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NAVIGANT CONSULTING

NG Market»notes

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Lessons from the Natural Gas Market

As we have noted here a number of times, this has been quite a year in the natural gas business. The impact of weather and some infrastructure-related issues have caused unprecedented seasonal price volatility, which is finding its way into influence on the regulatory process, the political process, and, of course, the industry's various economic choices.

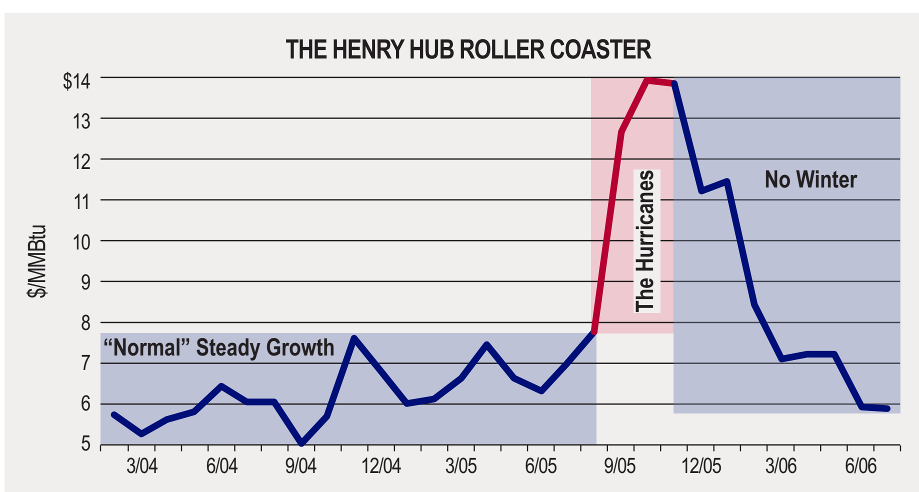
While there are a lot more sophisticated ways of examining this volatility, a simple portrait of first-of-month Henry Hub cash prices tells most of the story.

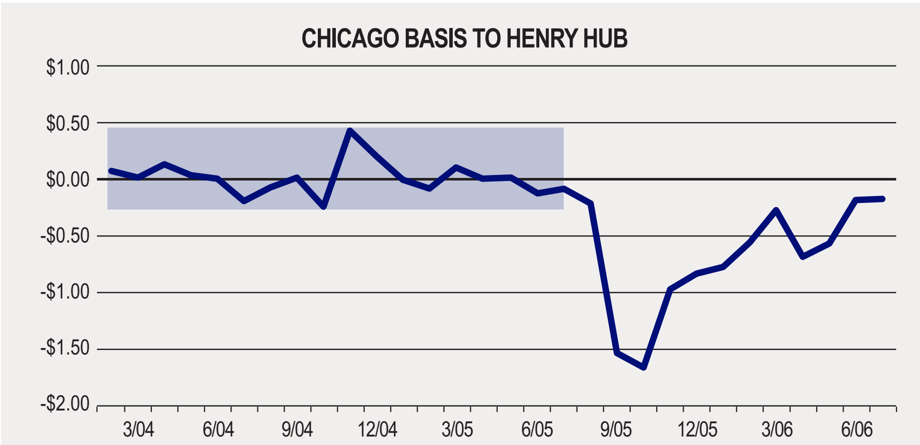
Looking back two and a half years, up through the latter part of last summer, the price behaved normally, bouncing around from $5.00 to a little over $7.00, and trending gently upward as demand grew a little faster than supply. Prices were high in the winter and bottomed-out at the end of the storage-injection season.

Then the hurricanes happened, Katrina, Rita, and Wilma. The price went crazy as the nation braced for a winter with 15 percent of our supply missing. The first-of-month price got up to about $14.00, and some mid-month prices went even higher.

By December, everyone was ahead of the curve because of mild weather, and because of a remarkable job of recovery by the industry. And then the warmest January in something like 110 years caused demand and prices to fall through the floor. By this July 1st, the price was lower than it had been on either of the last two July 1sts. Now storage is expected to be completely full by August, and prices are being driven almost exclusively by heat and the resulting generation load.

One other implication of the chaos of the last year was in the relationship among prices. A good representative comparison is the relationship between Henry Hub and the Chicago city gate. Chicago benefits from Canadian supply, Rocky Mountain supply, Mid-continent supply, and a lot of storage, in addition to having direct access to Louisiana and the Henry Hub.





Up until last summer, the price relationship behaved the way one would expect-Chicago was periodically a little over or a little under the Henry Hub price, spiking some in the winter to almost 50 cents above Henry. But then the hurricanes and the aftermath of the mild winter caused the relationship to reverse to unprecedented levels-at one point, Chicago was $1.66 cheaper than Henry, and as can be seen by the graph, the "stable" situation of this spring and summer has hovered around a Chicago price that is 50 cents cheaper than Henry.

