

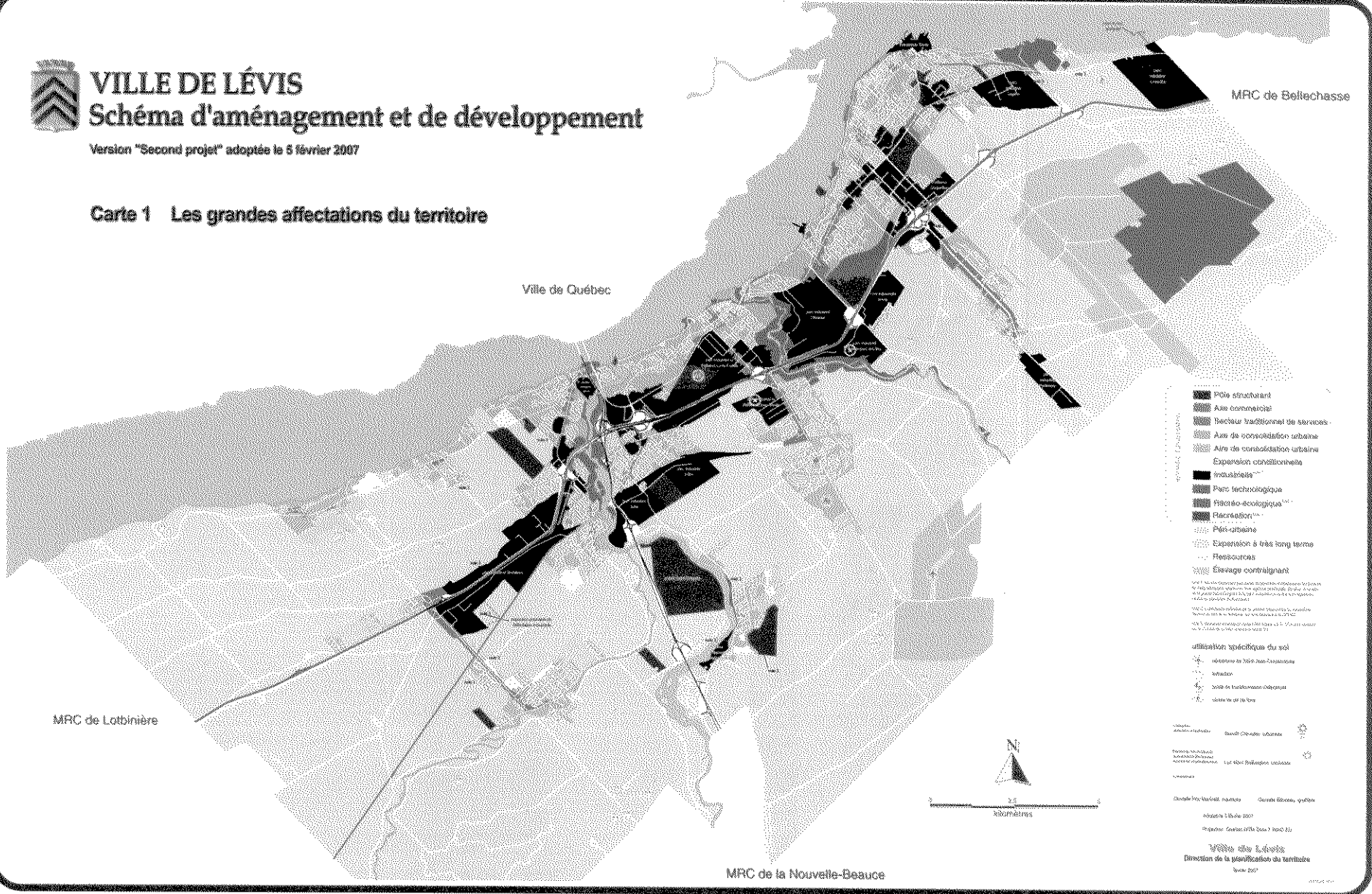


VILLE DE LÉVIS

Schéma d'aménagement et de développement

Version "Second projet" adoptée le 5 février 2007

Carte 1 Les grandes affectations du territoire



- POLE STRUCTURANT**
- Axe commercial
 - Becteur traditionnel de services
 - Aire de consolidation urbaine
 - Aire de consolidation urbaine
 - Expansion existentielle
 - Industrielle
 - Parc technologique
 - Parc éco-écologique
 - Recreation
 - Plein-air
 - Expansion à très long terme
 - Reservoirs
 - Événementiel
- UTILISATION SPECIFIQUE DU SOL**
- habitation de haut standing
 - habitation
 - zone de habitation collective
 - zone de lotissement

MRC de Bellechasse
 MRC de Lotbinière
 MRC de la Nouvelle-Beauce
 Ville de Québec
 Direction de la planification du territoire
 2007

Alexander's Gas & Oil Connections

volume 7, issue #11 - Wednesday, May 29, 2002

Americans happy to cut dependence on Middle East energy

08-05-02 Americans do not regard Canadian energy supplies as "foreign" and they would be willing to pay more for Canadian gasoline if it meant reducing dependence on the Middle East, a Ipsos-Reid poll has found. The results are being released in Washington as part of a presentation by the Canadian Association of Petroleum Producers.

"What we see clearly is that Americans look at Canadians as a potentially friendly supply of energy," Tim Moro, vice-president of the energy division of Ipsos-Reid, said. "Elsewhere, they look in the world they see a reflection of something different and they are very concerned about that right now. They are looking for safety, for security and Canadians look an awful lot like them."

According to the poll, **85 % of Americans say reducing energy dependence on foreign suppliers is important to national security** -- but 71 % said they do not view Canadian supplies as foreign. Most Americans are also concerned the US doesn't have enough energy resources and they could be personally affected by shortages of gasoline, electricity and natural gas. The results highlight that American attitudes toward Canada on energy issues are different from general American views toward this country.

According to another, broader public opinion survey by Ipsos-Read also released, Canadians embrace their southern neighbour as their closest friend and trading partner, Americans dismiss Canada as almost irrelevant in economics and foreign policy, while underestimating its importance as a trading partner.

Mr. Moro said **Canadians can turn those American attitudes into an advantage in the energy business. "Americans simply assume that Canadians are really no different than people in Oregon.** From a business perspective, for energy, that becomes extremely positive, because they see us as people they can do business with. They see us as people they can trust, they see us as people just like them," he said.

Ironically, Canadians are not as eager to co-operate with Americans on energy issues. In fact, 80 % of Canadians polled said they are concerned about foreign ownership of Canadian energy resources, while **seven-in-10 Canadians disagree with the statement, "Canadians have nothing to worry about if we supply to the United States."**

The energy survey, based on interviews late last fall with 2,001 Americans and 1,001 Canadians, is accurate within 2.2 % for the US results, and 3.1 % for the Canadian results, 19 times out of 20. CAPP will highlight the findings in talks with politicians and government officials in Washington over the next two days to raise awareness of energy opportunities in Canada.

Pierre Alvarez, president of CAPP, said those opportunities remain poorly understood in the US. The energy survey is being released against a backdrop of simmering tension on the energy front between Canada and the US over proposed subsidies to support development of a large natural gas pipeline from Alaska to feed US energy consumers that could undermine a rival project in Canada's Mackenzie Delta and disrupt natural gas markets. The proposal is part of a sweeping US energy bill aimed at raising North American energy supplies to reduce dependence on Middle East oil.

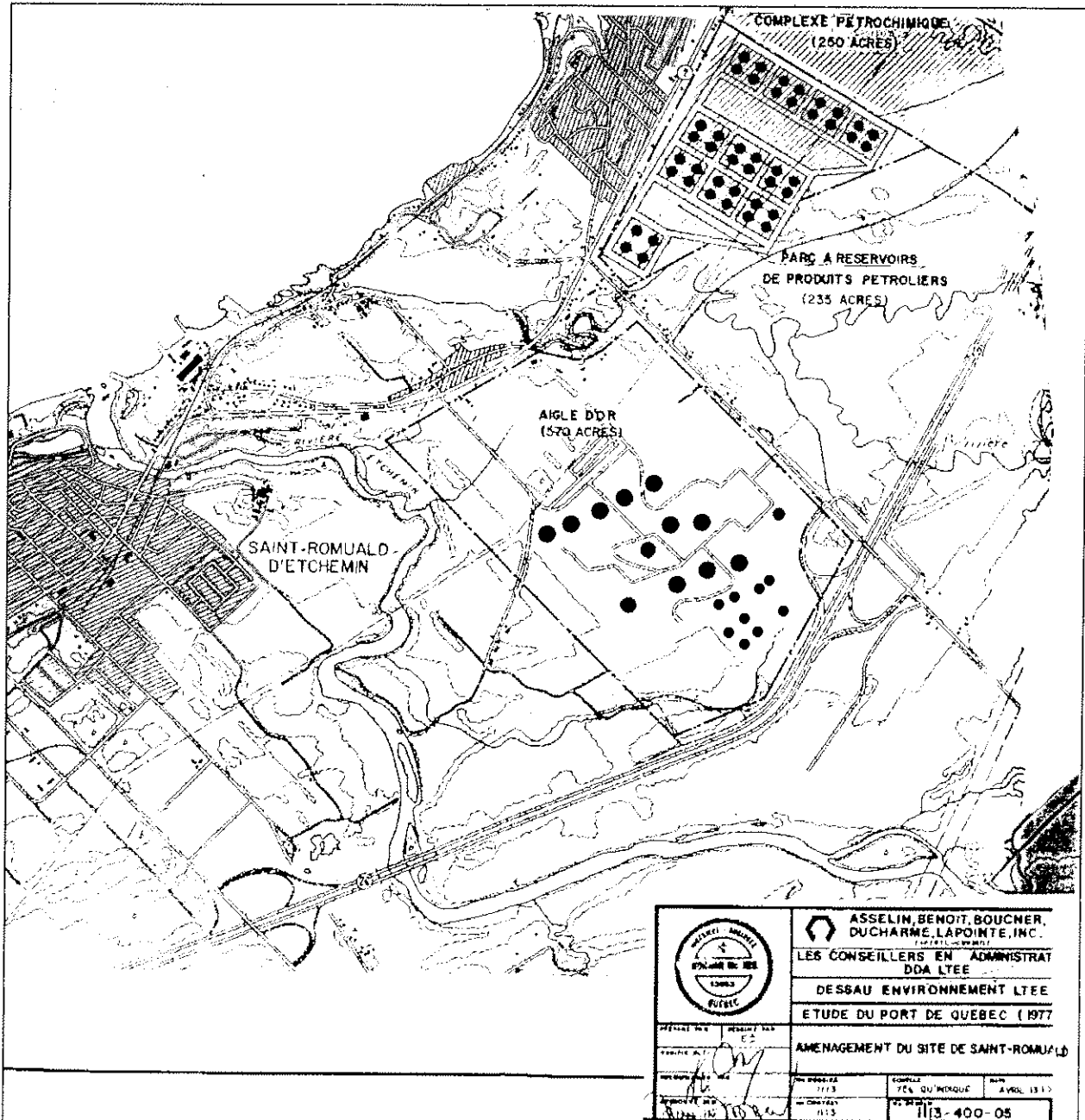
"One of the things we hope to get in Washington is a better understanding of the thinking behind the measures, what the likelihood of it proceeding through the Congressional system is, where the Administration fits on some of these issues," Mr. Alvarez said.

