

The background of the cover is a scenic landscape photograph. It shows a large, rugged mountain range with patches of snow or light-colored rock. In the foreground, a calm lake reflects the surrounding mountains and sky. A person is sitting on the shore of the lake, looking out towards the water. The overall tone is peaceful and natural.

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Environmental News from BC and the World

A Strong Spirit

Fill 'Er Up!

Questioning 911

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Fill 'Er Up!



Americans are addicted to oil. George W Bush said it himself.

by Arthur Caldicott

Actually, the entire industrialized world is addicted to oil. And those countries that aren't yet fully wired on the fossil fuel junk, like China and India, are getting hooked fast.

Addicts of oil will apparently do just about anything for a fix. Few commodities — perhaps even including tobacco, alcohol and heroin — have such inelastic demand. "Gotta have it."

Canada and Iraq, in quite different ways, are in the throes of historical change which derive from a common situation — the global and particularly the US need for oil.

Both countries sit on a phenomenal amount of oil — we're number two and four respectively after Saudi Arabia. One country is under an unwelcome military assault and occupation. The other is willfully engorging on a capital assault, and a corporate occupation.

Both will contribute significantly to enriching US oil corporations and to ensuring that the US gets its fix.

The Global Context

In 2005, the US used 20.7 million barrels¹ of oil per day (MMb/d). By 2015, it is expected that the US will burn 23.5 MMb/d and by 2025, 26.1 MMb/d. That's a 26 percent increase in consumption over the twenty years.

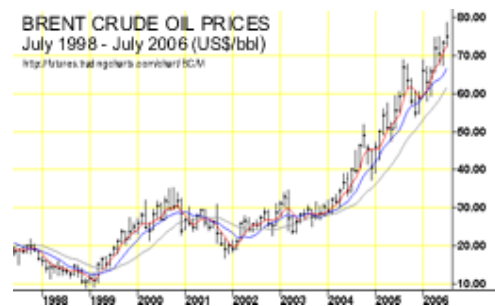
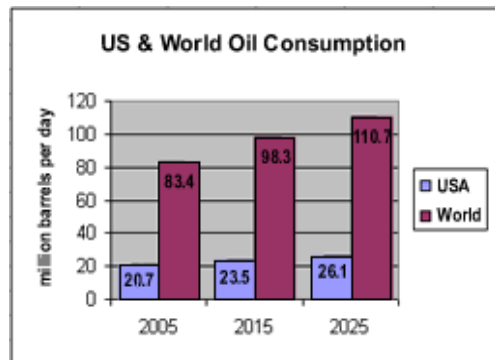
In 2005, the entire world consumed 83.4 MMb/d. The US Energy Information Administration (EIA) estimates that the world may use 98.3 MMb/d by 2015, and 110.7 MMb/d by 2025 — a 33 percent increase in twenty years.

Supply constraints, however, are a challenge to those growth projections. The world may actually be running out of oil. It is, at least, running out of easily produced oil.

Getting what's left out of the ground, and moving it to end-users, will not be

"business-as-usual." The costs and impacts — economic, environmental and social — will be profound.

The manifestations of supply constraints are everywhere we choose to look for them, but the most telling indicator is the price of crude oil. Constrain the supply of a commodity in a tight market and the price will rise. The historical price for oil remained under US\$30 a barrel since the last energy crisis twenty-five years ago. In early 2004, however, oil broke through the US\$30 level and hasn't looked back. Oil has been above \$70 for most of the first half of 2006.



To build on the addiction metaphor, our world has a serious fossil fuel dependency, and oil is a part of that. Modern civilization runs on a constant fix of hydrocarbons, burning 83 million barrels of oil, 275 billion cubic feet of natural gas, and 15.2 million tonnes of coal, every day. These are awesome quantities, beyond comprehension for most of us. Is this “civilization” even tenable without fossil fuels?

The US is the biggest junkie on the global street — with fewer than 5% of the world’s people, it uses 25% of the world’s oil.

And it has to import most of it. Sixty percent of the oil consumed in the US comes from somewhere else.

America’s next hit

Control of the world’s remaining oil resources is already shifting dramatically from the countries which produce the oil, to those nations best equipped with dollars and guns. Enter the number one oil junkie, the United States, and its giant petroleum corporations — increasingly on a permanent hunt to find the next hit.

Iraq’s boundaries encompass the fourth largest known oil reserves in the world. It is no small target, with an estimated 115 billion barrels. (Number one is Saudi Arabia with 264 billion barrels.²)

Acts of military aggression and occupation in Iraq, as well as Kuwait and Afghanistan, are viewed by many as steps by the United States and Britain to secure these oil rich territories. At least 64% of Iraq’s oilfields, fully nationalized prior to 2003, are being re-allocated since the US occupation for development by multinational oil companies.³

Canada contains the second largest reserve of oil in the world, at 178 billion barrels. Most of that is in Alberta’s oil sands.

Canada’s role as a fundamental and willing participant in America’s energy strategy is easy to understand for the obvious geographic, political and economic reasons. Canada’s oil industry is completely integrated with that of the US. Even those companies which are nominally Canadian — Enbridge, for example, or EnCana or Suncor — trade their shares on the New York Stock Exchange as well as the Toronto Stock Exchange, and there’s not much about them that makes them “Canadian,” other than a head office in Canada. They are all members of the corporate global energy plutocracy.

So it’s no surprise that American capital is marching into Alberta at an unprecedented rate. Close to one million barrels a day of oil was produced from the oil sands in 2005 (compared to Canada’s total oil production of 2.5 million barrels per day). Expectations are that oil sands production will be three or four times the current output by 2015 — somewhere between three and four million barrels per day.