So here we are again, entering the heart of hurricane season. We certainly cannot design a national system around the assumption that there won't be any winter. And meanwhile the political landscape is difficult for fixing anything, because consumers are still feeling the effects of last year's price spike through utility purchased gas adjustments and through electric prices.

What are the implications of all of this? All of these unprecedented dynamics were driven by weather, by Gulf hurricanes and by a record mild winter. In other words, they were driven by factors that we can neither control nor even predict very accurately. This leads to an answer simple to discern but hard to implement: Lots and lots of infrastructure is needed, focused around coping with seasonal uncertainty, supply diversity, and overall responsiveness of supply to demand. This primarily means three kinds of investments: storage, pipelines from emerging supply areas, and expansion of the capability to receive and deliver supplies such as LNG.

Plenty of such investments are in the works, from the many proposed storage projects (albeit, not as many as the FERC would like to see), to monster supply pipelines ranging from the competing Rockies outlets to Alaska, to the 50 or so LNG terminals that are being promoted.

The FERC has done its part, as Chairman Kelliher pointed out recently. On June 19, Order No. 678 was issued, creating new flexibility in how market-based storage projects might be assessed in the regulatory process. Three days earlier, on June 16, the FERC issued a notice of proposed rulemaking in Docket No. RM06-7, proposing enhancements to the availability of self-implementing authority for facility expansions. On June 15, the FERC issued its policy statement in Docket No. PL04-3, and approved an expansion of the Cove Point LNG facility including the resolution of a very contentious gas-quality issue raised by the contiguous utility. Meanwhile, the FERC has been churning out LNG terminal authorizations, environmental impact statements, etc., at an impressive pace.

We are embarking upon the era of a new FERC, one actually filled up to its quota of five Commissioners for the first time in years. The three new Commissioners, Philip Moeller, Jon Wellinghoff, and Marc Spitzer, will bring fresh perspectives to the FERC, in particular a lot of concerns from the West and Southwest involving both gas and electricity. Of the three, Commissioner Spitzer has the immediate past public record as a regulator, in Arizona, and he has been very vocal as to the importance of new infrastructure investment. This is a promising indication as to whether the FERC will continue its excellent record at meeting Chairman Kelliher's goal of encouraging new investment.

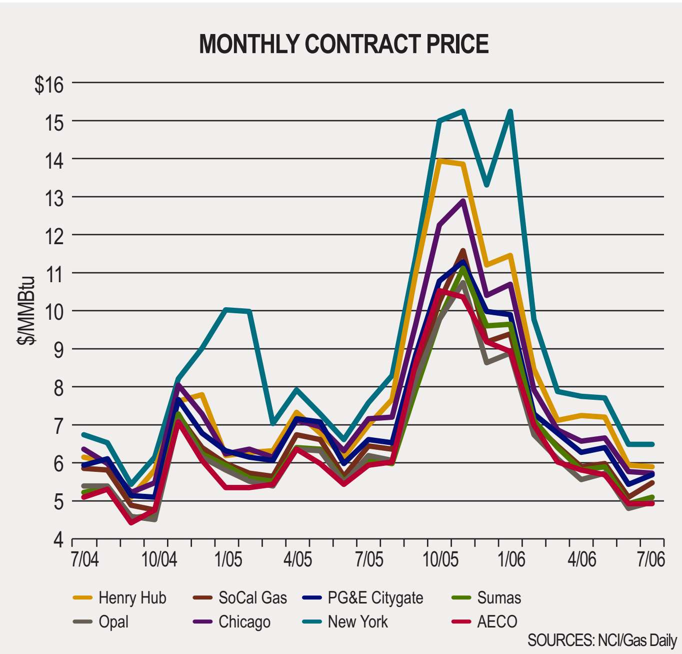
However, there is a very basic economic issue that will continue to be troublesome to the development of new infrastructure. That issue is simple: many of the big, new infrastructure investments gain their value from adding to the ability to respond to unknown future events, or from adding to supply diversity. Both types of investment are hard to populate with long-term shipper commitments that can support the investment. For example, a storage field serving a temperature-sensitive heating market, sized and priced around normal summer-winter differences in demand and prices, is easy to sell out. But a storage field dealing with potential mismatches between weather-driven demand and weather-impaired supply tends to get sold as a commodity play, usually a much shorter-term proposition.

So, as Chairman Kelliher has pointed out, the FERC has created a stable, inviting environment for the development of new infrastructure-the challenge now is for the industry to find the shippers and buyers to commit at a level that can allow that infrastructure to get built.

