

NG Market » notes

Feature Articles

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Lessons from the Natural Gas Market

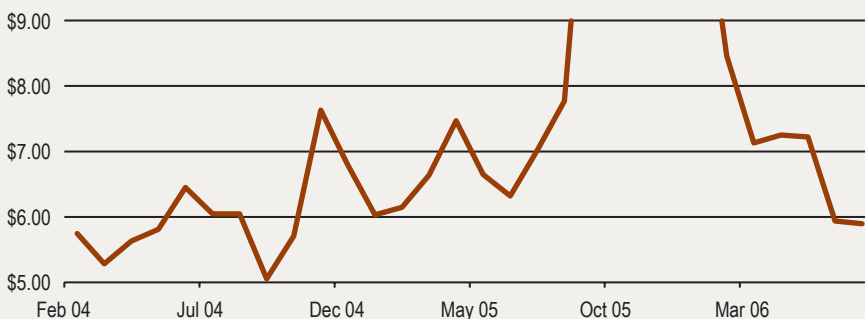
In last month's issue, we observed just how strange the past year had been in gas markets as a result of the hurricane-induced supply loss followed by the very cooperative summer weather in January. The first-of-month cash prices at Henry Hub spiked into the teens before dropping to a point this July 1 that was actually lower than the same date in the last two years.

We made the point that this kind of unpredictable response to unpredictable weather emphasized the need for infrastructure that can respond to and dampen the effects of uncertainty. The behavior of the gas markets through July and August has certainly borne that out. Despite storage injections being over very early this year, the market

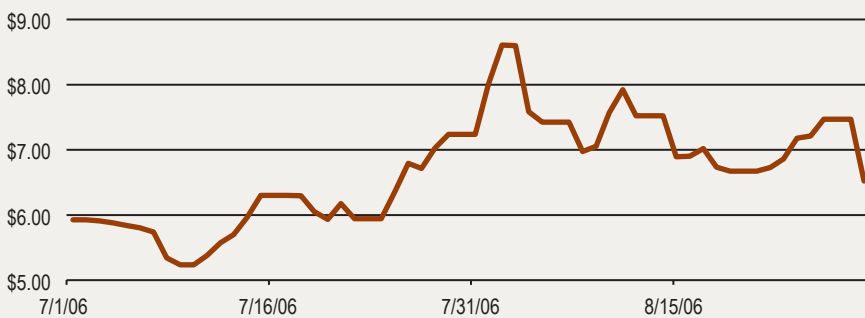
pressure caused by record hot-weather, power generation, and the anticipation of another hurricane season has driven prices back up rapidly. The daily behavior of cash prices over the last couple of months shows just how nimble one needs to be in this market.

Most market pundits had been saying that with storage full, gas prices would continue to plummet--those expectations were wrong. Prices have gone from below \$6.00 to over \$8.00, very quickly, with August averaging about \$1.30 higher than July (of course, at the end of August they dropped back when Hurricane Ernesto decided not to visit the Gulf). Meanwhile, the forward-looking 12-month strip has stayed well above \$8.00 as an average for the coming year.

Henry FOM Cash (Feb 2004 - July 2006)



Henry Cash PricesDaily (July 1 - Aug 29, 2006)



Any market where chronic supply/demand imbalances keep prices high, and in any given month might see price swings of 25 or 30 percent, definitely needs additional infrastructure. Part of the challenge for the gas industry is that chronic high prices argue for investment in supply development and basic delivery infrastructure, while monthly and daily load and price volatility argue for flexibility-related infrastructure. Some investment choices need to be made over the next few years to optimize the mix of these objectives.

The most obvious and important investment in flexibility is new storage. The Federal Energy Regulatory Commission (FERC) has recognized that a lot of storage needs to be built. In part it is needed to moderate the year like the one we just had. But, new storage is also needed simply to balance gas supply timing with market consuming timing.

The best example of this second need is in the imported-LNG market. There, a well-run and economic terminal needs to run at a very steady rate in order to get the necessary liquid out of its tanks in time to unload the next tanker. However, the market doesn't necessarily cooperate by taking gas in the same pattern. When LNG was one percent or less of the nation's gas supply, this mismatch might have been an irritation, but was not a big deal. Adjustments in existing storage operations and in other flowing supplies could make up for the mismatch. However, with new terminals each inserting potential volumes of gas into the grid at the Bcf per day level each, and with LNG expected to be 15 or 20 percent of our national supply, the mismatch between production and consumption will become more of a big deal, and much more storage will be needed to address it. This storage likely will take the form of additional LNG tanks and underground storage.