\$100 billion is estimated to be invested in new production projects in the oil sands by 2020.⁴ Estimates are highly elastic, and this one is based on an oil price of \$32 per bbl. With oil at twice that price, the attraction for investment capital increases accordingly. There are, however, a couple of show-stoppers to increased oil sands production. While capital floods in, in a seemingly unconstrained rush, there are other factors which will serve to throttle down otherwise unfettered growth — workers and, ironically, energy.

It takes people to make energy

One estimate claims that the oil sands will create 240,000 jobs across Canada by 2008.⁵

Think about that for a moment. Within two years, Canada needs to find or train 240,000 new workers, just for oil sands work. Can Canada “produce” so many people in such a short period of time? Where will they come from?

They’ll have to be imported. As many as 20,000 foreigners are expected to be working in Alberta this year, nearly double the figure from 2005, driven higher by demand for labour in the booming oil sands.

Entire workforces from China could be arriving in Alberta within the next few years. These people, along with all the Canadian workers and families, will need to be housed and fed and provided with the amenities of a modern civilization. In the capital assault that is ramping up production from the oil sands, little thought is being given to these human and social needs.

And as the oil sands compete with other labour markets, inflationary pressures become generalized across the country. Headlines about labour shortages, and wage pressures, have become routine in Alberta, and are beginning to ripple across Canada.

It takes energy to make energy

The fossil fuel component in oil sands is bitumen. Bitumen content of the sands is about 10-12%, sand and clay is perhaps 80-85%, and the balance is water.

All the processes so far developed to separate bitumen from non-commercial components involve heat. Natural gas is overwhelmingly the energy source used for this purpose. Natural gas is also used in upgrading bitumen to synthetic crude oil.

Approximately a billion cubic feet (bcf) of gas is required every day to produce (extract and upgrade) a million barrels of oil, which is the current daily production from the oil sands and a third of what is projected by 2015. Canada produces about 17 billion cubic feet per day of natural gas, delivering all that gas into a continental market that is overheated, in which prices are at historical heights and for which no relief is forecast.

Most of the gas that would be shipped in the Mackenzie Gas Pipeline, if it is built, will end up in the oil sands. Another source of gas for the oil sands could be liquefied natural gas (LNG) imports from overseas. Kitimat LNG, Canada's first west coast LNG import facility, was recently approved by the British Columbia Environmental Assessment Office.

The only alternative to natural gas appears to be nuclear energy. It's not too far fetched. Energy Alberta Corp. already has a deal with Atomic Energy of Canada Ltd., and is proposing a project using the Candu reactor to sell steam to several oil sands producers.

Takeaway transportation pipelines

There are four groups of pipelines which are being expanded, modified or proposed related to the oil sands.

1. An ever-expanding network of pipelines that connect the growing multitude of oil sands extraction projects in northern Alberta to the main upgraders and hubs at Edmonton and Hardisty, Alberta.

2. Long distance transportation pipelines that will "takeaway" or move the oil from Canada to the west coast or to the US.

3. Within the United States itself is a network of pipelines that move oil to hubs and refineries, and which distribute oil to end-users.

4. "Diluent" pipelines. This fourth group of pipelines serves an essential function for the bituminous crude produced in the oil sands. This stuff is so viscous — imagine cold molasses — that it needs to be diluted to move through a pipeline efficiently. The diluent, typically a "condensate" byproduct of natural gas processing, is added to the oil, retrieved at the delivery end of the pipeline, and either used or recycled — piped back to Alberta.

The takeaway transportation pipelines, the second group, are the multi-billion dollar energy arteries driven by the enormous economic forces at play — forces unleashed by US demand for oil.

Canada at present has oil pipeline capacity, from just three pipelines, sufficient to transport just under 2.5 million barrels per day (MMb/d) of oil from producing areas to distribution hubs and end-user markets.

Pipeline	Capacity (b/d)
Kinder Morgan Trans Mountain	225,000
Kinder Morgan Express	280,000
Enbridge	1,933,300
Total	2,438,300

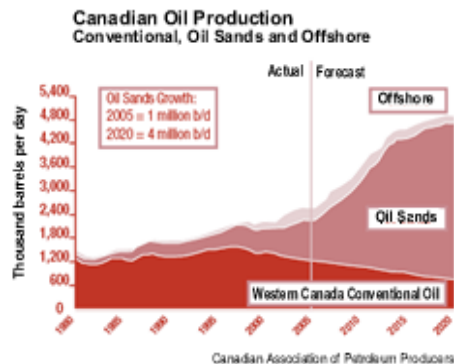
In April 2006, with oil prices soaring above \$70 and no indication of any resolution to so many unsettling and violent political events around the globe, particularly in the Persian Gulf, the Canadian Association of Petroleum Producers (CAPP) stated that "pipeline capacity must be

expanded to move the growth in oil production to markets — enough to accommodate an additional 2.5 million barrels of crude oil a day by 2020."⁶ — a doubling of capacity.

Canada produces oil from three sources.

- Offshore production from the Atlantic coast, for which no appreciable change in production is anticipated;

- Conventional production from the Western Canadian Sedimentary Basin (WCSB), from which production has been declining steadily since about 1999. The WCSB is the massive petroleum producing area that underlies much of Alberta, northeast BC, and parts of Saskatchewan and the Northwest Territory;



- Oil sands production. The chart shows clearly the growth in Canadian oil production from the oil sands, even as conventional production declines.

The consensus of agencies that analyze these things — particularly the National Energy Board, CAPP, and the EIA is that all available surplus takeaway capacity will be used up around 2007-2008. There are already frequent allocation constraints leading to apportionment. Within ten to fifteen years, pipeline capacity will need to double.

That's a lot of oil to move.