Meanwhile, Harry Longwell, ExxonMobil executive vice-president, said he favours a proposed Mackenzie Valley pipeline to carry natural gas over one along the Alaska Highway. "That's the one I'm more optimistic about," Mr. Longwell said. "We're moving forward. We'll probably start some advanced engineering work in a year or so, assuming we can get co-operation and positive signals from the folks along the right of way."

ExxonMobil has gas properties in Alaska and Canada's Mackenzie River delta. The Mackenzie Delta pipeline would be owned by ExxonMobil, Conoco and Shell Group. Canadian natives would hold a one-third stake in the line.

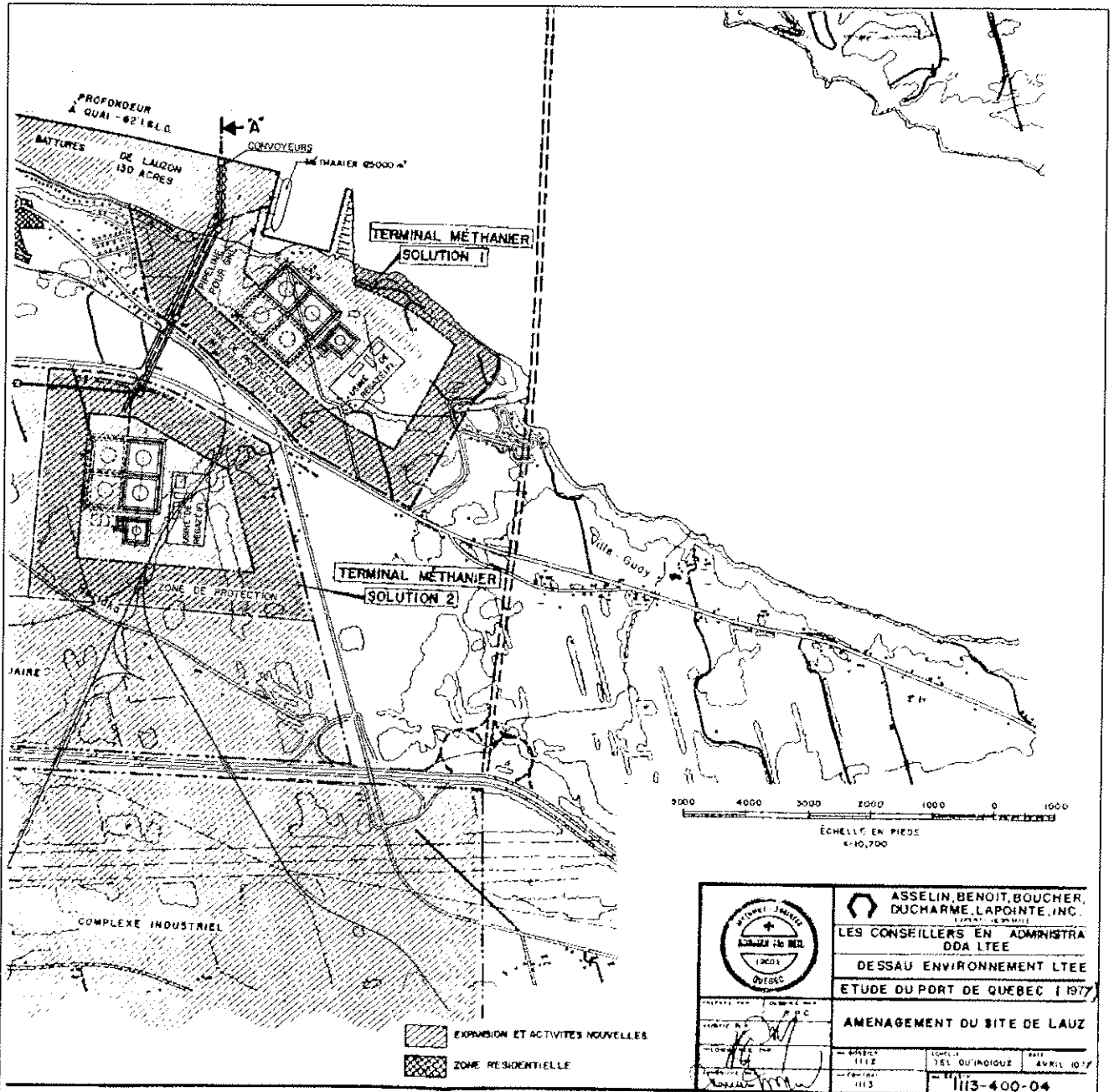
Source: National Post Online

Le plan d'aménagement du pôle St-Romuald du comité conjoint Canada-Québec pour le Port de Québec, style années 70 : une vision extrême, fruit de l'imaginaire du «développement» et de l'industrialisation.



*Comité Interministériel portuaire
 Etude du Port de Québec (1977)
 Annexe C*

Sites sélectionnés pour le projet de Trans-Canada Pipelines en 1979, avec un lien direct pour la Rive Nord en tunnel



Ministère Industrie & Commerce
 (avec OPDQ)
 Comité interministériel portuaire

ON ne peut mettre en doute le besoin accru de gaz naturel disait le *Boston Globe* en 2004. Cet argument de vente est remis aujourd'hui en question. Il soulignait la nécessité de mettre sur pied un plan de développement de ces installations, mais la FERC lui répond que le temps presse et qu'il faut aller au plus pressé, au premier arrivé, premier servi en fait. Deux ans et demi après cet éditorial, où en est rendue la Nouvelle-Angleterre dans son «développement» méthanier?

Boston GLOBE EDITORIAL

A regional plan for LNG

September 9, 2004

FROM PROVIDENCE to a site in Maine close to the Canadian border, New England is being eyed by at least five developers of onshore liquefied natural gas terminals in addition to the DISTRIGAS facility in Everett. Also, a Texas firm has a plan for an offshore LNG terminal 10 miles from Gloucester. **There is no question that New England needs new sources of natural gas to heat its homes and generate its electricity. But what it needs most of all is a regional plan to ensure that companies build the right number of terminals in the right places**

Unfortunately, there is no law or regulation to require that terminals be located in places that make sense for the region, not just for the companies building them. In recent testimony before Congress, Philip Warburg of the Conservation Law Foundation said the federal agencies regulating such facilities could coordinate their activities and take a regional approach under existing law. But US Representative John Tierney of Salem sees the need for a law or regulation that would require a regional overview.

The chairman of the Federal Energy Regulatory Commission, Pat Wood, recently cited the importance of regional planning in a letter to Rhode Island Senator Jack Reed but said **timely development of new facilities required that the commission continue processing the individual proposals before it.** His statement is a strong argument for Tierney and the rest of the New England delegation to act quickly in mandating a regional approach.

One risk of not having such a plan is that **more terminals might be built than are really needed. This would expose more communities to the threat**

of terrorism and saddle government with extra security costs.

Another risk of not having a regional plan for LNG terminals is that they would be located in low-income areas desperate for any economic activity, such as the land in northern Maine owned by the Passamaquoddy tribe and not in more-central locations that would better serve the bulk of the population.

The region needs more natural gas in the form of LNG because it has hitched its fate to this relatively clean energy source at the same time that US and Canadian supplies of it have begun to tail off. **For years, Distrigas has imported LNG and stored it in tanks for use in the winter when demand peaks. The proposed onshore terminals would add to this capacity.** At the offshore terminal, LNG would be heated back to vapor and pumped into the region's pipeline system for immediate use.

Unless the region gets serious very quickly about increased energy efficiency and greater use of renewable sources like wind power, it is likely to need both more onshore terminals and at least one offshore. Granting them regulatory approval on a first-come, first-served basis would be a mistake.

© Copyright 2004 *The New York Times Company*

Canada needs to protect its energy supplies: report

Last Updated: Tuesday, March 7, 2006

CBC News

Three independent Canadian research institutes want the federal government to develop a new energy policy to better protect the needs of Canadians.