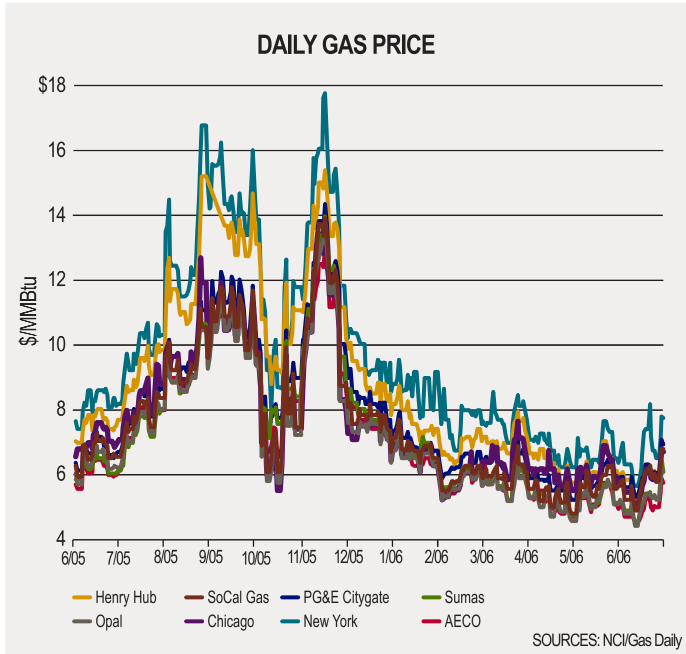
- Rick Smead

NCI Natural Gas Market Fundamental Analysis

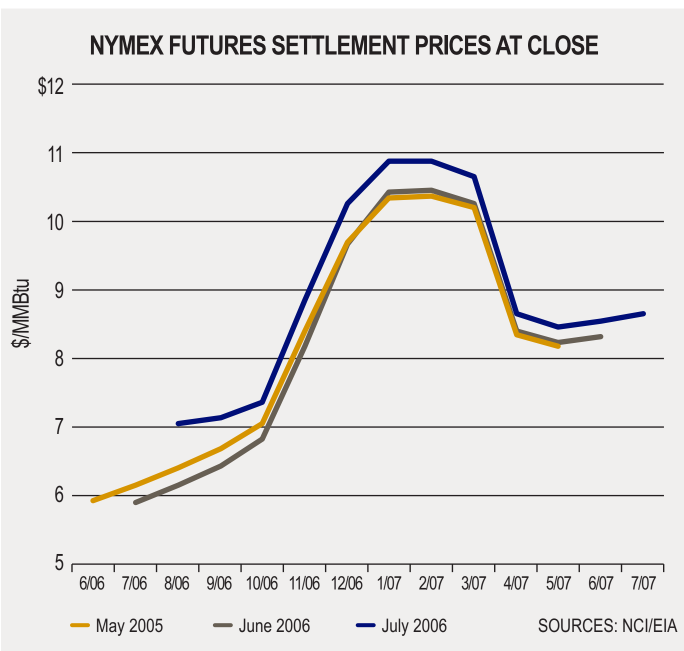
The Average July Monthly Index Was Up $0.12 per MMBtu for Select Locations



July Daily Gas Prices Increased Approximately $1.00-1.50 per MMBtu on Warm Weather - Still Below Prices In July 2005



August NYMEX Closes at $7.04 per MMBtu, Up $0.88 per MMBtu from Last Month; 12 Month Strip Up By $0.68 per MMBtu to $8.95 per MMBtu



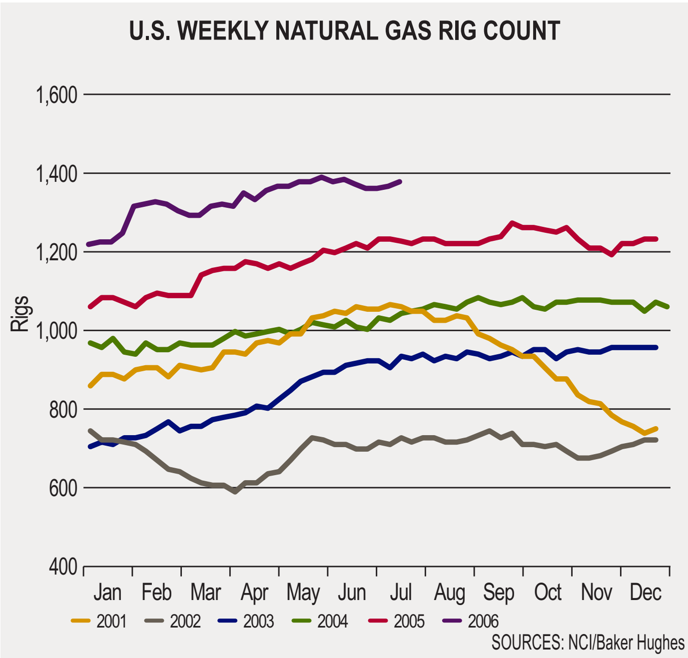
Most Price Forecasts Now Below $8.00 per MMBtu for Calendar Year 2006