In the effort to stimulate more storage development, a key tool used by regulators has been the application of market-based rates. Essentially, if a storage developer takes the market risk of a new storage facility, but that developer can also capture a market upside if the facility is a success, risks and rewards are balanced more effectively than if prices are constrained by cost-based rates. Examples of market-based rates being available in the commercial storage market have appeared in various states, in Canada, and at the FERC.

The FERC's market-based rate process has been in place since 1996, under the same policy that provided for pipeline negotiated rates. An applicant has to show that it does not hold market power, which is defined and measured in a way that makes the hurdle fairly hard to clear. While quite a few new-storage developers have been able to gain market-based rate authority under the FERC policy, success has been very rare for a large developer or for an incumbent company. Recently, partly through its own deliberations and partly as a result of the Energy Policy Act of 2005 (EPAAct), the FERC has acted to try to change this.

In Order 678, a final rule issued in June, the FERC did two things to expand the usefulness of market-based storage rates as a tool to spur development. First, in testing to find out whether enough competition exists to eliminate concerns over market power, the FERC expanded the competitive alternatives that could be included. In other words, rather than simply asking whether there is competitive underground storage, the inquiry will now ask whether the same service—tendering gas at one point in time, to get it back at another point in time—can be provided by a competitor regardless of whether storage is involved. Thus, alternatives such as production variation, pipeline optimization, etc. can be taken into

account as competition for storage. Second, implementing authority conferred by EPAAct, it is now possible for a developer to seek market-based rates even when it has not been shown that there is an absence of market power. This second option requires some sort of consumer-protection mechanism, which may prove as cumbersome as a market-power test, but it potentially brings large developers and incumbents into the equation.

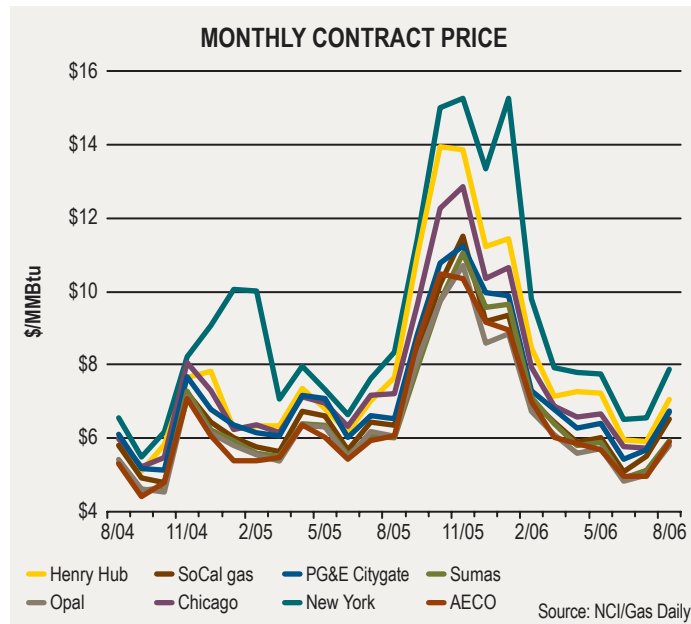
There has been parallel evolution in the treatment of storage in Ontario, where the large storage fields around Dawn support one of the more competitive markets in North America. Competing for business on both sides of the international border, Ontario storage owners including the large utilities have for some time had the ability to market-price "transactional" storage, the commercial services sold outside of the ordinary utility business. More recently, the Ontario Energy Board has conducted a broad proceeding to examine a number of service issues, one of which is whether there should be a complete forbearance from the regulation of storage rates.

The development of new storage capacity takes the good fortune of finding attractive geological formations in the right place, finding a market that the storage will fit, and integrating the operation of the storage with the supply and delivery systems that the storage needs to support. This kind of project development is very complex and can be quite risky. Regulators and legislators throughout North America clearly hope that putting more inviting economic tools in place for someone to take this risk will stimulate accelerated growth in storage capacity, and help moderate the price volatility in the gas markets.