A report released Tuesday by the Parkland Institute along with the Polaris Institute and the Canadian Centre for Policy Alternatives suggests **Canada's future energy supply is in jeopardy because of how much oil and natural gas is sent to the United States.**

As part of the North American Free Trade Agreement, Canada signed a proportional sharing agreement that prevents it from withholding energy supplies from the U.S., even if Canada is in the midst of an energy crisis.

Gordon Laxer, director of the Parkland Institute in Edmonton, says the policy needs to be revisited.

"Our NAFTA partners both have policies to look after their own," Laxer said.

"Who's looking after Canada's needs? Of the three NAFTA countries, who are the ones most likely to freeze in the dark?"

Premier Ralph Klein is unsure whether revisiting that agreement would be a good move.

"I have no idea – for every upside there's a downside," he said.

Laxer says conventional oil and gas supplies are dwindling and Canada needs an energy policy that protects the country's needs first.

However, the idea of a nationally created energy policy is a hard sell in Alberta.

Many argue the National Energy Program of the 1980s nearly drove the province's economy into the ground. The program kept the price of oil in Canada low to protect the rest of the country from paying inflating world prices.

While the premier says he's interested what the report has to say, he's certainly not interested in another National Energy Program.

Canadian petroleum producers downplay report

Meanwhile, an executive with the Canadian Association of Petroleum Producers doesn't believe Alberta's oil supply is at risk due to the United States stockpiling reserves.

Greg Stringham, vice-president of CAPP, dismisses the report saying the anxiety is unfounded. He says even the most conservative estimate puts 175 billion barrels of oil in Alberta's oilsands. Enough, he says, to supply Canada for more than 400 years.

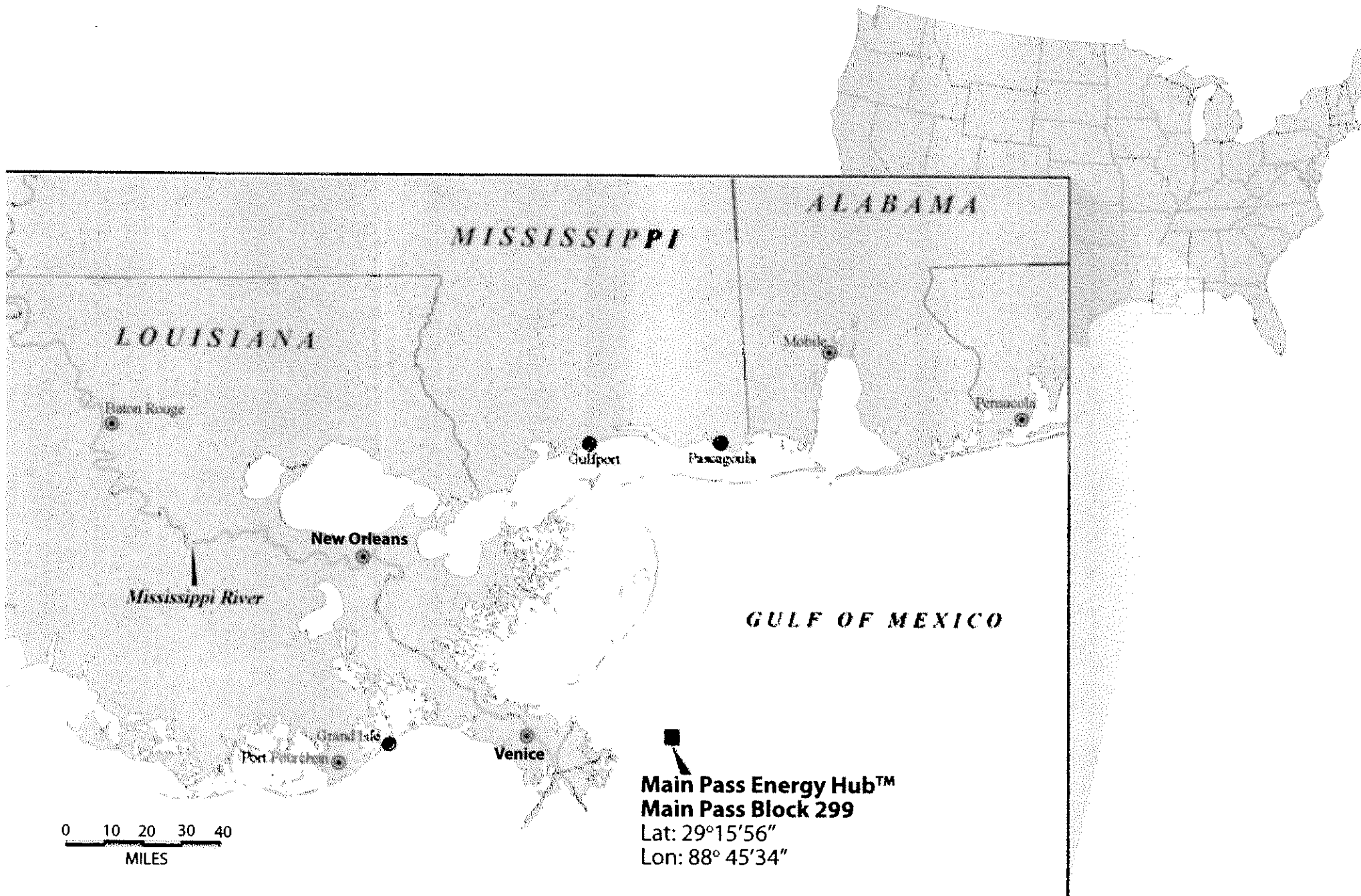
"The NAFTA provisions really are secondary," Stringham told CBC News. "The biggest part of NAFTA ... really relies on the market itself. The market is the best determiner, the best allocator of how that goes.

"With the Canadians being the closest to the resource, and not having to pay the transportation costs, they are always – in a market sense – going to have first access to that oil and gas resource."

The report also pointed to post-Sept. 11 security concerns in the U.S. as one of

the reasons that Americans are stockpiling resources.

Copyright © CBC 2006



Le «charbon propre» peut-il remplacer à son tour le gaz naturel propre ? Les avancées technologiques en assainissement des rejets rendent les intentions des gazières encore plus hypothétiques sur la question de la substitution charbon-gaz.

Steag AG Plans to Install a 750-Megawatt Coal-Fired Unit

JOHANNESBURG, SOUTH AFRICA--December 27, 2006--Researched by Industrial Info Resources (Sugar Land, Texas). Germany's fifth largest utility company, Steag AG (Essen, Germany) is planning to construct a 750-megawatt coal-fired power plant unit addition at one of its existing power stations located in the city of Herne in the state of North Rhine-Westphalia in Germany's northeast region. The \$1.052 billion coal-fired power project will be the fifth unit at this site when complete. The site currently has a total electrical output of 950 megawatts. The project recently cleared a major hurdle when the local Arnsberg Regional Administration, which happens to house the Herne power plant within its municipality, accepted the application for the outline building permission for the construction and operation of the power project. In the months of October through November of 2006, **Steag AG sent out a public notice through the local Arnsberg Gazette and regional newspapers addressed to all interested parties and the local public to examine and inspect the power project application.** Steag AG will also stage another public hearing in mid-January of 2007 to address any and all lodging objections and help to answer all unanswered questions pertaining to the project as required by law.

The power project will consist of a conventional or supercritical pulverized hard coal-fired boiler that will contain a coal unloading dock, coal storage, pulverizing machine and a conveying system that will transport the coal to the furnace. The boiler will produce superheated steam that will drive a 750-megawatt steam turbine generator. **The plant will have a 180-meter tall cooling tower that will feature low NOx burners and selective catalytic reduction to control nitrogen oxide (NOx), a fabric filter dust collector (ffdc) to capture particulates, a lime spray dryer to control sulfur dioxide (SO2) as well as mercury emission controls. When complete, this plant will be one of the most up-to-date hard-coal-fired power plants in Europe.** Construction kick off has been scheduled for the second quarter of 2008, with completion/commissioning set for third quarter 2011. The power generated will serve the surrounding

municipalities plus heat & district heating for the immediate area. IIR will continue to monitor this power project as it goes through its various stages of development.

Industrial Info Resources (IIR) is a Marketing Information Service company that has been doing business for over 23 years. IIR is respected as the leader in providing comprehensive market intelligence pertaining to the industrial processing, heavy manufacturing, and energy-related industries throughout the world.

© 2006 ALL RIGHTS RESERVED. Industrial Info Resources, Inc.

La publicité de Chevron et le discours courant inculqué sur le caractère inéluctable des terminaux de GNL vus par un spécialiste en milieu biologique marin et en gaz naturel liquéfié du MIT

In the Thursday, March 16, 2006 issue of *The New York Times*, there was a two-page, full color ad that began:

> **Russia, Iran and Qatar have 58% of the world's natural reserves.**

The U.S.A. has 3%. So what does that mean for us?

Then, in the style of their other "Will you join us" ads, they proceed to answer the question for us, though purely from the standpoint of a multinational energy company. However, in stark contrast to some of their previous ads, there is no hint of conservation or alternative energy being part of the solution. See:

http://www.chevron.com/about/advertising/print_airport/

Instead, they want the 21st century to be a repeat of the 20th, the only difference being that we would squander gas in the same way we have done with oil.