For producers, this is an emerging crisis. Their game is selling oil. Without the infrastructure necessary to move that oil to markets, they have no game.

Pipeline companies also see this crunch coming, understand the business opportunity, feel the pressure from producers, and have been introducing expansion projects and new pipelines for at least a couple of years.

\$20 billion dollars in new projects have emerged, with the capacity to transport an additional 3.5 million barrels per day of oil to markets, most of them in the United States. With forecasts that 2.5 million b/d of additional capacity will be required, and a regulator inclined to grant CPCNs like it's handing out gift coupons, it could be that many of these pipelines actually will get built. Caught up in the interplay of the US addiction to oil, NAFTA, and plain old greed, northern Alberta will be torn apart and Canada will lock itself into pushing its oil as quickly as possible out of the country.

As all that oil is produced, and ultimately used, greenhouse gas production in North America will accelerate unabated.

GATEWAY PETROLEUM EXPORT PIPELINE
 600,000 b/d; \$2.5 billion
 Edmonton to Kitimat
 Owner: Enbridge
 Markets: China, other Asia, US west coast
 Open Season: high interest, added capacity
 NEB: in pre-app phase

GATEWAY CONDENSATE PIPELINE
 \$1.7 billion; 150,000 b/d, up to 230,000 b/d
 Parallel to Gateway oil pipeline
 Source: Russia, Asia, Middle East
 Issues: First Nations, uncertain Chinese partners, offshore moratorium, rugged vulnerable terrain.
 Unlikely to proceed.

ALTEX BULLET PIPELINE
 250,000 b/d; \$3.6 billion
 Edmonton - Houston TX
 One-project Altex is unlikely to beat competing Enbridge, even with mysterious new technology that requires less diluent.

ENBRIDGE "BULLET"
 400,000 b/d; US\$3.6 billion
 Hardisty - Houston TX
 This latecomer doesn't even have a name yet, but if a bullet goes ahead, Enbridge is more likely to build it than Altex.

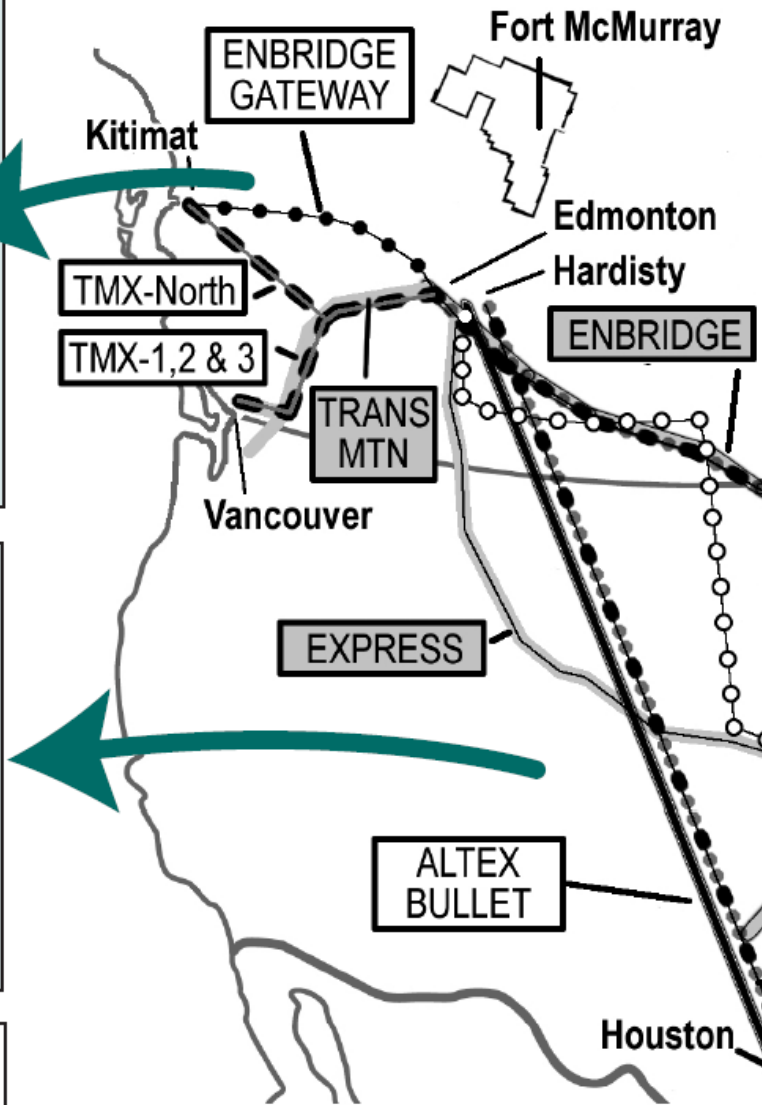
Three steps in the development of a pipeline

Pipelines are billion dollar undertakings, and a great deal of planning, preparation, and money is invested in a project by the time construction starts. Three preliminary phases or steps are common to all.

1. Introduce the idea. When a new pipeline is conceived, the company announces it by way of press releases, conferences, etc. This generates awareness of the proposal, and gives the company an early sense of viability of the idea. Ideas floated in this stage often don't make it much further.