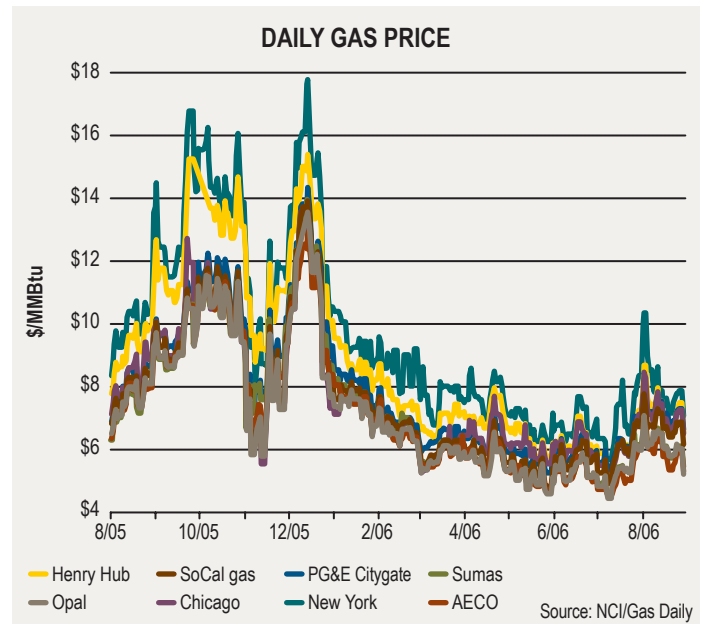
- Rick Smead

NCI Natural Gas Market Fundamental Analysis

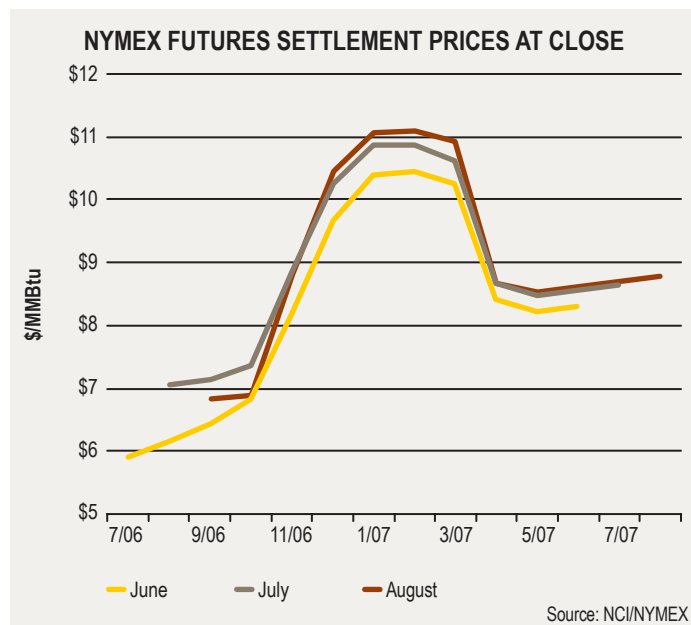
Driven by Warm Weather in July, August Monthly Index Prices Were Up Across the US - \$1.15 per MMBtu Higher than July at Henry Hub



August Spot Prices Retreat Quickly to US \$6.50 per MMBtu Range on Normal Temperatures Returning and Continuing Strong Storage Fundamentals



September NYMEX Closes at \$6.82 per MMBtu, Down \$0.30 per MMBtu; 12 Month Strip is Up \$0.15 per MMBtu to \$9.11 per MMBtu on Winter/Spring '07 Strength