Here's what Chevron says:

"The governments of consuming nations must enact long-term policies to encourage such development and to ensure they'll have adequate supplies in the future. That means building the related [natural gas] infrastructure, including LNG terminals. This, in turn, will **require coastal communities to allow these necessary, but not necessarily pretty, facilities to be built in their backyards.**"

I'm sorry Chevron, your answer may represent what's best for you, but it does not represent what is best for the U.S. What the quoted statistics really mean is that the U.S. needs to prepare for the end of natural gas in the same way some countries have begun to prepare for the end of oil. **The last thing we need is to build an economy that is thoroughly dependent on expensive imported LNG. Anything that delays our transition away from fossil fuels is a huge mistake.**

The other problem with Chevron's answer is that it dismisses the public concerns over reckless siting of LNG import terminals to something about aesthetics. Their vision of unfettered placement of terminals in spite of local objections flies in the face of land-use planning and the idea of a community maintaining control of their destiny and the lifestyles of their citizens.

Chevron's "necessary infrastructure" is no more necessary than Walmart's supercenters. It is simply their strategy for profiting. There are alternatives to putting citizens at risk, and enacting policies to force LNG terminals onto unwilling communities is not an appropriate role for the federal government.

To me, the 58% and 3% gas reserves statistics mean something different. It means that for the U.S, the age of cheap gas is going to fade at the same time as that of cheap oil and we need to redouble our efforts to develop alternatives. Embarking on a strategy that depends on the graciousness of Russia, Iran and Qatar is just plain stupid – except maybe for stagnant energy companies unable to adapt to change.

Clifford Goudey,

MIT, Boston

(Site du groupe de discussion LNGSafety)

Cet article de l'organisme Conservation Law Foundation (CLF) montre le discours réformiste typique du compromis en termes environnementaux. Le titre est drôlement trompeur. Le gaz naturel, oui, mais en attendant autre chose de propre, de vraiment innovateur. «Nous avons besoin des aspects bénéfiques pour la qualité de l'air qu'offre le gaz naturel», affirme son président. L'organisme est présidé et administré par un conseil composé majoritairement de représentants du monde des affaires et de l'industrie. On pourrait croire qu'il a des positions avancées sur plusieurs points (dont la nécessité de politiques d'ensemble en localisation de facilités énergétiques et en approvisionnement), mais il reste que le CLF ne remet pas tellement en question le *besoin et la pertinence du GNL* et n'offre pas de véritable critique de l'industrie. Par contre, il offre des arguments intéressants sur les effets de la conservation et de l'efficacité énergétique, mais avec un discours ambigu. La délégation de Lévis qui a visité Boston en juin 2006 n'a rencontré que le CLF, en dehors de ses visites avec les autorités.

Conservation Matters ~ Summer 2004

The Truth About LNG New England Grapples with Its Energy Future

It was the highest voter turnout in the history of Harpswell, Maine. On March 9, 2004, despite a bomb threat, more Harpswell residents cast their ballots than in the 2000 presidential election: 72 percent of registered voters.

Emotions have been running high since last September when two companies proposed constructing a liquefied natural gas (LNG) import terminal in the town. "It got ugly," says Gordon Weil, Harpswell Selectman. "The climate in town was divisive, sometimes bitter. There were threats, verbal assaults and vandalism. Those wounds will take some time to heal, if they ever do."

Ultimately, Harpswell voted against the LNG terminal. Other proposals have popped up throughout New England, from Fall River, Massachusetts, to Providence, Rhode Island and Sears Island, Maine. With every new proposal comes heated debate on both sides of the issue.

But **New England's thirst for natural gas grows.**

The Federal Energy Regulatory Commission (FERC) reports that existing

import terminal capacity can meet peak monthly natural gas needs only through 2005. To provide adequate capacity through 2010, FERC says that New England needs at least one other new major LNG terminal or two to three smaller LNG terminals with roughly the same capacity as a single large facility. **New England needs LNG. But communities such as Harpswell have valid concerns about the environmental, public safety and economic impacts of such an industrial facility in their midst.**

In the late-1990s, deregulation of the electricity industry in New England, coupled with the enforcement of tighter restrictions on air pollution, led to the construction of a new generation of natural gas-fired power plants. **These new plants are more efficient and produce less dangerous air pollution** than the region's aging oil- and coal-fired plants. Natural gas power plants emit almost 30 percent less carbon dioxide (the leading contributor to climate change) than oil-fired plants and 45 percent less than coal-fired plants. Natural gas plants also produce fewer emissions that cause acid rain and contribute to asthma and other diseases.

"LNG is an important transitional fuel," says CLF President Philip Warburg. "Hopefully, one day we will meet our energy needs from non-polluting, renewable sources. Until then, New England needs the air quality benefits of natural gas."

Today natural gas represents 18 percent of New England's energy consumption, including 33 percent of the home heating market. Natural gas also accounts for nearly 40 percent of electricity generation.

And demand is increasing. FERC predicts that demand for natural gas in New England will grow at an annual rate of 1.9 percent through 2025. Given limited U.S. and Canadian supplies, much of this growing demand must be met through tanker-transported imports from Africa, the Caribbean, South America, the Middle East and Indonesia.

To trim costs of tanker transport, natural gas is cooled to minus 260 degrees Fahrenheit, which converts it to liquid form and substantially reduces its volume. Once the ship reaches an import terminal, LNG is pumped into storage tanks in liquid form or is re-gasified and pumped into natural gas pipelines. Liquid natural gas, though easier to transport, is highly volatile, prompting the controversy about siting new terminals in urban locations.

Several experts have studied the dangers posed to the public by an attack or accidental spill on an LNG tanker or storage facility. James A. Fay,

Professor Emeritus at MIT, conducted studies on facilities proposed for Fall River, Massachusetts, and Hope Island, Maine. According to Fay, fires burning above pools of spilled LNG could reach temperatures of 2000 degrees Fahrenheit. Anyone within a mile of a tanker that spilled substantial quantities of LNG would be at risk of radiation burns.

Facilitating a Balanced Dialogue on LNG

On July 29, CLF co-sponsored a public LNG symposium in Brunswick, Maine. Nearly 250 people attended the symposium to learn and share ideas about the public safety, energy consumption and environmental concerns associated with constructing LNG import terminals.

Panelists included industry experts, Maine officials, economists and CLF's own Seth Kaplan. The conference highlighted New England's, and specifically Maine's, increasing consumption of natural gas. Beth Nagusky, Director of Maine's Office of Energy, explained, "Today 45 percent of Maine's power comes from natural gas, compared with zero percent in 1991." She urged the region to increase energy efficiency and renewable energy production. She also said that LNG can be a "bridge to a cleaner energy future."

While the actual level of risk posed by LNG tankers is disputed, safety concerns, especially in the post 9/11 era, have led Boston authorities to take extraordinary measures when an LNG tanker passes through Boston Harbor each week en route to a terminal in Everett. Police close the Tobin Bridge, harbor traffic ceases and snipers are poised in the vicinity should they spot signs of foul play. Were a spill to occur, Fay's estimates would place many thousands of Bostonians at risk. The Everett terminal, operated by Distrigas, is one of only five LNG terminals in the nation, and the only in New England. Hotly contested proposals call for new terminals in densely populated urban areas such as Fall River, Massachusetts, and Providence, Rhode Island. Another proposal calls for expanding the Everett terminal.

Yet many communities do not want an LNG facility to be sited in rural areas either. In Harpswell and Sears Island, concerned citizens have objected to proposed terminals because of safety hazards as well as adverse impacts on lobstering and fishing.

These concerns, in both urban and rural areas, have resulted in proposals for offshore terminals in New England. As with land-based proposals,

debate and controversy follow. Adjacent fishing areas might need to be closed while natural gas is offloaded into an underwater pipeline. In addition, **the technology for offloading natural gas in the high seas has yet to be proven.**

Amidst these raging site-focused debates, CLF has called on FERC and federal, state and local policymakers to **develop a regional strategy for siting LNG terminals.**

First, policymakers must assess New England's energy consumption and natural gas demands to avoid building too few or too many facilities. "It is essential that this assessment be based on a balanced approach that looks to increased efficiency and demand-side management of gas and electricity in addition to supply-side answers like new LNG import facilities," says Warburg. **A region-wide push to increase energy efficiency and develop renewable energy, like wind, could slow the rise in natural gas demand.**

A series of easy-to-integrate measures such as high-efficiency appliances, better building codes and reduced energy use through smart building management will help the region manage demand for natural gas. **"Energy efficiency can reduce our intense, immediate need for natural gas and can also help reduce our long-term reliance on natural gas," explains Seth Kaplan, Director of CLF's Clean Energy and Climate Change program.** Continued innovation and development of renewable energy will also diminish New England's growing reliance on LNG. **Every megawatt of energy that comes from renewable sources, like wind, solar and biomass, displaces a megawatt of production from existing fossil fuel-burning plants.** New England must embrace small-scale renewable energy projects that can provide clean energy to individual communities as well as large-scale projects that can benefit the entire region.

In addition to a careful assessment of demand for natural gas, CLF has called on policymakers to craft a series of well-defined criteria for terminal siting. "We need to bring together industry experts, policymakers and concerned citizens to develop criteria for siting an LNG terminal," explains Warburg. "Once we know what we are looking for in a site, we can use that knowledge to guide our search for the best option." **Even with increased energy efficiency and renewable energy, New England very likely needs additional LNG import terminals to supply natural gas to homes and power plants.** "The fact remains that New England has substantially converted its electricity generation from coal and oil-burning plants to natural gas-burning plants," says Rob Gardiner, CLF's Maine Advocacy Center Director. **"The reduction in air pollution**

La Californie est une ardente défenseur des énergies vertes. La Commission d'étude sur la politique d'approvisionnement en GNL proposée ici n'a jamais été mise sur pied, la proposition ayant été rejetée par le comité sur le commerce de la Chambre d'Assemblée.

