consumption
trillion cubic feet per year

<table>
<thead>
<tr>
<th>History</th>
<th>2009</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2035</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Industrial*
- Central electric power
- Commercial
- Residential
- Transportation**

32% 30% 14% 21% 3%

* Includes combined heat-and-power and lease and plant fuel. ** Includes pipeline fuel.

Richard Newell, December 16, 2010

Source: EIA, Annual Energy Outlook 2011
Natural gas, wind and other renewables account for the vast majority of capacity additions from 2009 to 2035.

2009 capacity

- Natural gas: 351 (34%)
- Coal: 313 (30%)
- Hydropower*: 99 (10%)
- Other renewables: 15 (1%)
- Wind: 32 (3%)
- Nuclear: 101 (10%)

1,033 gigawatts

Capacity additions 2009 to 2035

- Natural gas: 135 (62%)
- Coal: 14 (6%)
- Hydropower*: 6 (3%)
- Nuclear: 3 (1%)
- Other renewables: 27 (12%)
- End-use coal: 7 (3%)
- Other fossil: 1 (0.4%)

220 gigawatts

* Includes pumped storage

Source: EIA, Annual Energy Outlook 2011
The projected electricity mix gradually shifts to lower-carbon options, with generation from natural gas rising 37% and renewables rising 73%.

Source: EIA, Annual Energy Outlook 2011
Southern California Gas Demand

Source: CGR 2010
U.S. Storage at High Levels This Winter

U.S. Working Natural Gas in Storage

Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2005 - Dec. 2009.

Source: Short-Term Energy Outlook, December 2010
Weather has the most impact on spot natural gas prices.

U.S. Winter Heating Degree-Days (population-weighted)

Data source: National Oceanic and Atmospheric Administration, National Weather Service
http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/degree_days/

Source: Short-Term Energy Outlook, December 2010
Natural Gas Price History

CA AZ Border and SoCal Citygate - NGI Monthly Index
Data Source: NGI Bidweek Survey Jan. 3, 2011

$/mmbtu

T:\fuelpric.xls
Oil vs Natural Gas Prices

Historical Oil Prices vs. Gas Prices
Equivalent Unit Cost ($/MMBtu)

1 Barrel = 6.2 MMBtu
Last Updated: 12/8/2010

Source: Oil prices - EIA, CA/AZ Border Gas Price - Ventyx Velocity Suite-Nymex
T:\oil vs gas.xls
While Gas Prices Have Fluctuated: SoCalGas’ Transportation Costs Have Been Flat

Transport costs are the Volumetric & Customer Charge.

Core GN10 @ 100,000\(^{th}\)/year and Noncore GTF/I3-D @ 1.5MMth/year.

Core Gas Cost is SCG’s core procurement rate and CA Border Index is Natural Gas Intelligence Index.
Where are Gas Futures Prices Going?

Natural Gas NYMEX & ClearPort Futures

This posted information is provided solely for informational purposes. Although SoCalGas and SDG&E have used reasonable efforts to assure its accuracy, no representation is made that the contents are free from error, or suitable for use for any particular purpose. SoCalGas and SDG&E assume no responsibility for use of, or reliance on, this information by any party, and specifically advise such parties to discuss any decisions or actions related hereto with their own advisors and experts.

Natural gas price projections are significantly lower than past years due to an expanded shale gas resource base.

Natural gas spot price (Henry Hub)
2009 dollars per million Btu

Source: EIA, Annual Energy Outlook 2011

Richard Newell, December 16, 2010

Source: EIA, Annual Energy Outlook 2011
North American Natural Gas Market

• Gas price volatility will likely continue.
• Shale gas drives growth in natural gas production and reduces reliance on imported gas.
• Higher demand expected for U.S. gas fired electric generation and industrial demand.
• Natural gas prices much lower than oil prices.
• Natural Gas basis differences at various hubs diminished, driven by shale production increase in the east and new pipelines added.
• Natural gas price projections are significantly lower than past years due to an expanded shale gas resource base.
What Can You Do to Manage Energy Costs?

- Take advantage of energy efficiency programs. Call your Account Executive for technical support.
  - Go to socalgas.com/business for support tools.

- If you transport your own gas, talk to your gas supplier to discuss supply and pricing strategies.

- Look for ways to conserve and be more energy efficient.
Thank you