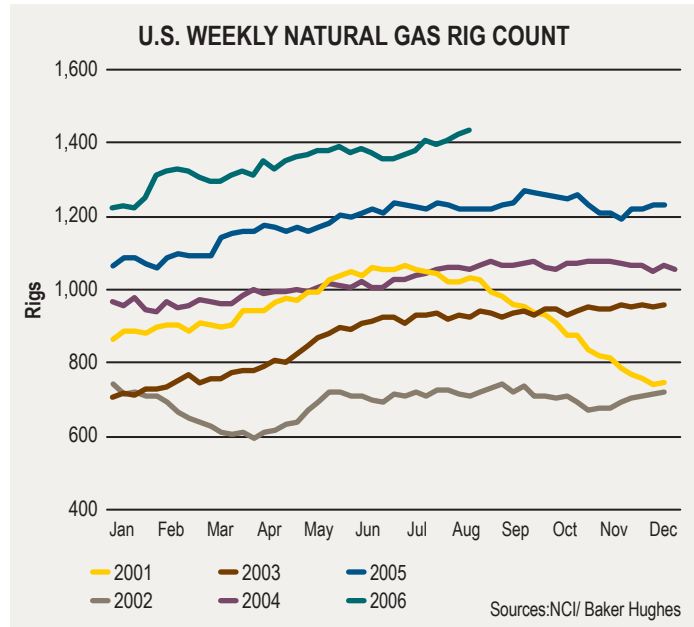


2006 Price Forecasts In a Range of \$6.40 per MMBtu to \$8.30 per MMBtu

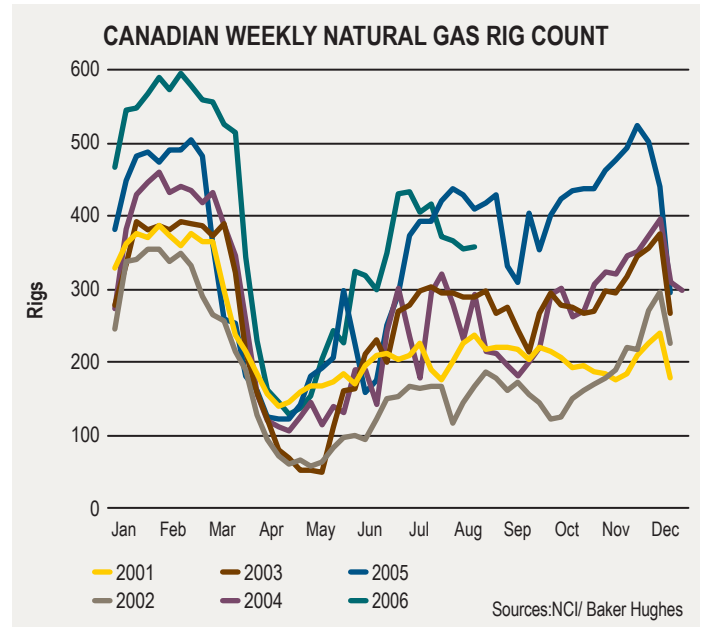
NCI PRICE PREVIEW	
Source	2006 Price Forecast (\$/MMBtu)
Raymond James	\$7.81
Lehman Brothers	\$7.75
EIA Henry Hub	\$7.61
RBC Capital Markets	\$7.50
Bank of America	\$6.50
EEA	\$6.40
NCI	\$8.30

Source: NCI Survey/NCI

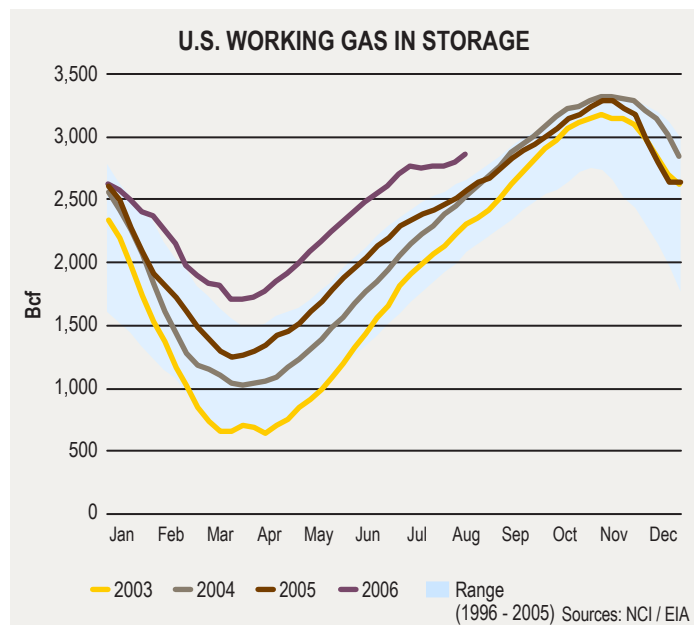
New 10 Year Gas Rig Count Record Hit for Week Ending August 25 at 1,436 Rigs Working - 17% Higher than 1 Year Ago



