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The impact of natural gas prices on Calgary's office leasing market

BACKGROUND

Calgary's downtown is home to approximately one in seven Canadian corporate headquarters, by far the highest per-capita concentration of head offices in Canada.[1] Most of these companies are engaged in natural gas exploration and production within the hydrocarbon-rich Western Canadian Sedimentary Basin, which spans parts of British Columbia, Alberta, Saskatchewan and Manitoba. While oil prices are currently at a level where exploration and recovery are economical, dry natural gas prices are not.[3] Improved extraction techniques, low domestic demand, and the absence of large-scale deliverability to emerging Asian markets have left North American natural gas reserves 41 per cent above the same period last year.[2] As a result, the trading price of conventional natural gas is now below the full cost of production, and many producers are shifting priorities away from dry natural gas operations toward crude oil projects.[3] The oversupply of North American-sourced natural gas and sluggish domestic demand have the potential to alter the landscape of the office leasing market in Calgary. This shift could bring much needed space back to an extremely tight downtown market. This short paper will briefly introduce the conditions that have led to the current state of North American natural gas prices and then discuss the possible impact on Calgary's downtown office leasing market.

NATURAL GAS OVERSUPPLY

At present prices, North American natural gas producers are not likely to recover the costs of locating and developing sites, or of producing gas over the lifetime of a well.[3] The major driver of this price change is the supply side. Vastly improved extraction techniques (notably horizontal drilling and multi-stage hydraulic fracturing) have increased the volume of recoverable reserves of dry natural gas significantly.

Major forces affecting supply:

- Expanded deliverability stemming from improved recovery techniques;
- Growing use of high-horsepower drilling rigs is increasing extraction efficiency;
- Producers shifting away from dry natural gas to unconventional gas or oil production.

Major forces affecting demand:

- A very mild 2011-2012 winter and spring resulting in low home heating and air-conditioning use;
- Coal is still competitive with natural gas for power generation in terms of cost per unit of energy;
- Increased use of natural gas in oil and natural gas liquids (NGL) recovery operations;
- Absence of near-term large-scale deliverability plan to export to emerging economies in Asia.

There is a strong movement on the part of producers and pipeline companies to deal with the natural gas oversupply situation by expanding deliverability to high-demand markets in Asia. Notably, Pacific Trail Pipelines, owned by a consortium of Apache, EOG Resources and Encana, has recently obtained permission from the BC Environmental Assessment Office[4] to expand the diameter of Pacific Trail's proposed natural gas pipeline. This line will connect with the Spectra Energy pipeline system to bring gas from the Montney and Horn River basins to Kitimat, BC for processing. This consortium has also received approval to construct a liquefied natural gas (LNG) processing

[1] (Calgary Economic Development, 2010)
[2] (Shore, 2012)
[3] (National Energy Board, 2012)
[4] (B.C. Environmental Assessment Office, 2012)
[5] (Shell Canada, 2012)

facility in Kitimat with a 5-million tonne annual processing capacity. This is not the only processing facility destined for Kitimat. Royal Dutch Shell, along with its partners (Korea Gas, Mitsubishi Corp. and Petro China) recently announced plans to proceed with development of a LNG export and processing facility. This facility will have the capacity to produce 12 million tonnes of LNG annually for export to Asia, although completion isn't expected until the end of the decade.[5] These projects and others like them are on long-term construction timelines; so, for the foreseeable future, deliverability remains a significant issue in North American natural gas. Large-scale domestic sources of demand, such as coal-to-gas power generation conversions and natural gas vehicles remain equally distant. Accordingly, the National Energy Board predicts that even in the case of higher prices, natural gas output will continue to decline through 2013 as producers shift away from production of this resource.[3]

LIKELY IMPACT ON DOWNTOWN CALGARY LEASING MARKET

Natural gas producers and supporting industries are moving quickly to access new markets and re-establish a sustainable supply-demand balance. However, the above-mentioned construction projects and others like them are years away and short-term prices are very sensitive to changes in supply. As a result, many producers that are highly leveraged in dry shale gas plays are slowing or stopping production and exploration. Many of these firms will likely shed some of their current office space until favourable market conditions return.

Predicting exactly how much space a given firm is likely to sublease is extremely problematic. However, Avison Young has identified 48 natural gas producers in downtown Calgary that have seen their share value drop significantly. The bottom 20 companies averaged a 59 per cent decline, while all 48 averaged a 33 per cent drop over a 52-week period. For most of these companies, the drop in share value has coincided directly with natural gas price declines. Some have already reduced staff dedicated to natural gas operations or made plans to relocate to less expensive buildings in different areas of the city. What is clear is that some of these companies will be adjusting their office space portfolios as operational priorities shift away from dry gas production.

The 48 companies identified by Avison Young for the purposes of this discussion currently occupy almost 12 million square feet (msf) of class AA, A and B spaces in downtown Calgary. These building classes combined currently have a slim 2 per cent vacancy rate in the downtown. Grouping these companies and assigning each group a percentage of potential space reduction yields a return of 1.6 msf of sublease space to the downtown market. Should the space-reduction scenario outlined below prove correct, combined downtown sublease vacancy in classes AA, A and B would rise by about 4 per cent (approximately 6 per cent total vacancy). This increase in vacancy could provide much needed expansion opportunities to oil producers, many of which are in growth mode due to strong market crude prices.

The downtown leasing market in Calgary has gone through two record years of office absorption, leaving very little available high-quality space. Vacancy in class AA space, for example, has hovered around 0.2 per cent since January, and new supply will not become available until 2014 with the completion of the now fully-leased Eighth Avenue Place West. Given the supply of space will remain very tight until 2014-2015, Avison Young expects rents will continue to escalate in the foreseeable future. We also anticipate that blocks of space coming available in class AA and A buildings to be highly sought after, with bidding wars being seen in some situations. Avison Young anticipates any supply made available by the current fluctuations in natural gas pricing will be swiftly offset by other sectors of Calgary's energy industry, which have a significant appetite for expansion space within the downtown core. ■

Firms with Largest % Share Value Loss 52 Week Δ May 14, 2011-2012	**Average % Mkt Share Loss** 52 Week Δ May 14, 2011-2012	**Current Office Space Occupied (SF)**	**Assumed % of SF Returned to Market**	**Possible SF Returned to Market**
1-10	-64.10%	388,700	35%	136,045
11-20	-47.42%	2,358,500	25%	589,625
21-30	-34.34%	3,119,400	15%	467,910
31-40	-18.85%	4,522,000	10%	452,200
41-48	-0.72%	1,366,000	0%	-
Total:	**-33.09%**	**11,754,600**		**1,645,780**

[1] (Calgary Economic Development, 2010)
[2] (Shore, 2012)
[3] (National Energy Board, 2012)
[4] (B.C. Environmental Assessment Office, 2012)
[5] (Shell Canada, 2012)

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