Broad Coalition Calls for Comprehensive Review of Liquefied Natural Gas

For Immediate Release – 28 August 2006

Contact:

Rory Cox" <rcox@pacificenvironment.org>

Rory Cox : 415.399.8850 x302

Cell: 510.459.0933

San Francisco, CA: A law which will require **a comprehensive review of Liquefied Natural Gas (LNG) terminals in California** will likely be reviewed by the Assembly Utilities and Commerce Committee early this week, and potentially move to a floor vote. Nearly 60 organizations representing business, labor, environment and consumer interests have endorsed the law.

The law, SB426 (authored by Senator Joe Simitian and Assembly member Fran Pavley) would require **the need for LNG be evaluated, given California's current clean energy initiatives and North America's natural gas supply.**

The law would also require the state to conduct an evaluation of six proposed coastal terminals where LNG would be offloaded, regasified, and sent into the state's existing natural gas grid. Each proposed LNG project would be scrutinized for its impact on safety, the environment, and the economy.

"Currently, California is handling LNG proposals through a lot of backroom dealing by high-paid lobbyists," said Rory Cox, California Program Director at Pacific Environment. "This law will mandate **something that the state has never done: a public conversation about this new source of imported fossil fuel.**"

LNG is natural gas that has been super-cooled to -260 degrees Fahrenheit so it can fit aboard large tankers and shipped abroad. It enables oil multinationals such as Mitsubishi and Shell to import natural gas extracted in Russia, Indonesia, and Australia into California. LNG is highly combustible, can travel for miles if it leaks from its storage tank, and when it ignites can create a highly destructive fireball. A 2004

LNG accident in Algeria resulted in a conflagration that killed at least 27, and shattered windows up to five miles away. LNG tankers are known terrorist targets.

Due to community safety concerns, as well as the implications of increased fossil fuel dependence, LNG is highly controversial. **"LNG should be subject to the same scrutiny as our other energy choices,"** said Steve Taber, Chairman of the Princeton Development Corporation, a

California-based clean energy corporation. "If that scrutiny concludes that LNG is not our best choice, then investment in LNG would create a big economic dead weight. By instead making smart choices in renewables and efficiency, California can become energy independent and filthy rich."

Other supporters of SB426 include Phil Angelides, Steve Westly, the California Apollo Alliance (a coalition of labor unions and environmental groups), the Sierra Club of California, the Utility Consumers Action Network, and California League of Conservation Voters. Both the *San Francisco Chronicle* and the *Los Angeles Times* published editorials supporting the law.

A complete list of endorsers is below.

Amazon Watch
American Biodiesel Inc (dba Community Fuels)
Apollo Alliance (California)
Beacon Foundation
Bluewater Network – A Division of Friends of the Earth
Border Power Plant Working Group
CalCoast Planning and Conservation League
California Coastal Protection Network
California League of Conservation Voters
Californians for Renewable Energy – CARE
Carol Misseldine, Sustainability Director, City of Oakland
Center for Energy Efficiency and Renewable Technologies (CEERT)
Center for Biological Diversity
Central Coast Alliance United for A Sustainable Economy (CAUSE)
City of Malibu
Communities for a Better Environment
Communities for a Safe Environment
Community Environmental Council
Divers' Environmental Conservation Organization
Environment California
Environment in the Public Interest

from cleaner-burning natural gas plants is essential to improving New England's air quality."

CLF is therefore promoting a regional strategy that not only evaluates our natural gas needs, but also involves communities in the LNG siting discourse. The safety and environmental concerns raised by seasoned experts and the broader public warrant careful scrutiny. **We must find a solution that keeps New England's environment healthy and its residents safe.**

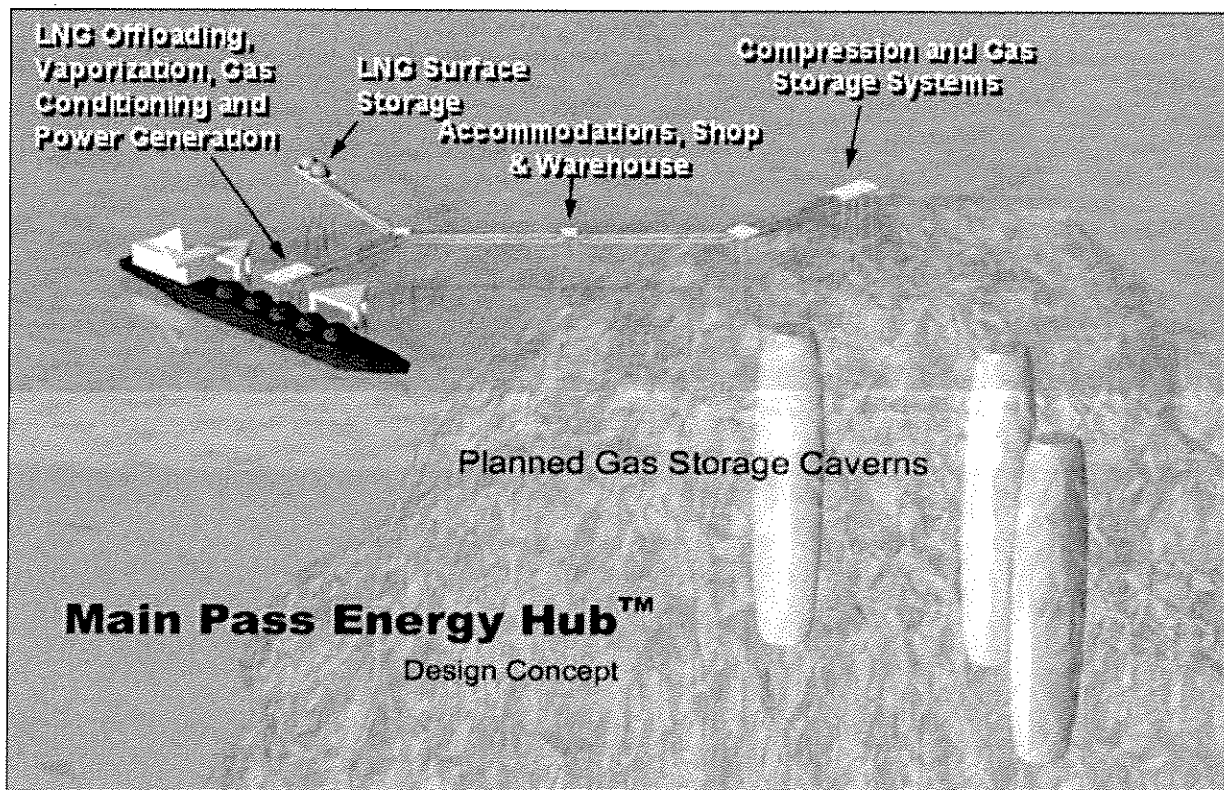
We have yet to develop and implement renewable energy technology that can carry the load of our current fossil fuel-burning power plants. In the meantime, LNG can be a transitional fuel that propels the region through the coming years.

Melanie Stein is a CLF staff member.

Copyright © 2006 Conservation Law Foundation

Environmental Defense Center
Environmental Health Coalition
Global Exchange
Greenpeace
International Forum on Globalization
Kyoto USA
League for Coastal Protection
LNG Danger.com
Los Angeles Times
Local Power
Long Beach for Citizens for Utility Reform
Malibu Coastal Land Conservancy
Marin County Board of Supervisors
Murray Rosenbluth (Port Hueneme City Council)
No LNG Community Alliance (Oxnard)
Oceana
Orange County Coastkeeper
Pacific Environment
Physicians for Social Responsibility/Sacramento
Princeton Development Corporation
ProPeninsula
San Diego Baykeeper
San Francisco Chronicle
San Luis Obispo County Coastkeeper
Santa Barbara Channelkeeper
Santa Monica Baykeeper
Sara Nichols
Saviers Road Design Team
Sierra Club California
Southern California Watershed Alliance
Surfrider Foundation
Sustainable Fairfax
The Ocean Conservancy
Utility Consumers Action Network (UCAN)
Vote Solar
Vote the Coast
Wildcoast/ Baja Coastkeeper
Women's Energy Matters

Concept de terminal en mer, au large de la Louisiane, loin des zones habitées terrestres mais nuisible à l'environnement marin et aux industries de la mer



Les Affaires

Dossier spécial, samedi 26 août 2006, p. 33

Énergies de demain

L'énergie se diversifie et se décentralise

Les consommateurs d'énergie sont davantage autonomes qu'auparavant

Charles-Albert Ramsay

Les citoyens et les entreprises peuvent dorénavant devenir leurs propres producteurs d'énergie grâce à de nouvelles technologies et à l'ouverture de l'État.

"Nous entrons dans l'ère de l'énergie décentralisée", se réjouit Stephen Guilbeault, coordinateur pour le Québec de Greenpeace.

Du coup, l'époque où chaque ménage n'avait qu'à se brancher au réseau d'Hydro-Québec ou de Gaz Métro SEC pour assurer son approvisionnement en énergie, sans avoir à réfléchir à comment, ni où elle est produite, pourrait être révolue. Les édifices eux-mêmes deviendront des mini-centrales d'énergie. Depuis le printemps, Hydro-Québec permet aux citoyens de réduire leur facture d'électricité en installant de l'équipement personnel, comme une éolienne, un panneau solaire ou un système géothermique. Une perspective qui plaît à M. Guilbeault, qui y voit une façon de réduire les gaz à effet de serre (GES) produits par le pétrole et le gaz naturel. C'est pourquoi Greenpeace garde un oeil ouvert sur les nouveautés dans ce secteur.

Marco Paquin, directeur-général par interim de l'Association québécoise pour la maîtrise de l'énergie, rappelle que son organisme milite en faveur d'une plus grande efficacité énergétique depuis longtemps. Du coup, l'AQME appuie vigoureusement l'adoption d'énergies renouvelables, propres et locales.