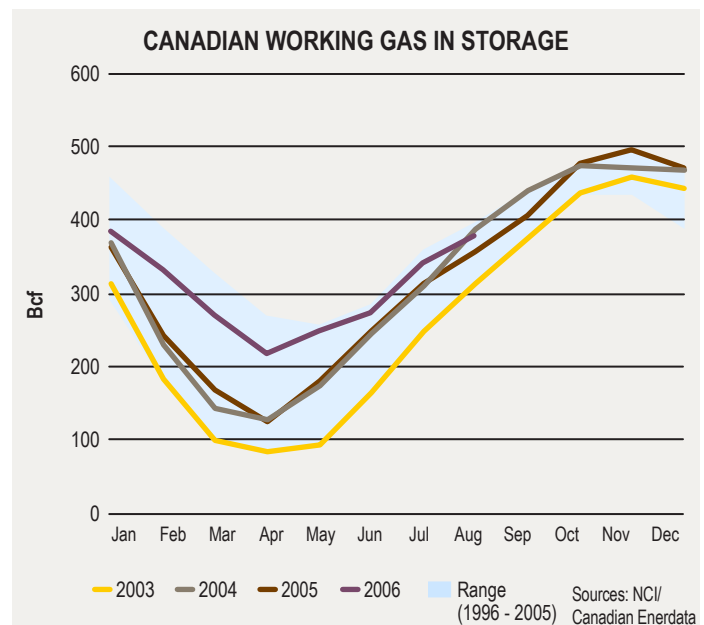
Canadian Gas Directed Rig Count at 359 Rigs Working - Historically Strong Levels But Behind Record 2005 Levels



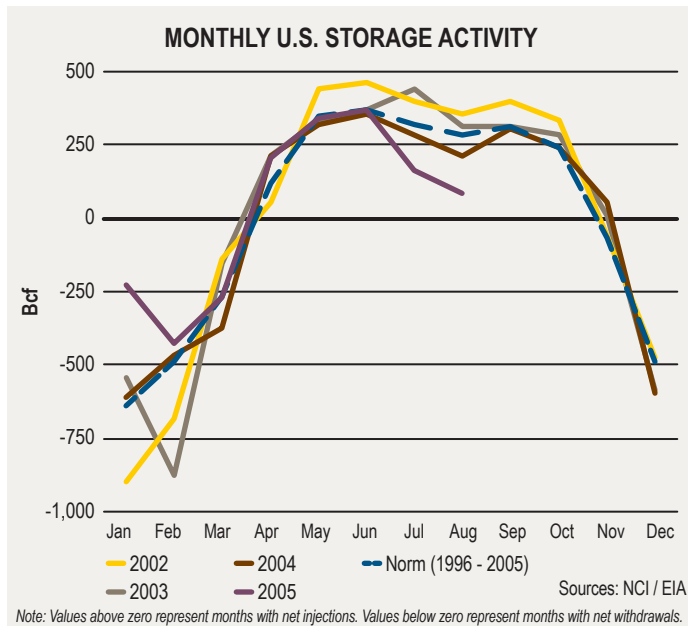
US Gas Storage Inventory at 2,857 Bcf as of Week Ending August 18, 87% Full and 117% of Normal