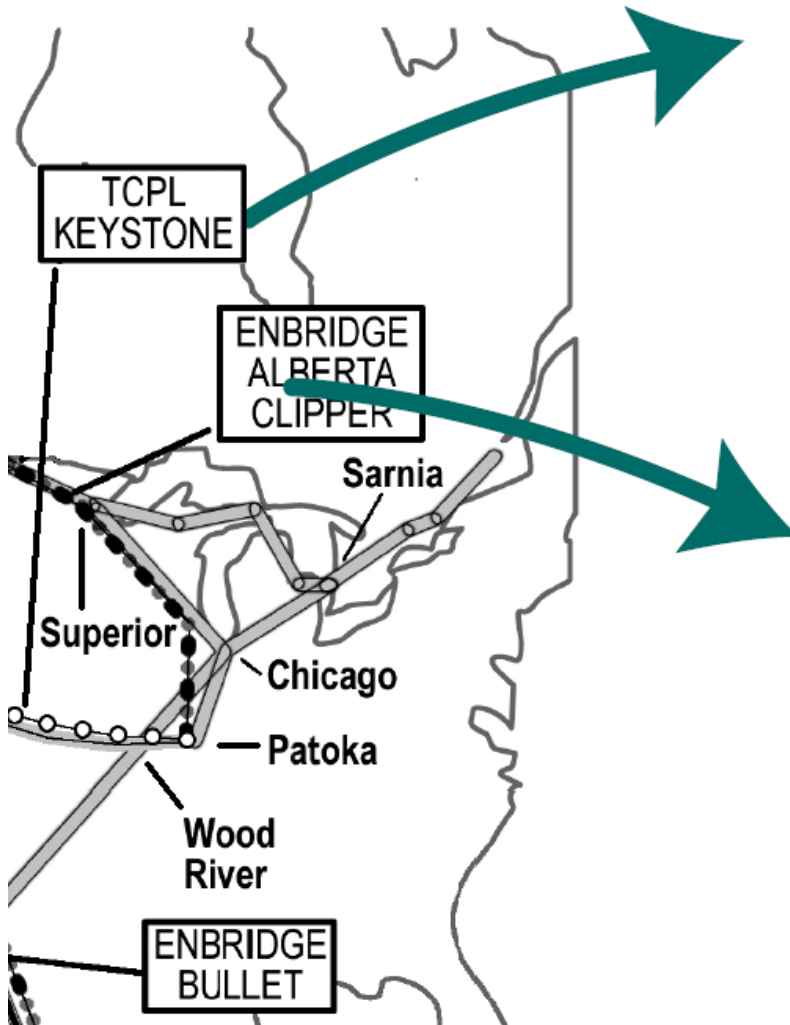
2. Open Season. A pipeline is only viable if shippers commit to use it. Open Season is a formal process to identify the capacity on the pipeline shippers will commit to.

3. Regulatory approval. Every interprovincial and international pipeline requires a Certificate of Public Convenience and Necessity (CPCN) from the National Energy Board (NEB) in Canada.



The Pipelines

Pipeline (New Capacity)	Capacity (b/d)	Cost (Can \$million)
Kinder Morgan TMX-1, 2 & 3	475,000	2,400
Kinder Morgan TMX-North	400,000	2,000
Enbridge Gateway	600,000	2,500
Enbridge Alberta Clipper (Phase 1&2)	800,000	2,600
Enbridge Bullet	400,000	4,300
TCPL Keystone	590,000	2,500
Altex Bullet	250,000	3,600
<i>Total</i>	<i>3,515,000</i>	<i>19,900</i>



KEYSTONE PIPELINE
 435,000 b/d, expandable to 590,000 b/d
 US\$2.1 billion
 Hardisty, AB to Patoka, IL
 Owner: Trans Canada Pipeline (TCPL)
 Open Season: 80% of capacity secured
 Communications Energy and Paperworkers Union says exporting unrefined bitumen is exporting 18,000 jobs
 Almost certain to proceed. Strong industry support will overcome challenges.

ALBERTA CLIPPER
 400,000 b/d
 US\$1.8 billion
 Edmonton - Superior WI
 Owner: Enbridge
 Phase 2 adds 400,000 b/d for \$380 million
 Clipper by itself is incomplete without Enbridge's expansion projects within the US
 CEO says won't proceed if Keystone goes ahead; only the Open Season knows for sure

View reading list, sources and resources at www.watershedsentinel.ca or www.sqwalk.com

TRANS MOUNTAIN EXPANSION PROJECTS
 Trans Mountain system serves BC & WA
 Edmonton to Burnaby & NW Washington
 Owner: Kinder Morgan
 Current capacity: 225,000 b/d
 TMX-1
 Adds 75,000 b/d ; \$595 million
 Open Season received "strong support"
 NEB approval expected late 2006
 TMX-1,2,3 high likelihood of completion
 TMX-2
 Adds 100,000 b/d; \$900 million
 TMX-3
 Add 300,000 b/d; \$900 million
 TMX-North
 New 400,000 b/d; \$2 billion
 Valemont-Kitimat. Same issues as Gateway

NAFTA - Out of Proportion

Article 605(a) of the North American Free Trade Agreement (NAFTA) states that a government of a party to the agreement (Canada, US, Mexico) cannot change the proportion of the energy it exports to another party. Consequently, Article 605 is often referred to as the "proportionality" provision in NAFTA.

In agreeing to 605, Canada signed away the country's energy autonomy, and tied the hands of any future government that might want to try to regain a measure of national control of Canada's energy industry. Mexico was smarter than that, and did not agree to Article 605.

In the last five years, Canada has exported about 65% of the oil it produces to the US. Virtually all of the expected increase in production — a near doubling of output, and all of it from the oil sands — is likely to be exported to the US. As a result, that 65% export figure will rise significantly. And it won't be reversible by government policy.

This increase in US export proportion over the next ten years could be mitigated by reducing the amount of oil Canada imports for the Atlantic provinces, Quebec and Ontario or by exporting to other countries. Enbridge's Gateway, one of the proposed pipelines, intends to do just that, selling to China and other Asian markets.