Toronto en avance

Au Canada, cette prise en charge de l'énergie par les citoyens se manifeste fortement à Toronto. Par exemple, des voisins ont acheté collectivement l'électricité d'une éolienne qu'ils ont installée en plein centre-ville. La coopérative WindShare a ainsi vendu à ses membres des parts qui donnent droit à des kilowattheures (kWh). En 2002, elle s'est associée à Toronto Hydro Energy Services pour ériger une éolienne de 30 étages. Fabriquée par la Danoise Lagerwey Windmaster B.V., la turbine alimente 250 maisons.

Des groupes de quartiers ont aussi mis leurs épargnes en

commun pour s'équiper de panneaux solaires, installés sur les toits de leurs maisons. Par exemple, le Riverdale Initiative for Solar Energy a mandaté ce printemps l'entreprise Solera Energies pour équiper les maisons de 75 résidents de ce quartier cossu. Des projets identiques sont en branle dans six autres quartiers.

Un prix trop bas

Au Québec, ce genre d'initiatives locales se fait toujours attendre, déplore Benoît Perron, président d'Énergie solaire Québec, un groupe de promotion des énergies renouvelables. Il rappelle qu'il y a 20 ans, des dizaines de Québécois ont installé des panneaux solaires sur leurs toits grâce à un programme fédéral de soutien financier. Mais il a été mis au rancart dès l'élection du gouvernement Mulroney. Depuis, l'engouement s'est éteint. À 0,06 \$ le kWh, le prix de l'énergie au Québec est tellement bas qu'il n'encourage pas les technologies de remplacement.

Cependant, la facture est plus salée en Ontario (0,11 \$), ainsi que dans les métropoles américaines de Boston (0,18 \$) et New York (0,20 \$). Puisque ces régions sont souvent alimentées par des centrales nucléaires ou thermiques, au charbon ou au gaz naturel, les énergies décentralisées sont une solution à plusieurs problèmes, dont la réduction de la pollution.

Les entreprises s'y mettent

Pour la plupart des consommateurs, le panneau solaire photo-voltaïque (PV) est sans doute la technologie la plus intéressante. Le PV transforme les rayons du soleil en courant électrique. Le marché mondial représente déjà des ventes de 10 milliards de dollars (G\$) annuellement, selon un rapport d'analystes de la Financière Banque Nationale.

En 2004, GE Energy s'est lancée dans ce marché avec l'acquisition d'AstroPower après des décennies à regarder passer le train.

"GE ne serait pas dans ce marché si elle ne croyait pas pouvoir être le numéro un ou deux de l'industrie", écrit Tom Astle, analyste de la FBN.

Mais à 0,45 \$ / kWh, le PV est loin d'être aussi abordable que le service d'Hydro-Québec. Bien sûr, l'efficacité du PV pourrait doubler dans les 20 prochaines années, mais en attendant, les Québécois attendent. C'est pourquoi, ici, le solaire thermique se vend mieux que le PV.

Discrètement, des centaines d'entreprises comme Bombardier ont

adopté ces "murs solaires". Il s'agit de surfaces non-vitrées qui accumulent l'énergie du soleil pour chauffer l'air ou l'eau.

"Ces entreprises ont souvent de très importantes entrées d'air frais pour leurs activités quotidiennes. Chauffer au mazout ou à l'électricité coûte très cher", explique Christian Vachon, président d'Énerconcept, de Magog.

L'expert assure que les sociétés font généralement leurs frais en moins d'un an. Il s'étonne d'ailleurs que la technologie, largement adoptée en Europe et au Japon, soit encore méconnue ici.

"Nous avons plus de soleil qu'en Europe", rappelle-t-il.

charles-albert.ramsay@transcontinental.ca

© 2006 Les Affaires. Tous droits réservés.

Published on Wednesday, February 23, 2005 by Pacific News Service

Will LNG Save America's Oil-Addicted Economy?

By Franz Schurmann

Later this year, Americans will likely hear the acronym LNG and see new tankers carrying LNG sailing into some U.S. ports. LNG is intended to save the heart and core of American civilization -- to save our automotive civilization from possible rust and decay, and the Republicans from political decline.

LNG stands for "Liquefied Natural Gas," and the tankers, coming from many parts of the world, will be carrying gas that has been liquefied at around -260F.

Natural Gas Intelligence, a weekly gas market newsletter, reports that there are 43 pending proposals for the new LNG import facilities in North America. If all are built they could supply 60 percent of existing demand in the United States and Canada.

Obstacles, such as local opposition to the new terminals, will cut the number of facilities eventually built. But, experts say, only a fraction of the number of terminals are really needed.

Why the new clamor for LNG? Americans used to have one economic weapon no other country had -- the dollar. Some 70 percent of all oil and gas in the world is still denominated in U.S. dollars. But, once Bush decided to wage three wars (the war on terror, Afghanistan and Iraq), the dollar started going down. The reason: bond buyers, both Americans and foreigners, began to sense that the dollar was no longer a "safe haven" for investors.

The United States has long consumed a quarter of the planet's fossil fuels. Ever since 1970 when America started importing oil from the Middle East, the powerful dollar attracted just about all oil and gas exporters. But the dollar, just days ago, ran the risk of hurtling into a free-fall vis-a-vis the yen and the euro.

Ominously, the superhard Chinese RMB (aka Yuan) could scuttle its current dollar peg and go for "a basket of strong currencies." The basket concept came from Robert Mundell, the 1999 Nobel prize in economics and also known as the "father of the euro." Some years ago, Mundell suggested to the Chinese leaders to consider doing away with the dollar peg and using the "basket" instead, which could push the dollar to the brink of a free-fall.

If a dollar free-fall should take place, Americans will confront an energy crisis that will make the October 1973 oil shortage seem a mild nuisance.

In April 1973, America had experienced the first signs of an energy crisis, but the public

was mesmerized by the Watergate scandal. Eventually, President Richard Nixon resigned -- not only because of the Watergate scandal, but also because he was weakened when he allowed the October 1973 Yom Kippur war to break out. On October 20 the Saudis proclaimed an oil boycott against the United States. Nixon created the Federal Energy Office, which many people saw as a step towards dictatorship. (After many name changes the FEO is now part of the Homeland Security Department.)

Nixon's Treasury Secretary George Shultz offered a solution to the looming energy crisis. He proposed that America's entire industrial structure be eventually operated by natural gas instead of oil and coal. In the early 1970s there was enough natural gas in many states, especially California and Texas, that could go through domestic pipelines to fuel industries.

But Nixon, while agreeing with Shultz, had more grand ideas. **Nixon wanted to bring the newly liquefied natural gas tankers into a small fishing Maine fishing port, Machias. The Machias folk had no desire to be guinea pigs for LNG.** They feared explosions and, since most LNG tankers came from the Middle East, they worried about acts of terror. **And so, no LNG tanker has entered U.S. ports during the last 32 years. When Nixon resigned in August 1974 his grand LNG design evaporated.**

Now, LNG is back on the American agenda, as a result of growing political obstacles to continued U.S. access to Mideast oil, reports of the depletion of oil sources and threats to the U.S. dollar.

The man widely presumed to be leading the fight against American energy decline is Vice President Dick Cheney, Halliburton's chief executive from 1995 to 2000. He fully knows that if America undergoes another energy crisis the Republicans, not the beleaguered Democrats, will face political decline.

In an interesting coincidence, KBR, a subsidiary of Halliburton, recently finished building the world's largest LNG tanker, which ships gas from a port in Northern Egypt. (Egypt has become the 13th nation to export LNG.) Combined with the proposed North American LNG terminals, Halliburton's LNG tanker-building activity may signify that Cheney's cavalry is already preparing to come to the rescue.

Franz Schurmann (fschurmann@pacificnews.org), emeritus professor of history and sociology at U.C. Berkeley and the author of numerous books.

Article found at :

<http://www.energybulletin.net/newswire.php?id=4475>

Original article :

http://news.ncmonline.com/news/view_article.html?article_id=03526b3a8c2f6135572099822208d0f9

Etats-Unis : les énergies renouvelables deviennent compétitives

D'après l'institut Worldwatch, les énergies renouvelables sont en passe de devenir aussi rentables que les carburants fossiles sur le sol américain.

Actuellement, les énergies renouvelables représentent un peu plus de 6% de toute l'énergie produite aux Etats-Unis. D'après un rapport publié le 18 septembre en commun par l'institut Worldwatch et le Center for American Progress, « American Energy: The Renewable Path to Energy Security », ce chiffre est cependant susceptible d'augmenter rapidement durant les années à venir.

Parmi les nouvelles technologies qui font appel aux énergies renouvelables, nombreuses sont celles qui sont devenues, ou vont bientôt devenir, aussi rentables que les carburants fossiles. Des taux de croissances dynamiques entraînent en effet une réduction des coûts et encouragent les avancées technologiques. **Depuis 2000, la production globale d'énergie éolienne a plus que triplé, celle des cellules solaires a été multipliée par six**, celle du carburant à base d'éthanol a plus que doublé et celle du biodiesel a quasiment été multipliée par quatre. Depuis 1995, les investissements globaux annuels dans les « nouvelles » énergies renouvelables ont augmenté de 600% avec un investissement cumulatif durant cette période de près de 180 milliards de dollars.