NCI PRICE PREVIEW

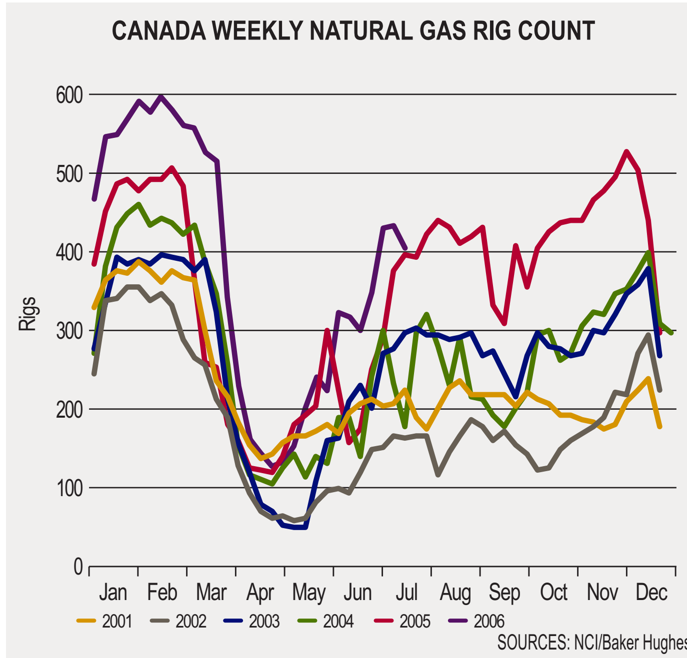
Source	2006 Price Forecast ($/MMBtu)
Raymond James	$7.81
Lehman Brothers	$7.75
EIA Henry Hub	$7.61
RBC Capital Markets	$7.50
Bank of America	$6.50
EEA	$6.40
NCI	$8.30

SOURCE: NCI Survey/NCI

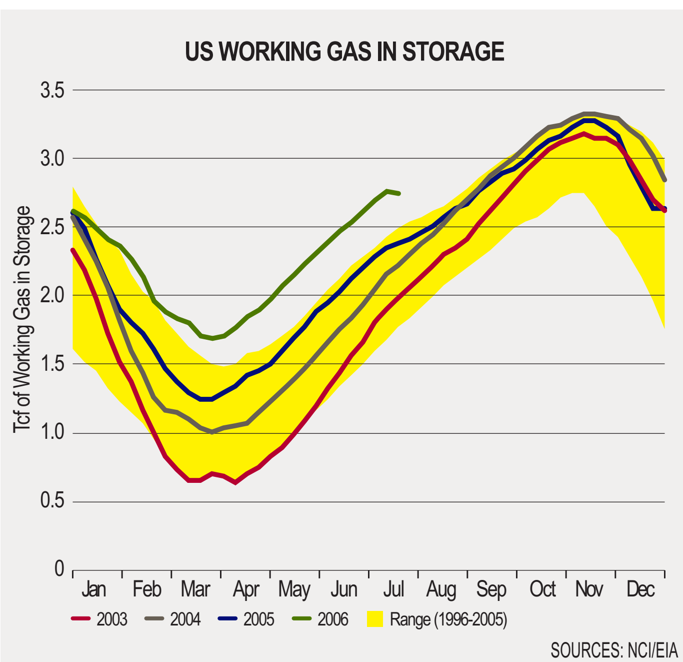
US Gas Rig Count Up 10 Rigs Month over Month to 1,381 Rigs Working During Week 29 - 12% Greater than Last Year



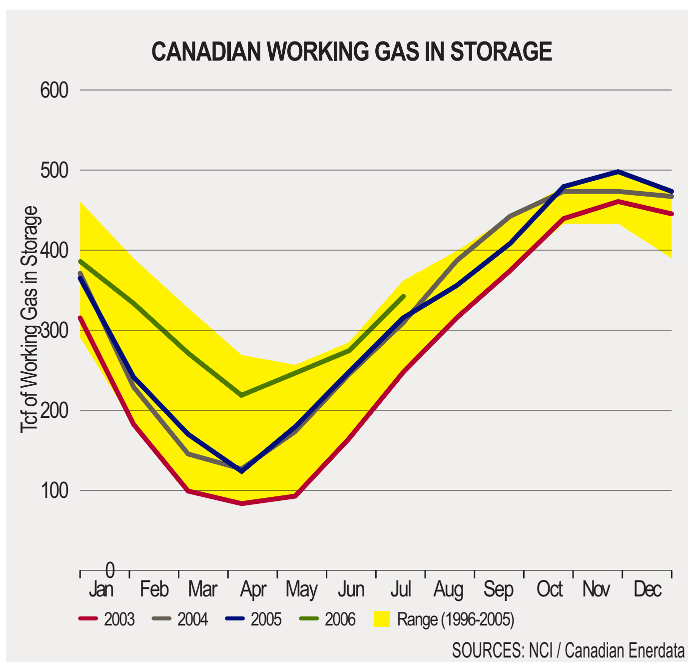
Canadian Gas Rig Count at 406 Rigs Working Compared to 395 Last Year