The pipeline contenders

Pipeline	Capacity b/d	Cost CAD\$million
New Capacity		
Kinder Morgan TMX-1, 2&3	475,000	2,400
Kinder Morgan TMX-North	400,000	2,000
Enbridge Gateway	600,000	2,500
Enbridge Alberta Clipper (1&2)	800,000	2,600
Enbridge Bullet	400,000	4,300
TCPL Keystone	590,000	2,500
Altex Bullet	250,000	3,600
Total	3,515,000	19,900

KINDER MORGAN INC.

Kinder Morgan pipelines transport about 20% of the oil produced in western Canada through two pipeline systems, Express and Trans Mountain. Houston-based Kinder Morgan's interest in these pipelines came with its acquisition in 2005 of Terasen Inc.

A deliberately obscure legislative change in 2003 removed barriers to share acquisition by non-British Columbians, and the company that was once BC Gas, later Terasen, was set up for takeover by Kinder Morgan in 2005.

Many British Columbian were enraged, but efforts to obstruct the takeover were futile.

In August 2006, Kinder Morgan itself, a publicly traded company, accepted a buyout offer worth US \$22 billion from its founders, Richard Kinder and William Morgan and a syndicate of investment firms including Investors Trust, AIG, and the Carlyle Group. They intend to take the company private, the corporate equivalent of a submarine diving underwater, as far as disclosure and accountability goes.

Revenues for Kinder Morgan were US \$1.6 billion in 2005; after tax profits were \$554 million.

The Express Pipeline system is actually two connected pipelines - the Express Pipeline from Hardisty, Alberta to Casper, Wyoming and the Platte Pipeline from Casper to Wood River, Illinois. Its capacity is 280,000 MMb/d of oil, after completion of a 110,000 MMb/d expansion project in early 2005.

No further expansion plans have been announced on the Express system.

The Express system is one-third owned by Kinder Morgan, with Ontario teacher and municipal employees pension funds owning the remaining two-thirds. Kinder Morgan operates the system.

The Trans Mountain system runs from Edmonton, through Jasper National Park then south through British Columbia, dropping alongside the Coquihalla River to

Hope and then along the Fraser River to Burnaby. Capacity of the Trans Mountain system is 225,000 MMb/d.

60-70 percent of the oil in the Trans Mountain system ends up in Canada; the rest, 30-40 percent, goes to refineries in northwest Washington State. Of the Canadian portion, as much as 10 percent is shipped from the Westridge Marine Terminal — one or two ships per month, mostly for deliveries to refineries along the Pacific coast of the U.S. but occasionally elsewhere around the Pacific Rim.

The expansion projects on the Trans Mountain system are to be phased in over time, as market interest wavers.

Trans-Mountain Expansion Projects

The Trans Mountain system was built in the 1950s and transports about 225,000 b/d, 1150 km from Edmonton to Burnaby. The Trans-Mountain Expansion (TMX) project will increase its capacity in three stages to 700,000 b/d.

TMX-1

Pump upgrades

\$230 million

Add 35,000 b/d to 260,000 b/d

Proposed completion 2007

Pump additions and upgrades

Open Season: see below

NEB: approval November 2005

Anchor Loop

\$365 million

Add 40,000 b/d to 300,000 b/d

Proposed completion 2008

Looping 158 km through Jasper and Mt. Robson Parks

Open Season: "strong support" received for both parts of TMX-1

NEB: hearing completed August 2006, awaiting decision

TMX-2

\$900 million

Add 100,000 b/d to 400,000 b/d

Proposed completion 2010

looping, pumps, tanks, 495 km in two sections

(Edmonton AB to Edson, Valemont BC to Kamloops)

Open season: not yet

NEB: not yet

TMX-3

\$900 million

Add 300,000 b/d to 700,000 b/d

Proposed completion 2011

Loop from Kamloops BC to coast

TMX-North

\$2 billion

400,000 b/d

Valemont BC to Kitimat BC

Will TMX get built? TMX-1 & 2 – almost certainly. TMX-3, likely. TMX-North – speculative, facing the same obstacles as Gateway (q.v.)

The Trans Mountain expansion projects have been introduced without fanfare, have attracted relatively little interest from intervenors or the media. Given that the proposed work is largely in existing right-of-way, on a pipeline that has been operating for fifty years, the impacts of the projects are likely to be of considerably less magnitude than if the pipeline were entirely new, on new right-of-way.

Relationships with First Nations are established, though not necessarily good, and the expansion project represents, in most instances, marginal additional infringements on Aboriginal Rights and Title.

That said, in the Anchor Loop review by the NEB, a motion was filed by the Simpcw First Nation to postpone the hearing, days before the hearing was to begin in August. The hearing completed three days later. The Board dismissed the motion two weeks after that.

It is likely that the TMX-2 expansion project will advance to an NEB application, although at press time results were still not released from the Open Season—which had already had its deadline extended a month to late July.

A question with the Trans Mountain pipeline is, where will the oil go?

Some will be absorbed in the growing Lower Mainland. Most, however, will go into the US, particularly to Washington State refineries such as BP at Cherry Point or ConocoPhillips in Ferndale. Those currently take about 15% of their feedstock from the Trans Mountain system. (Which moves through the Olympic pipeline recently purchased by Enbridge.) The rest is brought in through the Strait of Juan de Fuca by tanker.

The refineries are crying for more crude oil, but a 1977 amendment to the Marine Mammal Protection Act decreed that only the amount of crude oil needed for Washington's consumption could pass across refineries' loading docks.

In March, a spokesperson for the BP refinery stated that the company was looking into a billion dollar retrofit of the facility to handle Alberta bitumen.

TMX-North would be a new pipeline, facing all the same obstacles that Gateway is confronted with. Kinder Morgan will likely hold off on the northern project until the fortunes or mis-fortunes of Gateway are fully revealed, and until the market indicators are more persua-

sive. That is, it is not much more than a planning option at this time.

