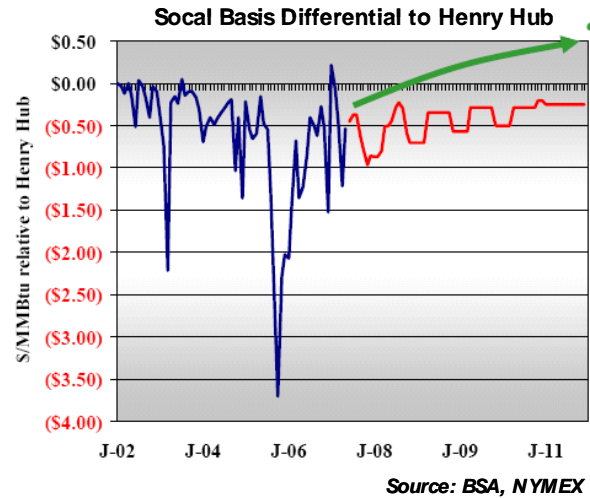


West Coast Gas Market Faces Uncertain Future

Gas prices on North America's Pacific Coast could reverse course if, as some analysts expect, a new supply paradigm emerges in the region. This amply-supplied market has long enjoyed significant price discounts to Louisiana's Henry Hub benchmark. But flows from north of the border are declining and gas from the Rocky Mountains will start moving east to higher priced outlets when new pipeline infrastructure comes on-line in 2008. Import options are also dwindling as terminal projects fall prey to California regulators and widespread public opposition to LNG. Pundits are predicting an end to the era of low gas prices, raising the hopes of developers still in the race. But even those projects that escape the regulatory axe must still compete against deep-pocketed Asian buyers for supplies.

Southern California border prices have dipped significantly below Henry Hub in recent years. Lower SoCal prices have not always been the rule, however, and they may yet trade closer to the benchmark – possibly even at a premium – in the future.



Large volumes of gas from producing regions in the Western Canadian Sedimentary Basin and the Rockies first entered the Californian market in the 1990s, causing SoCal border prices to fall below Henry Hub. They have remained stubbornly under this marker ever since, notwithstanding the occasional spike above parity. But futures contracts show the discount to Henry Hub narrowing as the market takes into account the new supply realities in the region.

The next tranche of gas from the Rocky Mountains will not be piped west via the Kern River pipeline. Instead, it will move east via the Rockies Express Pipeline, otherwise known as Rex. A joint venture grouping Kinder Morgan, Sempra and ConocoPhillips is building the 1,679-mile line, which will extend from Colorado's Rio Blanco county to Monroe in Ohio. The \$4.4 billion project will be able to transport 1.8 Bcf/d, and customers have signed binding commitments for nearly all of this capacity. Rex's 713-mile western leg, which will run to Audrain county in Missouri, is due in-service on January 1, 2008. The 638-mile eastern leg that will extend the line to Munroe county is scheduled for completion by the end of 2008 and the entire pipeline should be operational by June 2009. In addition to diverting supplies away from California, Rex could have an impact on the West Coast by bringing regional prices more in line with those in the east.

Gas supplies from Canada are declining as well. California relies on the Western Canadian Sedimentary Basin, which accounts for 98% of the country's production, for about a fifth of its gas needs. Drilling activity in the basin began to drop in 2006, largely due to escalating costs for rigs and skilled workers. This led Canada's National Energy Board to revise its production forecast in May, just seven months after releasing its previous projection. According to the most recent forecast, average annual Canadian gas deliverability is expected to total 16.8 Bcf/d in 2007 and 16.4 Bcf/d in 2008. The 2008 outlook is almost 1 Bcf/d less than NEB's last estimate published in October 2006.

More of this gas will also be needed to meet domestic demand in Canada. This is certainly the case in Alberta, where the Canadian Association of Petroleum Producers predicts up to 3 Bcf/d will be required by 2020 for use in oil sands production. A substantial share of the gas necessary to serve these ventures was to be supplied by the Mackenzie Delta gas project (see related brief below). But ExxonMobil now says the pipeline's new \$15 billion price tag makes Mackenzie Delta uneconomic. Rising costs are having a similar impact on a pipeline proposal to deliver gas from Alaska's North Slope to the Lower-48 states. Affiliates of ExxonMobil participate in both projects as major partners and the company does not see either pipeline coming onstream before 2020, leaving a considerable gap in North American supply.

One would have thought this would put LNG on the West Coast's radar screen. But setbacks at Sound Energy's Long Beach project and BHP's Cabrillo Port facility call into question the Golden State's willingness to host terminals either on or off the Californian coast. South of the border in Mexico's Baja California, Sempra is sampling interest in a 1.5 Bcf/d expansion at its Energía Costa Azul facility. But the terminal's first 1 Bcf/d, which is slated to begin operations in 2008, is likely to be underutilized if volumes reserved for Sempra from Indonesia's Tangguh venture are diverted to Japan and Shell follows suit by redirecting cargoes from Russia's Sakhalin II. The two companies share phase I capacity equally.

Further north, Oregon LNG has started the federal pre-filing process for its import terminal at the mouth of the Columbia River. The project, formerly known as the Skipanon Natural Gas facility, was acquired from Calpine and is headed up by two former executives from the power generator. Oregon LNG began development activity in early 2004, and company officials say the selection of the 96-acre site was made with extensive local input. The site, which is leased from the Port of Astoria, was rezoned to accommodate the 1 Bcf/d facility. A 117-mile takeaway line to the Oregon hub at Mollala is also planned. The project is due on-line in 2012.

Progress is also being made across the border at Kitimat LNG in Canada's British Columbia. Located about 500 miles north of Vancouver, this project is relatively unique in that it has all regulatory approvals in place. Although other opportunities are being pursued, the oil sands industry is a prime target market for Kitimat. The venture sees prices at the Alberta hub approaching Henry Hub, similar to expectations at the SoCal border. Neither Kitimat nor the Oregon project has lined up LNG, but their sponsors hope to eventually attract supply with higher regional prices.