US Gas Storage Inventory at 2,756 Bcf in Storage as of July 21, 2006; 84% Full and 127% of Normal



Canadian Storage Inventories at 343 Bcf; 13% Ahead of Normal



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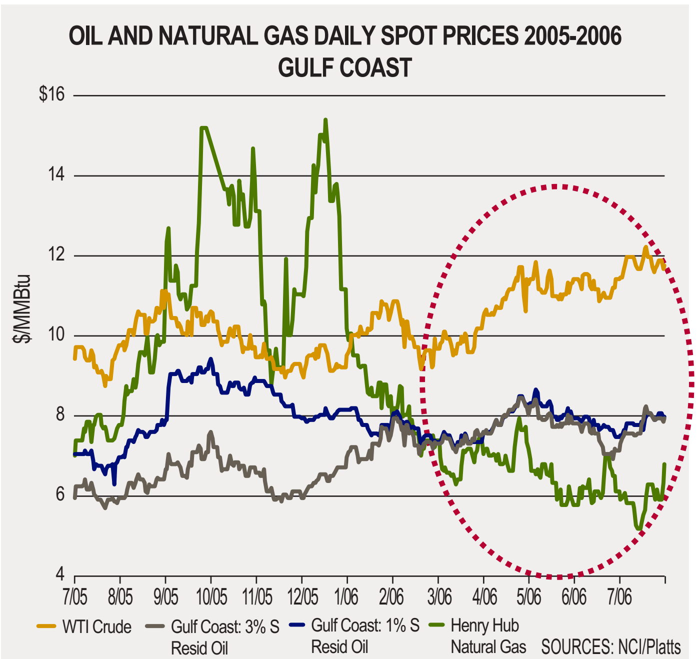
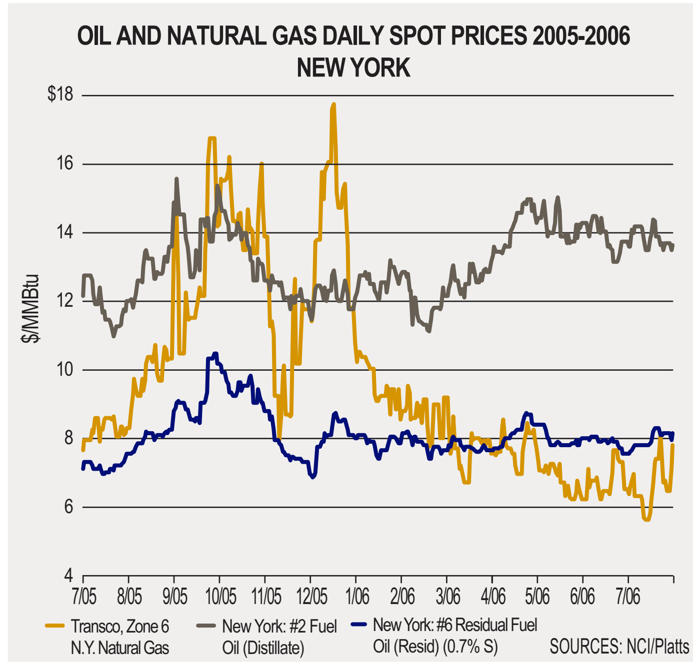
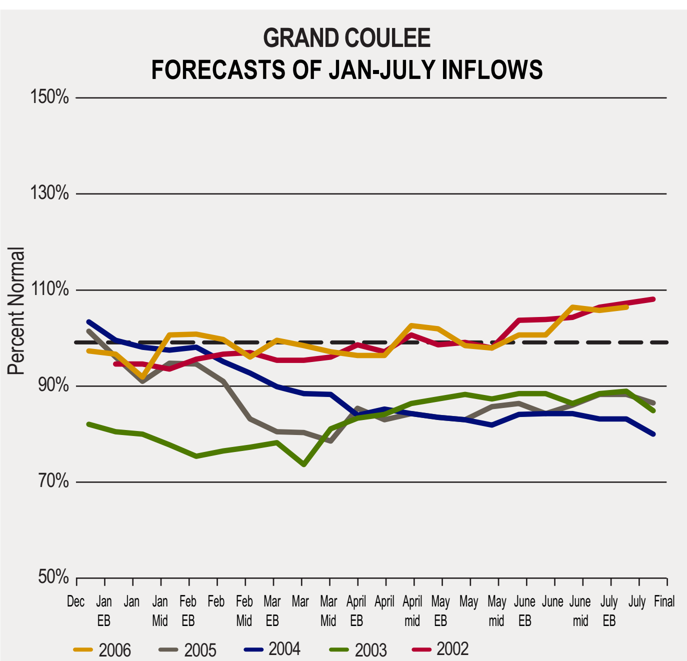
Gas Prices in Gulf Coast Continue Below Regional Oil Complex Prices - WTI Oil at $11.75 per MMBtu - Henry Hub at $6.80 per MMBtu