ENBRIDGE INC.

Enbridge transports 80% of the oil produced in western Canada, nearly 2 million barrels a day, through its main system from Alberta to the US mid-west and Ontario.

The system's route is from Hardisty, Alberta to Superior, Wisconsin at the west end of Lake Superior. From Superior, some oil is transported back into Canada at Sarnia, Ontario, routed across Wisconsin and Michigan. The rest is delivered south into the US Midwest to major hubs and refineries in Chicago and Patoka and Wood River, Illinois, just across the Mississippi River from St. Louis, Missouri.

Enbridge also owns an extensive set of pipelines in the United States and elsewhere, as well as in Canada where its head office is located.

The company's revenues in 2005 were CAD \$8.4 billion. Its after-tax profits were \$563 million.

Enbridge is proposing three new pipeline systems to capture a significant share of increased shipping of oil sands product.

Gateway Pipelines Project

The Gateway proposal is actually two pipelines sharing a common right-of-way. One will move oil sands bitumen from east to west, the other will transport imported diluent from west to east.

Gateway Petroleum Export Pipeline

\$2.5 billion

36 inch

600,000 b/d

1,200 km

Proposed completion 2011

Edmonton AB to Kitimat BC

Markets: China & other Asia, westcoast US

Open Season: high degree of interest

NEB: pre-app, Nov 2005

Gateway Condensate Pipeline

\$1.7 billion

16 (could be 20) inch

150,000 (could be 230,000) bpd

1,200 km

Kitimat BC to Edmonton AB

Source: gas producing areas around the world, eg. Russia, Asia, Middle East

Open Season: high degree of interest

NEB: pre-app, Nov 2005

Will Gateway get built? It's getting tougher every step of the way, unless everything is up for negotiation.

Gateway filed preliminary applications for both the oil and condensate pipelines, and a marine terminal in Kitimat, with the NEB in November 2005. Since then, the company has completed Open Seasons on both pipelines, confirmed with the NEB that the oil pipeline will be increased from 30 inch to 36 inch diameter (400,000 b/d to 600,000 b/d capacity), and indicated that it may increase the condensate pipeline from 16 inch to 20 inch diameter.

A formal application to the NEB is expected by the end of 2006.

The project review will be by Joint Review Panel, as was the GSX Pipeline to Vancouver Island and as is the Mackenzie Gas Pipeline.

Gateway faces greater obstacles than any of the other major oil sands pipelines. That is, there are more reasons not to build Gateway, than any of the others. Its odds of receiving regulatory approval, however, are reasonably good, given the NEB penchant for ducking hard issues like those concerning First Nations and for rubber-stamping projects.

Shipping costs on Gateway to markets are expected to be only slightly more than the continental routes into the US. That is, moving oil 1200 km by pipeline from Edmonton to Kitimat, and 8300 km from Kitimat to Shanghai, costs about 25 cents more than moving oil the 2500 km from Edmonton to Patoka, Illinois—and less than the shipping cost from Alberta to Houston, the route of the two “bullet” proposals.

But the odds of Gateway actually being built are less than certain for at least four reasons:

- **Ecosystems and terrain** If built, Gateway will be new right-of-way through extremely rugged terrain, with many rivers and watersheds potentially put at risk by project construction or a future spill. First Nations and communities along the route naturally are gravely concerned about the project. The environmental impact assessments of the project route will be hotly debated, protracted, and the additional costs to address and mitigate environmental risks will inflate the cost of the pipeline.
- **Oil tanker traffic** The Gateway oil pipeline would result in three or more large oil tankers per week navigating the narrow route down Douglas Channel from Kitimat, across Hecate Strait and out Dixon En-

trance to the Pacific Ocean. In conjunction with additional tankers importing condensate and liquefied natural gas (LNG), the risks to the ocean and its shoreline will skyrocket, setting up a “perfect storm” of conditions for significant losses. An Exxon Valdes-scale disaster is conceivable.

A coalition of environmental groups has advised the NEB that the pipeline review cannot proceed without resolution of the moratorium issue. The Haida Nation also insist that the effects of tanker traffic be addressed to its satisfaction.

Enbridge merely states that there is “no restriction on the movement of tankers into and out of Canadian ports.”⁷ It's a debate that could end up in court, and take many tides to resolve.[See Moratorium sidebar]

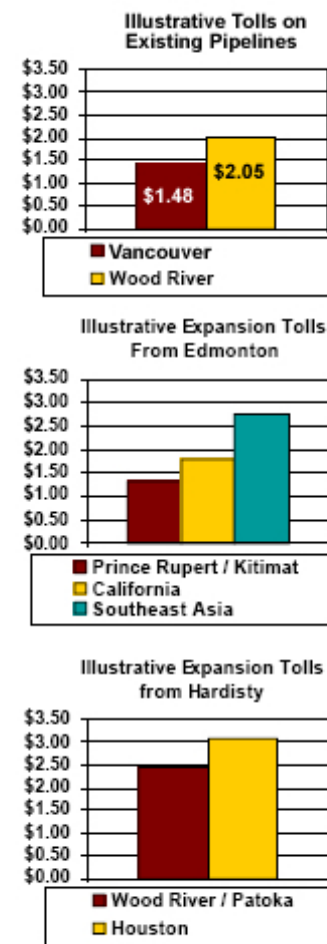
- **First Nations** Gateway is routed in its eastern part through Treaty 8 territory, and in the western part through First Nations territories that have never been ceded by treaty. The Haida Nation will be joined by other First Nations, who can collectively put their foot down harder on this project than on any that has been proposed in British Columbia.