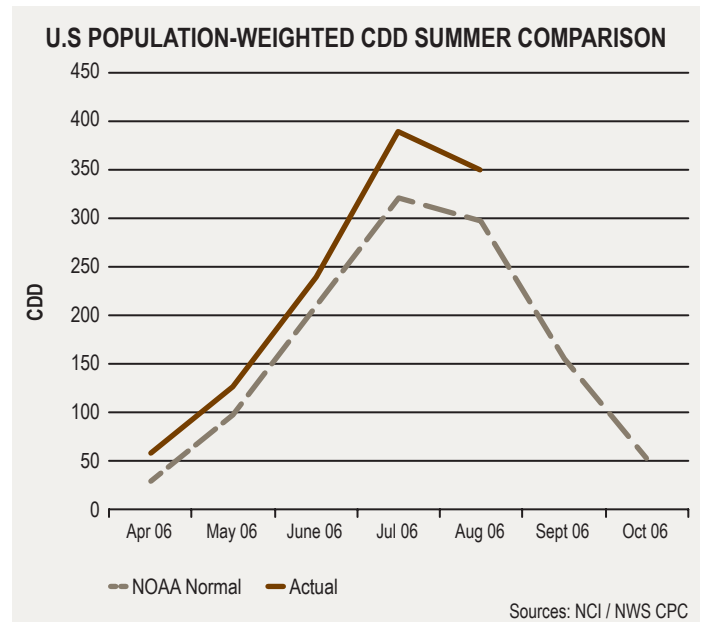
Canadian Storage Inventory Levels at the Beginning of August were 378 Bcf; 5% Ahead of Normal



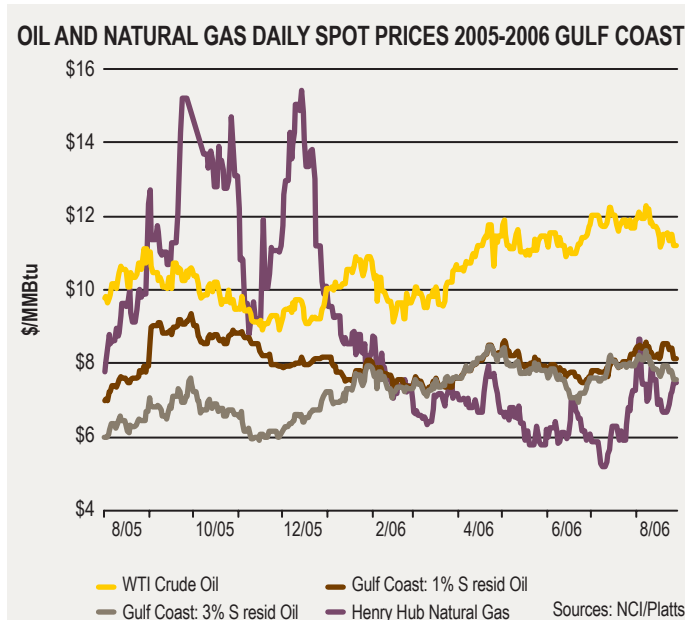
Storage Injections Have Been Below Normal During Summer Season On High Electric Generation Demand Caused By High Temperatures



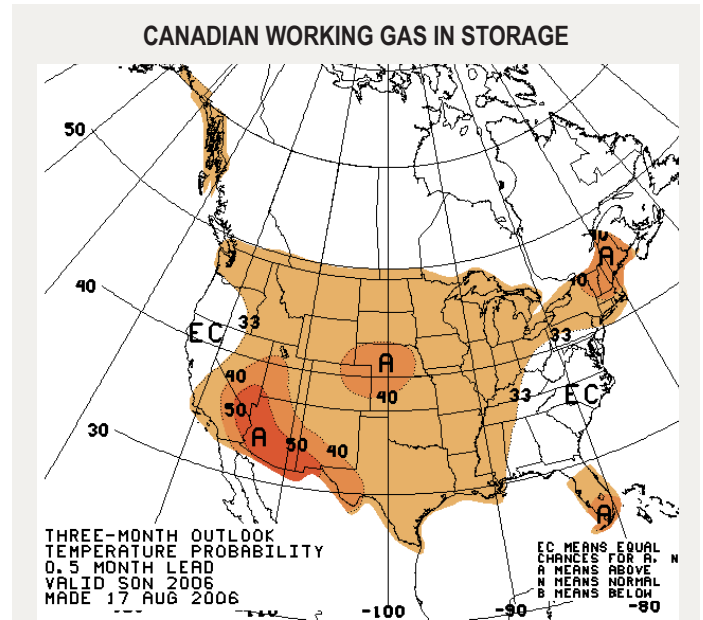
On a Population Weighted Basis CDD's Show the Warm Summer Season - 21% Above 30 Year NOAA Normal