Le rapport souligne « qu'avec l'explosion du prix du pétrole, l'augmentation du risque de dépendance à ce dernier ainsi que les preuves de plus en plus flagrantes de l'impact néfaste des carburants actuels sur l'environnement, le pays a des preuves incontestables qu'il devient impératif d'exploiter ces technologies sur une plus grande échelle. »

Ce rapport conclue notamment :

- L'Amérique possède certaines des meilleures ressources en énergies durables du monde, lesquelles sont capables de satisfaire une part significative et croissante de la demande nationale en énergie. **Un quart des terres américaines subit par exemple des vents suffisamment forts pour produire une électricité aussi bon marché que le gaz naturel et le charbon** ; et l'ensoleillement de sept états du sud-ouest du pays suffirait pour multiplier la capacité actuelle de production électrique par dix.
- Tous les états américains (exceptés quatre) reçoivent des aides pour promouvoir les énergies renouvelables. Plus d'une douzaine d'entre eux ont promulgué des lois en

faveur de ces énergies ces dernières années et quatre autres ont renforcé leurs objectifs en 2005.

- **31% de l'électricité consommée en Californie provient d'énergies renouvelables** dont 12% sont issus de sources non hydrauliques telles que l'énergie éolienne et la géothermie.

- Le Texas possède actuellement le plus grand nombre d'éoliennes du pays et les Etats-Unis ont été élevés au rang de pays leader en installations éoliennes en 2005.

- Si l'Iowa décidait de consommer sa propre production d'éthanol, celle-ci serait à même de satisfaire la moitié des besoins en essence de l'état.

- **Les énergies renouvelables créent davantage d'emplois par unité d'énergie produite et par dollar investi que ne le font les technologies utilisant les carburants fossiles.**

Cependant, et en dépit d'un soutien public incontestable et de l'intérêt croissant que suscitent les technologies renouvelables, les Etats-Unis n'ont globalement pas réussi durant ces dix dernières années à s'aligner sur la croissance mondiale particulièrement rapide du secteur. Si les Etats-Unis devaient d'ailleurs rejoindre les leaders mondiaux en énergies renouvelables (dont l'Allemagne, l'Espagne et le Japon), le pays devrait appliquer de meilleures politiques énergétiques basées sur un ensemble d'actions soutenues et cohérentes tant au niveau local qu'au niveau régional et national.

Source

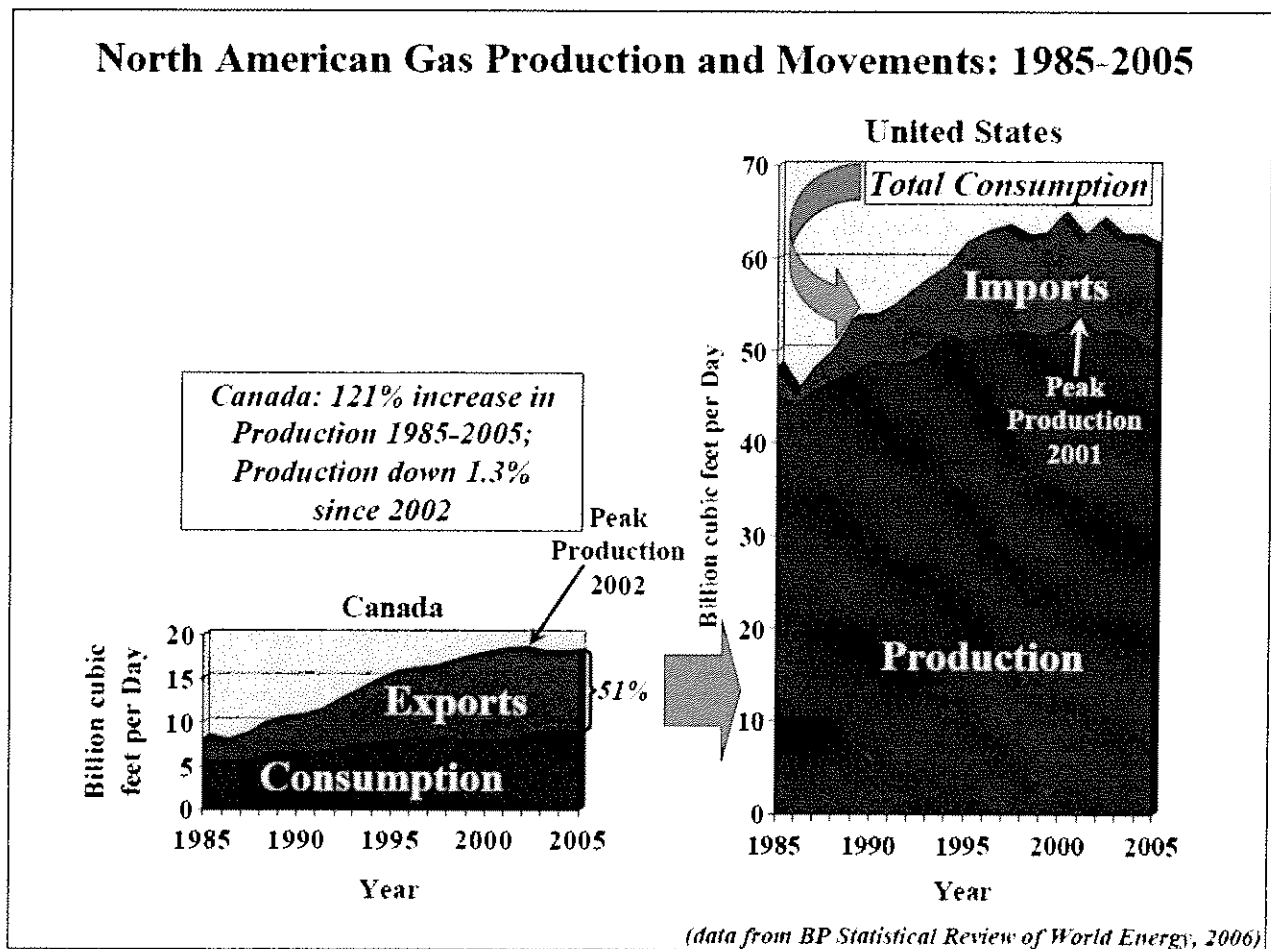
Worldwatch Institute

Auteur : **notre-planete.info**

(traduction : Stéphanie Philippidès)

page mise à jour le 26/09/2006

La production canadienne de gaz naturel stagne et diminue, alors que l'exportation aux États-Unis ne cesse d'augmenter. Avec les sables bitumineux en Alberta, la moitié de la consommation intérieure serait affectée à ce secteur. Que restera-t-il pour combler l'appétit du marché américain ? Nécessairement l'importation par GNL. Le transit par le Canada donne l'assurance aux États-Unis d'être «indépendants» en continuant d'être approvisionnés comme avant par pipeline. Le portrait du gaz naturel est ainsi le même que celui du secteur pétrolier.



Date: Mon, 11 Dec 2006

Subject: [LNGsafety] FERC's Kelly, "U.S. Cannot Rely on Canada for Supply"

Hi,

In their continued effort to justify the LNG gold rush they fostered, **FERC officials are loath to admit that the natural gas shortage is history** in light of approved North American LNG import terminals. Somehow Commissioner Kelly sees Middle Eastern and Russian LNG supplies as more reliable. I wonder if he reads the newspapers.

From: <http://www.lnglawblog.com/12112006kelly/> December 11, 2006

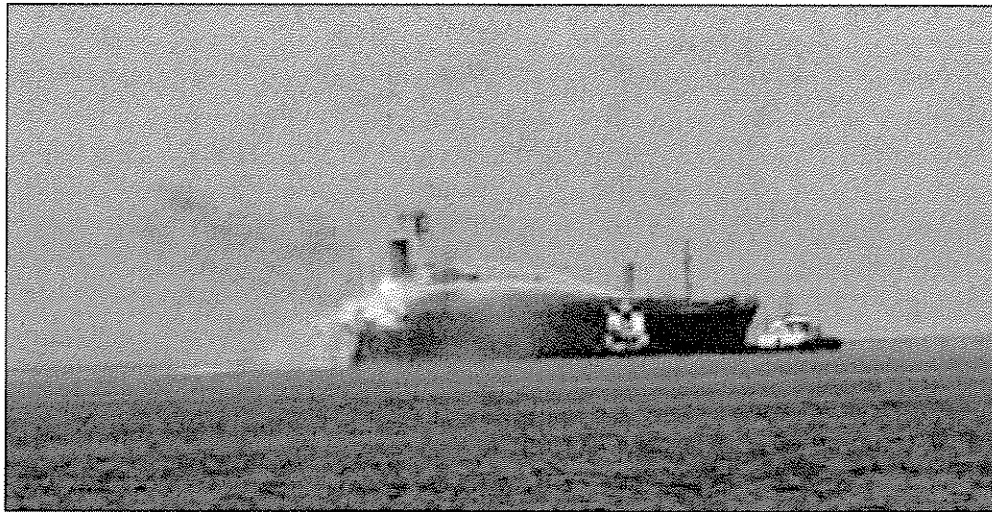
> **FERC Commissioner Kelly: U.S. Cannot Rely on Canada for Supply**