The Carrier-Sekani Tribal Council has informed the NEB that it and other First Nations expect to be part of any discussion with the federal government and the NEB concerning the project review. First Nations are proposing a review process of their own which they will insist be reconciled with the NEB process. The Haida Nation insist that the effects of tanker traffic be addressed to their satisfaction.

Aboriginal legal issues may hamstring the Gateway projects, and the story will unfold in a complex mix of aboriginal principles, resolve and the determination of Enbridge to see this project through.

The NEB stands, or hides, behind its policy that everybody in its quasi-court gets the same treatment, as articulated in its March 2006 “*Consideration of Aboriginal Concerns in National Energy Board Decisions*”⁸

Market Enbridge claims that the market for the oil shipped in the Gateway pipeline will be mainly destined for Chinese and Asian markets. In April 2005 Enbridge announced a memorandum of understanding with PetroChina International Company Ltd, which will eventually secure approximately half the capacity on the Gateway project for PetroChina. But in August this year, the company revealed difficulties in getting firm contracts with the Chinese partners and the project would be delayed



adapted from Canadian Association of Petroleum Producers

until 2011. Sometimes, difficult negotiations end up with no agreement.

Enbridge Alberta Clipper

Phase 1
 US\$1.8 billion
 36 inch
 400,000 b/d
 1,700 km
 Edmonton AB to Superior WI
 In service 2009-2010
 Open Season: not yet
 NEB: Q4 2006

Phase 2
 400,000 b/d
 \$380 million

Will it move oil? Only the Open Season knows...

The Alberta Clipper was announced by Enbridge after Gateway, perhaps once Enbridge realized the uphill struggles it would face with Gateway, and the ground it was losing as Trans Canada's Keystone gained momentum. And indeed, Enbridge CEO Pat Daniel indicated in an August discussion with the business media that if Keystone were to proceed, the Clipper may not. Enbridge also stated that its decision would be driven by a high degree of commitment from shippers.

The Clipper by itself is an incomplete system, ending as it does at Superior, Wisconsin. Other Enbridge expansion projects within the US complete the Clipper. The main two are the Southern Access and Southern Access Extension, running from Superior to Patoka, IL, and further into the US south and eastern states.

Enbridge "Bullet"

US\$3.6 billion
 36 inch
 400,000 b/d
 Hardisty AB to Houston TX
 Open Season: no
 NEB: no

Will it move oil? Anything is possible, but...

The "bullet" pipeline was announced by Enbridge CEO Pat Daniel in mid-July 2006. By press time, a company spokesperson explained that the "concept" still had no name.

Much as the Alberta Clipper may have been a competitive response to the TCPL Keystone project, the Enbridge bullet may be intended to undermine, or seize, whatever interest might be building in the Altex project to move oil sands product to the Gulf Coast.

TRANS-CANADA PIPELINE (TCPL)

Trans Canada owns an extensive network of natural gas pipelines, but does not, as yet, have any oil pipelines in Canada. The company's head office is in Calgary. Its 2005 revenues were CDN \$6.1 billion and its after tax net was \$1.2 billion.

Keystone Pipeline

US\$2.1 billion
 435,000 b/d, expandable to 590,000 b/d
 2960 km (2100 km new, 860 converted from gas)
 Hardisty AB to Patoka IL
 In service 2009
 Open Season: commitments for 80% of initial capacity
 NEB: Regulatory filing prelim June 2006 (NEB) and application expected in late 2006

Will it move oil? almost certainly.

Keystone is advancing through two separate regulatory applications. The first, underway now, is to transfer the existing 860 km of natural gas pipeline from TCPL to Keystone, thereby discontinuing its use as a natural gas pipeline. The second, for which a preliminary application has been filed, is for the construction of the oil pipeline.

In January 2006, Keystone secured firm, long-term commitments from shippers for transportation of 340,000 barrels of crude oil per day, 80% of the proposed capacity.

In the transfer application, the Communications Energy and Paperworkers Union of Canada (CEP) filed a notice of motion to have the transfer hearing and oil pipeline hearing held concurrently. The primary concern of CEP, apart from the apparent redundancy, inefficiency and cost of two related processes held at separate times, appears to be with the potential for an increasing proportion of Canadian oil production to be exported, the "proportionality" risks Canada faces from NAFTA [see *NAFTA sidebar*].

In August, the Board denied the motion. The hearing is scheduled for October 23.

ALTEX ENERGY

Altex is a private company headed by former executives responsible for building the \$5-billion Alliance natural gas pipeline to Chicago. The company has no apparent history, projects or revenues.

Altex Bullet Pipeline

\$3.6 billion
 250,000 b/d
 Edmonton – Houston TX

Will it move oil? Pretty speculative

Altex claims the Bullet Pipeline system will use new technology that requires less diluent to lower the viscosity of the bitumen. So little information is available about the company, its pipeline and its technological magic, that it is not possible to evaluate. Does Altex have access to technology that Enbridge, Kinder Morgan or Trans Canada do not, or may have rejected?

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BC's Offshore Moratorium: Unbelieve it!

Senior governments and corporations like Enbridge are working a strategy to erode the public understanding and consensus that a moratorium exists. That's a change from a couple of years ago when the Royal Society and the Priddle Commission were tasked with terms of reference from a government that shared the understanding that a moratorium did, in fact, exist.

We are witnessing a deliberate campaign to change our minds, and to convince us of something other than what we have believed, up to now, is true. If the strategy is effective, the public will begin to unbelieve the moratorium, it will become as insubstantial as melting frost on a winter window, and a critical precedent could be established.