Gulf Coast Natural Gas Prices Maintain 2006 Price Disparity to WTI Crude Oil



The NOAA's Temperature Outlook for Sep-Oct-Nov (SON) 2006 Calls for Warmer Than Normal Conditions Over Most of the U.S. West of the Mississippi River. Above Normal Temperatures Are Also Expected Across the Great Lakes - New England and the Florida Peninsula As Well As the Eastern Half of Alaskas Southern Coastline. Elsewhere There Are Equal Chances of Warmer-than... Cooler-than... or Near- Normal Temperatures During SON



Key Legislative and Regulatory Highlights

USA

Pacific Northwest

The Oregon Public Utility Commission ("OPUC") has ordered a general rate case in a "Show Cause" proceeding for Cascade Natural Gas Company. The Show Cause proceeding was initiated on the basis of a recommendation from the OPUC staff, which believes Cascade's earnings have been too high, based on recent audited results of operations, and will likely continue without a rate reduction. Unlike when utilities file rate cases and bear the burden of proof that the rate changes are needed, staff will bear that burden for its recommendation, based on a preliminary review, that Cascade's rates be reduced by 3.3 percent, or \$2.3 million annually. Cascade serves about 51,000 Oregon customers, primarily in the central part of the state. Cascade's last Oregon general rate case was 16 years ago.

NW Natural has filed requests in both Washington and Oregon for rate increases due to higher wholesale natural gas costs. In Oregon, residential customers would see monthly bill increases of 6.7%. For the average Residential customer using 57 therms per month, this will mean an increase of \$5.30 per month. Commercial customers in Oregon would see an average rate increase of 7.3%. Rate increases for Industrial firm customers would vary between 8% and 10.9%, depending on the Industrial rate schedule under which they are served. Washington Residential customers would see bill increases of 6.4%, or about \$4.79 a month. NW Natural's Commercial customers in Washington would see a 6.5% increase, while Industrial customers will see increases ranging from 4.8% to 7.3% (depending on the Industrial rate schedule). If approved, the increases would take effect Nov. 1, 2006.

Canada

National Energy Board (NEB)

Chevron Canada Limited Application for Declaration of Significant Discovery: The NEB has received an Application for a Declaration of Significant Discovery dated August 3, 2006 pursuant to section 28 of the Canada Petroleum Resources Act (CPRA) from Chevron Canada Limited in respect of the Chevron et al Langley K-30 well in the northern Northwest Territories. Once the Board has examined and considered the application, the Board will give written notice of its intention to make a decision with regard to the application to persons the Board considers to be directly affected. Directly affected persons are requested to notify the Board by September 21, 2006. A decision is expected in November. The discovery well is anticipated to contain natural gas.

Alliance Pipeline (AP) Tariff Amendments re Firm Service Capacity: Via letter dated August 1, 2006 AP has filed tariff amendments to the General Terms and Conditions of its Canadian Tariff with the NEB to explicitly address the awarding of any existing firm service capacity that might become available on its otherwise fully-subscribed system in the atypical circumstances of a shipper default. In part this has been triggered by the fact that 20 MMcf/d of firm service capacity came available this spring as a result of the repudiation by Calpine Energy Services Canada Partnership of its long-term transportation service agreement. AP has been re-contracting that capacity on a short-term basis at the full posted service tolls. It is contemplated that that full service capacity will be awarded on a long-term basis this fall via an auction process.

AP proposes to follow a similar process if/when additional firm service capacity that is already contracted becomes available. AP contends that the contemplated auction of

firm service capacity on a long-term basis will yield tolls that are "just and reasonable and not unduly discriminatory" and therefore satisfy the fundamental principles set out in sections 62 and 67 of part IV of the NEB Act. In this connection AP submits that the tolls determined by the proposed auction process "may be appropriately distinguished on the basis of changed market conditions relative to those which existed at the inception of the pipeline system" and that "the outcome of the auction process will have no bearing on the tolls being paid by incumbent shippers". Once the result of an auction is known, AP will file an amended toll schedule with the Board.

British Columbia

Applications by Pacific Northern Gas (PNG) Ltd. and PNG (N.E.) Ltd. for Approval of 2006 Rates: In their respective applications the companies requested increases in delivery rates to all customers. The British Columbia Utilities Commission (BCUC) has approved the applications but the approved rates are less than the interim rates that have been in effect since the beginning of the year. PNG is therefore required to inform its customers of the final rates and provide a method for refunding the excess payments. The utility is also required to file permanent Gas Tariff Rate Schedules and regulatory schedules consistent with Orders G-99-06 and G-100-06 of August 21, 2006.