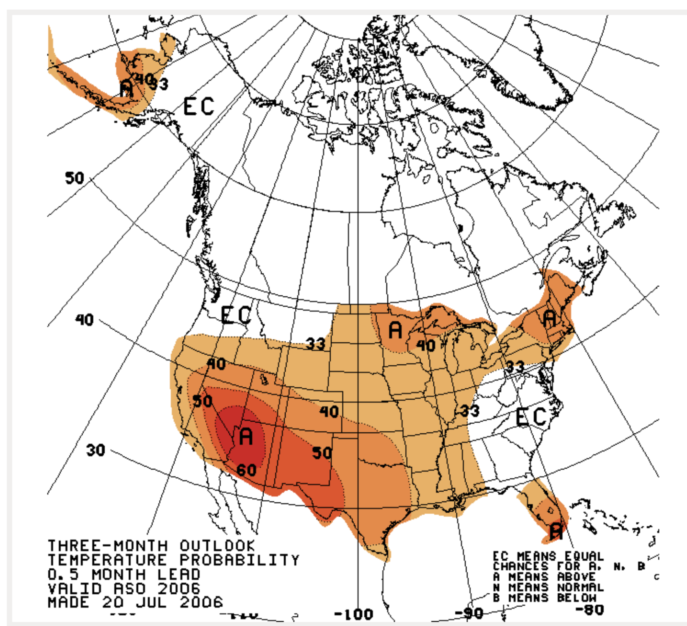
New York Gas Prices Also Below Oil Complex in Region



Pacific Northwest Hydro Runoff Continues at Levels Solidly Above Normal for First Time Since 2002 at Grand Coulee, WA on Upper Columbia



The Temperature Outlook For Aug-Sep-October (ASO) 2006 Calls For Warmer Than Normal Conditions Over Most of The U.S. West of The Mississippi River. Above Normal Temperatures Are Also Expected in New England and the Florida Peninsula. Elsewhere There Are Equal Chances of Warmer-than ... Cooler-than... or Near-normal Temperatures During ASO



SOURCE: National Weather Service

NAVIGANT CONSULTING

Key Legislative and Regulatory Highlights

USA

Federal Energy Regulatory Commission

On July 13 the Senate confirmed three new commissioners to serve at FERC: Philip D. Moeller, Jon Wellinghoff and Marc Spitzer. Moeller is head of the Alliant Energy office in Washington, D.C., and is a former aide to Sen. Slade Gorton, R-Washington. He also served as the staff coordinator for the Washington state Senate Committee on Energy, Utilities and Telecommunications. He will serve a term expiring June 30, 2010. Wellinghoff, an attorney, was Nevada's first consumer advocate and served as staff counsel to the Nevada Public Utilities Commission. He will serve a term expiring June 30, 2008. Spitzer, an attorney specializing in tax law, was elected to the Arizona Corporation Commission in 2000, and served in the Arizona state Senate prior to that. He will serve a term expiring June 30, 2011. The three new FERC members are not expected to be sworn in before the Commission's July 20 meeting.

California

CA State Legislative Developments

Governor Signs On-Time Budget; Energy Gets a Boost in Funding: On June 30, 2006, Governor Schwarzenegger signed the budget for fiscal year 2006-2007. The budget allocates $1.3 billion to the California Public Utilities Commission (CPUC), an increase of $18.6 million over last year and slightly higher than the $1.2 billion in the governor's first budget proposal in January. The California Energy Commission (CEC) received $327.9 million; $106 million less than last year and slightly higher than the governor's January proposal of $327.7 million. The drop was due to one-time expenditures in 2005-2006 that were not planned to be repeated in the 2006-2007 fiscal year. The budget also allocated $30.4 million to fund a multi-agency climate-change initiative to reduce greenhouse-gas emissions, of which $28.2 million will go to the state Air Resources Board to develop clean alternative energy fuels. The CPUC will receive $539,000 of this amount to promote renewable energy and expand energy efficiency programs. The budget also allocates $3.9 million to the state Electricity Oversight Board, the same amount requested by Schwarzenegger in his budget proposal.