The game is at its most intense focus at the National Energy Board Gateway pipeline proceeding. In April, Pembina Institute and a number of environmental organizations wrote to the NEB, advising that the pipeline review cannot proceed without resolution of the moratorium issue. Gateway responded that "there is in fact no restriction on the movement of tankers into and out of Canadian ports."⁷

Sources

1. **Standard measure for oil volumes.** The barrel (bbl) is the conventional industry measure for oil. It's what we're using in this article. Many of Canada's government publications use cubic metres (m³; 1m³ = 6.292 bbl). The US frequently measures oil in gallons (gal; 1 bbl = 42 gal). Oil is also measured in terms of a standard heat or energy output, the British Thermal Unit (Btu; 1 bbl = 5,800,000 Btus). We are also using the industry convention for pipeline, production and consumption figures of million barrels per day (MMb/d).

2. Saudi Arabia's reserve estimates are provided by Saudi Aramco officials and cannot be evaluated by independent analysts. Matthew Simmons, a prominent US petroleum analyst, has been suspicious of the Saudi figures. If he is correct, Saudi Arabia's contribution in the future to global oil supplies could drop precipitously, and Peak Oil may be closer than we think.

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8. Consideration of Aboriginal Concerns in National Energy Board Decisions"

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Suggested Reading

Two starting points for information about oil and gas in Canada are the Publications pages of the National Energy Board (NEB) and the Canadian Association of Petroleum Producers (CAPP).

www.neb-one.gc.ca
www.capp.ca

For energy information with a US and global scope (including much material specific to Canada) the US Energy Information Administration (EIA) is a good place to begin a search.

www.eia.doe.gov/

The main documents from the NEB, CAPP and EIA used in putting together this essay are listed here.

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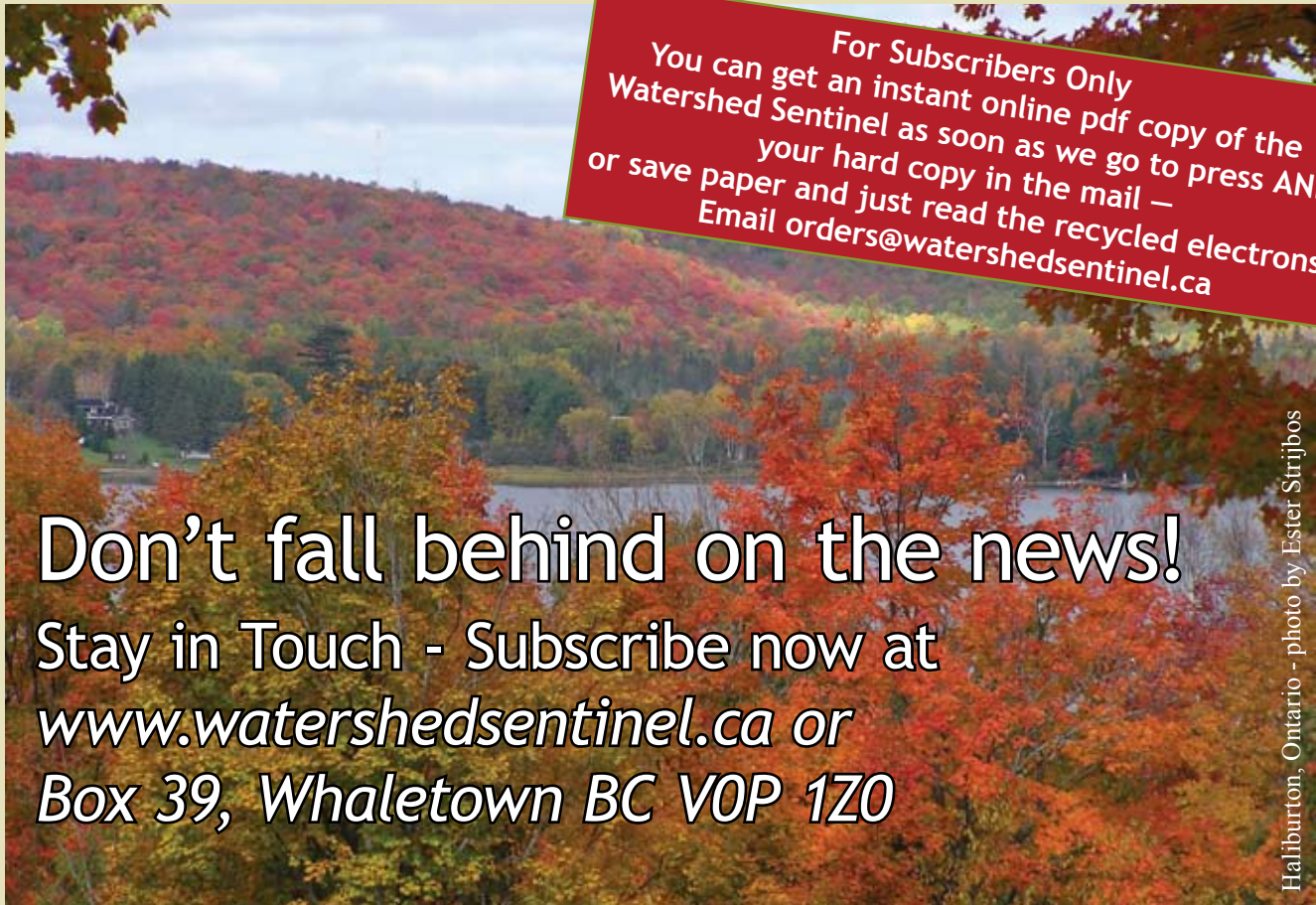
TCPL Keystone transfer application (MH-1-2006)

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TCPL Keystone preliminary submission

tinyurl.com/pjdrv

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Haliburton, Ontario - photo by Ester Strijbos

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