Terasen Gas Inc. (TGI) Residential Customer Commodity Unbundling Project: Via Order C-6-06 dated August 14, 2006 the BCUC has granted TGI a Certificate of Public Convenience and Necessity with respect to the residential commodity unbundling project for residential customers in all service areas except Fort Nelson and Revelstoke commencing November 1, 2007. This will allow gas marketers to solicit gas sale contracts to residential customers that would be effective as of that date.

The administrative standards and practices will be essentially the same as in the case of commercial customer unbundling that has already been approved. Voice signatures for new contracts and contract renewals were not approved by the BCUC but electronic signatures will be permissible. The Commission rejected TGI's request to continue its Stable Rate Offering (SRO) beyond 2007 because it felt that the SRO could create an uneven playing field that would make it difficult for marketers to compete. The Code of Conduct has been amended to require that contracts between a marketer and residential customer include a provision that all disputes arising out of the contract be referred to and resolved by arbitration administered by the Commission. The Performance Bond as a requirement for a gas marketer's license will remain at \$250,000. TGI is to consult with gas marketers and BCUC staff in the development of a customer education plan.

Alberta

Major Alberta Govt. Policy Announcement: On August 25th the Alberta Minister of Energy unveiled Alberta's "Integrated Energy Vision". The Vision provides a high level perspective of Alberta's energy future. It reflects both present realities and opportunities for the energy industry and is regarded as a road map to help guide future government policies and strategies related to continued energy development in Alberta. Essentially, the emphasis is on an integrated approach that is touted to mean a significant shift in direction from treating energy projects and commodities on a stand-alone basis to considering them as part of a larger system in which maximizing the value added by Alberta production is seen as a cornerstone. For example, efforts will be made to ensure that as much of the bitumen that is extracted from the oil sands is upgraded and refined in Alberta as possible and that the province's rich natural

gas, oil and coal resource inheritance is used to ensure further expansion of the province's petrochemical sector.

It is unclear what the new policy focus means for future natural gas exports. However, the emphasis on developing unconventional resources such as coal seam gas, and on reducing the reliance on natural gas in oil sands bitumen production, suggest that gas production in excess of domestic requirements could decline less rapidly than otherwise.

EnCana Corporation Gas Plant Application: EnCana has applied to the Alberta Energy and Utilities Board (EUB) to construct and operate a plant for the compression, dehydration and refrigeration of gas produced from wells located in an area approximately 4 kilometres northwest of the hamlet of Irricana.

Decision re ATCO Gas (AG) 2005-2007 Phase I General rate Application: EUB Decision 2006-083 dated August 11, 2006 deals with information put forward by ATCO Gas in support of its 2005-2007 revenue requirement as requested by the Board in Decision 2006-004. The Board has ruled that AG must address short-term debt separately for its north and south divisions rather than for AG in total. Also, that the 2006 and 2007 revenue requirements must reflect the change in the Alberta corporate income tax rate.

Ontario

Ontario Energy Board (OEB) Decision on Framework for Gas Conservation Programs: The Board issued a Decision on August 25th on the results of a re-examination of the regulatory regime that applies to demand side management (DSM) initiatives undertaken by natural gas utilities. Decision 2006-0021 deals with a large number of DSM issues. Generally, where appropriate and practical, a rules-based and framework

approach has been established whereby the utilities will be required to submit for approval DSM plans that span a three-year period commencing January 1, 2007. Many of the terms of the three-year plans will essentially be locked in for the term of the plan and will not require further review by the OEB. This should result in significant regulatory cost savings.

Other, broader matters addressed in the Decision include processes for adjustments during the term of a DSM plan; formulas for determining DSM targets, budgets and utility incentives; determination of how costs are to be allocated to rate classes; a framework for determining savings; a framework and process for evaluation and audit; and the role of the gas utilities in electricity conservation and demand management activities. The next step will involve the OEB issuing a procedural order for the next phase during which the input assumptions that are to be used will be determined. When the input assumptions are known, the gas utilities will be in a position to file their respective three-year DSM plans.

Natural Gas Practice »

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About Navigant Consulting

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