Pacific Northwest

Regulatory: In Puget Sound Energy's ("PSE") current general rate case (Docket Nos. UE-060266 & UG-060267), the Washington Utilities and Transportation Commission ("WUTC") staff has recommended increasing PSE's gas rates by 2%, an annual $19 million revenue increase and lowering electric revenues by 2.4% or $41 million annually. The staff's recommendation is based on an overall 7.85% rate of return (9.38% return on equity, at 43% of the capital structure). PSE filed its general rate case February 16, 2006, requesting $51.3 million gas and $148.8 million electric annual revenue increases. The WUTC staff's recommendations included an alternative gas revenue decoupling proposal to the mechanism proposed by PSE. Unlike the PSE version, the staff's decoupling proposal would not include a weather adjustment. The general rate proceeding is scheduled to conclude in early Q1 of 2007.

MDU Resources Group, a Bismarck: ND company that operates natural gas and electric utilities in five states in the Rocky Mountain and upper Midwest region of the U.S. announced it has agreed to buy Seattle, WA based Cascade Natural Gas for $475 million or $26.50 per share. The deal requires the approval of utility regulators in seven states as well as Cascade Natural Gas' shareholders. If approved, Cascade would add 235,000 customers in Washington and Oregon and would about double the number of natural gas customers in MDU's utility subsidiaries, Montana-Dakota Utilities and Great Plains Natural Gas. Cascade has a 4.5% general rate increase request pending in Washington State, its first since 1995.

Canada

National Energy Board (NEB)

Mackenzie Valley Pipeline Hearings Delay: The NEB is expected to complete its scheduled hearings by the end of 2006 as planned. However, the Joint Review Panel (JRP) which is holding hearings on environmental aspects of the pipeline proponents' application has now indicated that it will require a four month extension – to the end of April 2007 – to complete its hearings. The JRP is then to submit its recommendations to the federal government. The JRP's submission and the government's response will be filed with the NEB which will reconvene for final argument. The four-month delay in the hearing process because of the JRP's requirements suggests that the NEB's decision on the application to construct the pipeline may not come until early in 2008. Assuming that the application is approved, this probably means that the first full year of operation of the pipeline will be 2012 at the earliest.

Decision regarding Regulatory Jurisdiction over Mackenzie Gathering System: In a July 2006 Decision the NEB dismissed arguments by a group of companies called the Mackenzie Explorers Group that the gathering system supplying the proposed Mackenzie Valley Pipeline should be considered part of the pipeline and therefore fall under the NEB's jurisdiction. This means that regulation of commercial matters on the gathering system will come under the *Canadian Oil and Gas Operations Act* (COGOA) which is administered by the federal government. Under the COGOA, tolls, tariffs and access will have to be negotiated between the prospective shippers and the Mackenzie Valley Pipeline on a commercial basis without any regulatory recourse. (If the gathering system were deemed to fall under the *NEB Act*, shippers would have had the opportunity to request the Board to act to impose just and reasonable tolls and access rights.)

Hearing on New TransCanada Pipelines Mainline Services Request: The NEB has announced that it will hold a hearing in Toronto in September to review an application by TransCanada to make certain changes to the Mainline tariff. The proposed changes would allow TransCanada to implement two new short notice services: Firm Transportation-Short Notice service (FT-SN) and Short Notice Balancing service (SNB). The new services are intended to meet the needs of gas-fired electrical power generators who require flexible operations and a firm gas supply to serve fluctuating and weather-sensitive electricity demands. The FT-SN service would allow a shipper to closely match its gas transportation with changes to the electricity markets by nominating for service as often as every 15 minutes. The SNB service would facilitate the effective operation of the FT-SN service by providing access to the Mainline system's flexibility for balancing purposes.

Canadian Energy Pipelines Assessment: The NEB has released a new report in its market assessment series. *An Assessment of the Canadian Hydrocarbon Transportation System* reviews the adequacy and efficiency of the oil, gas and product pipelines regulated by the Board and highlights potential new challenges. The report indicates that growth in demand for natural gas in North America is expected to exceed domestic supplies, with gas demand for oil sands bitumen production requirements alone expected to triple over the next decade from 0.7 Bcfd to 2.1 Bcfd. It is noted that LNG will be important for meeting the domestic supply shortfall and that new pipelines will be needed to feed the incremental supplies of LNG into the transportation system. However, the report authors also point out that there is considerable uncertainty surrounding the potential effect that increased LNG imports will have on gas transportation flow patterns throughout North America.

British Columbia

Kitimat LNG Connection to the Westcoast Energy Gas Transmission System: Kitimat LNG Inc. and Pacific Northern Gas Ltd. have announced the formation of Pacific Trail Pipelines Limited Partnership, a 50/50 partnership between Pacific Northern Gas and Galveston LNG Inc. (the parent company of Kitimat LNG). The Partnership's objective will be to develop a natural gas transmission system to carry gas from Kitimat LNG Inc.'s proposed LNG terminal near Kitimat to Summit Lake, British Columbia. The terminal and the transmission system (labeled the KSL Project) could commence operations late in 2009, subject to the satisfaction of a number of conditions, including obtaining LNG supply for the terminal, British Columbia Utilities Commission approvals for the KSL Project, and financing. Pacific Trail Pipelines will be able to accept up to 1,000 MMcf/d of regasified LNG. This compares with PNG's current system capacity of approximately 115 MMcf/d. At Summit Lake the new pipeline system will connect with Duke's Westcoast Energy transmission, thereby enabling the delivery of gas from the Kitimat LNG terminal to markets throughout North America.

Upon completion of the KSL Project, Pacific Northern Gas' existing transmission system will be transferred to the Partnership and integrated with the KSL Project facilities. Pacific Northern Gas will continue to own and operate its existing gas distribution systems, including its Customer Care Centre in Terrace.

Pacific Northern Gas actually commenced the environmental regulatory review process necessary for the KSL Project by filing a project description with the B.C. Environmental Assessment Office in September 2005. The project will entail the construction of approximately 470 kilometers of a 30 or a 36 inch diameter pipeline and any required compression facilities, at an estimated cost of $900 million or $1.2 billion, respectively. The routing will be determined through technical field studies and consultation with First Nations, the public and regulatory authorities. Pacific Northern Gas' existing right-of-way will be used where appropriate.

Alberta

NOVA Gas Transmission Ltd. (NGTL) Rates for CO2 Management Service: NGTL has applied to the Alberta Energy and Utilities Board (AEUB) for approval of a change to the methodology for determining the rates for CO2 Management Service that includes a mid-year rate review because of changing gas fuel costs. The application arises from the deliberations and unanimous consent of the Tolls, Tariffs, Facilities & Procedures Committee. NGTL has submitted a revised Table of Rates, Tolls and Charges for the Gas Transportation Tariff with revised CO2 Management Service rates determined in accordance with the proposed mid-year review, to be effective as of August 1, 2006. With the proposed change in methodology, NGTL has indicated that the gas price incorporated in the rates for CO2 Management Service would henceforth be revisited early each May with new rates to be effective each July.

ATCO Application re Benchmarking of Customer Care: On July 14, 2006, ATCO Electric, ATCO Gas and ATCO Pipelines (collectively ATCO) applied to the AEUB with the support of the other parties in the Collaborative Process Committee (CPC) for approval of the Terms of Reference for the Benchmarking of Customer Care and Billing Services (CC&B) that ATCO currently receives from ATCO I-Tek Business Services Ltd. The CPC requested that the Board approve an extension to the period covered by the benchmarking of both the Information Technology and Customer Care and Billing Services Master Service Agreements to include the year 2007. The Committee also indicated that the Terms of Reference for the Benchmarking of CC&B are in accordance with AEUB Decisions 2005-037 and 2005-039.

Ontario

Ontario Energy Board (OEB) Right to Consider Impact of Cushion Gas Sale on Rates: In a June 28, 2006 decision pertaining to a Union Gas Limited (Union) rate application, the OEB ruled that it has authority under the *Ontario Energy Board Act* to consider the impact of the sale of cushion gas by a gas distributor in setting rates. The Board claimed that its authority arises from section 36 of the Act which states: "No gas transmitter, gas distributor or storage company shall sell gas ------- except in accordance with an order of the board which is not bound by any contract." The Board took care to point out that the decision does not violate the principle that retroactive rate making is to be avoided since the matter was deferred because it was in the interest of all parties to wait to obtain guidance from the Supreme Court of Canada in what appeared to be a very similar case (ATCO Gas and Pipelines Ltd. v. Alberta). As a consequence of its decision the OEB has announced that it will soon hold a proceeding to examine the consequences of the sale of cushion gas by Union and whether the company's rates should be impacted.

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About Navigant Consulting »

Navigant Consulting is a global professional services firm with over 1,900 consultants in offices worldwide. We are one of the largest management consulting firms in the US extensively focused on the energy and electric power industries. Our fundamental mission is to help clients navigate the changing business and regulatory environment through sound advice, accumulated experience and world-class expertise. Out of its Sacramento, Houston, and Washington, D.C. offices, the Natural Gas Practice focuses on the North American market offering fuels services to utilities and public entities, financial services companies, independent power producers, natural gas producers, pipelines, LNG developers and large industrial end-users. Among other tasks performed for clients, the Natural Gas Practice has performed due diligence analyses and market analyses/price forecast studies, provided contract support (transportation, supply and storage), developed fuel plans, and provided litigation and regulatory support.