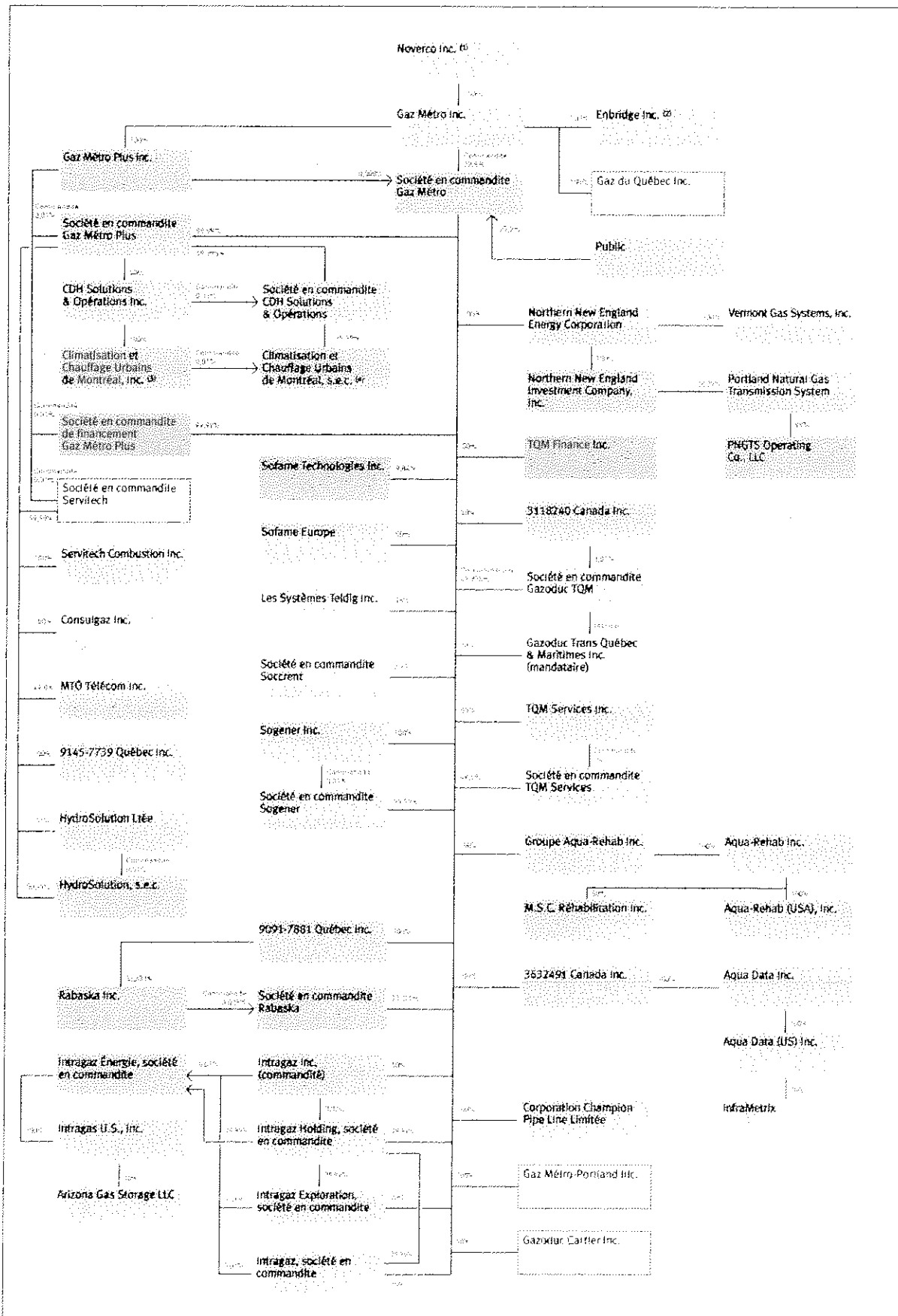
>

- > In response to suggestions that Canadian LNG terminals are a
- > viable alternative to LNG terminals in the United States,
- > **FERC Commissioner Suedeen Kelly** said that the U.S. Northeast
- > cannot rely on Canada for natural gas supply because Canada
- > is facing its own energy shortfall. Kelly also **noted that**
- > **excess regasification capacity is necessary "to be able to**
- > **respond to a global LNG market."** Kelly's remarks were made
- > Friday during a media briefing sponsored by the Center for
- > Liquefied Natural Gas. *Platts LNG Daily* provides further
- > coverage. [Subscription required]

Clifford Goudey, MIT

Le 6 juillet 2006, un incendie éclate à bord d'un navire déchargeant du GPL (propane liquéfié) à Aqaba en Mer Rouge. Les pompiers réussissent, au péril de leur vie, à éteindre les flammes après avoir coupé les amarres et éloigné le vaisseau à 1 km du quai. Ce sont d'ailleurs les consignes à suivre en cas de pareil incident au quai d'Ultramar à Lévis et pour un terminal méthanier.

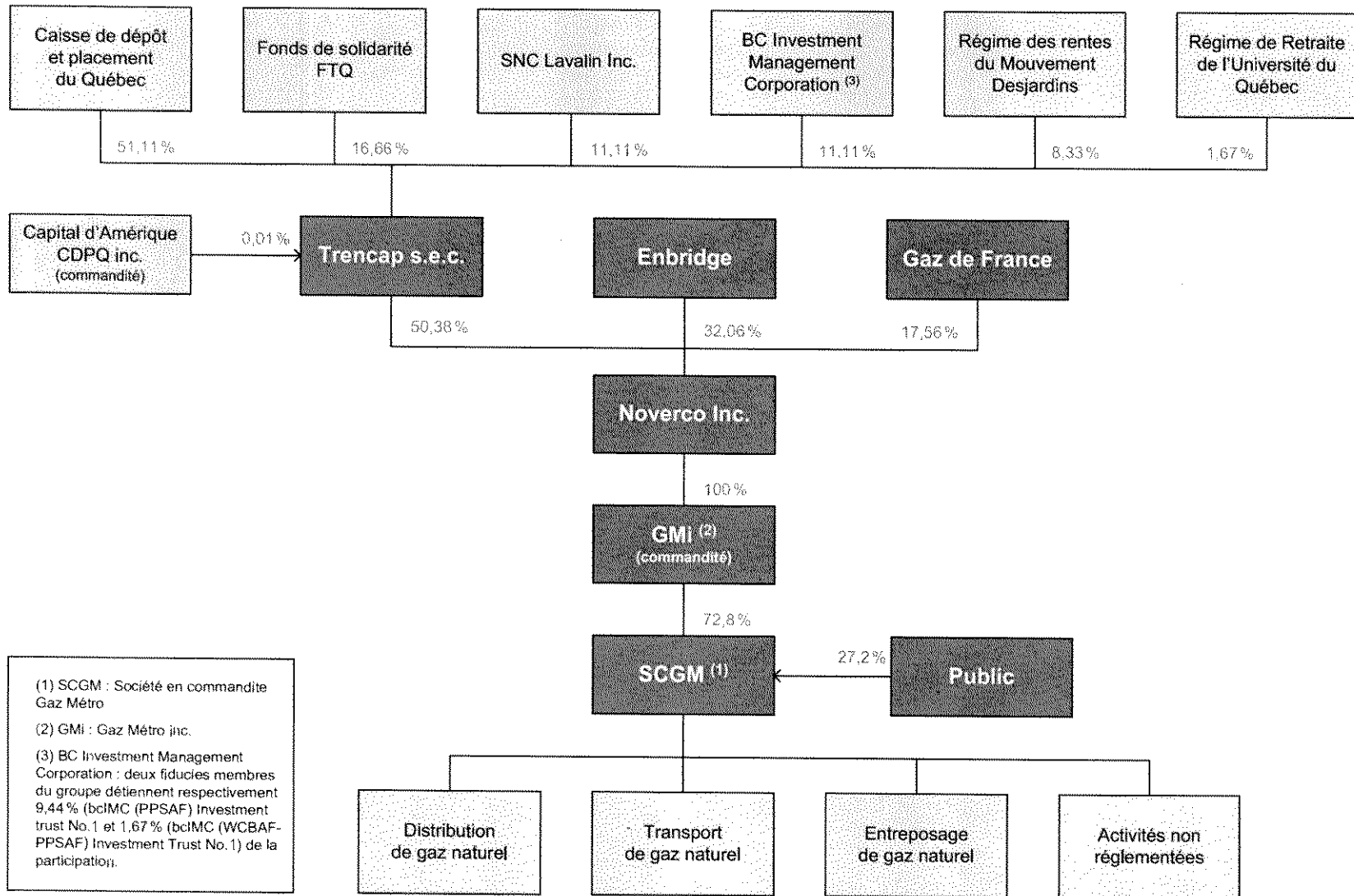




(1) Les actionnaires sont : Bencap, s.e.c. : 90,28 %, Enbridge : 22,06 %, Gaz de France : 17,56 %
 (2) Noverco détient 9,16 %
 (3) « CUM » est aussi un autre nom qui peut être utilisé

(4) « CUM, s.e.c. » est aussi un autre nom qui peut être utilisé
 (5) Compagnies inactives

Structure corporative
au 1er octobre 2005



(1) SCGM : Société en commandite Gaz Métro
 (2) GMI : Gaz Métro inc.
 (3) BC Investment Management Corporation : deux fiducies membres du groupe détiennent respectivement 9,44 % (bcIMC (PPSAF) Investment trust No.1 et 1,67 % (bcIMC (WCBFAF-PPSAF) Investment Trust No.1) de la participation.

Un rapport du MIT, commandé par le Département américain de l'énergie, conclut au caractère concurrentiel de la géothermie. Cette dernière n'est autre chose qu'un forage qui extrait la chaleur de la terre; elle utilise les mêmes techniques que l'industrie minière et de l'exploration gazière. En plus de ses coûts économiques monétaires compétitifs, la géothermie offre un autre avantage, considérable : l'avantage environnemental. Le nouveau bâtiment de l'Université du Québec à Rimouski à Lévis (UQAR) utilise cette technologie. Cette université est pressentie par Rabaska et Lévis pour créer une chaire de recherche en efficacité énergétique.

To:LNGsafety@yahoogroups.com
From:"cliffgoudey" <cgoudey@MIT.EDU>
Date:Tue, 23 Jan 2007

Subject:[LNGsafety] Re: Interesting Item for Further Thought

--- In LNGsafety@yahoogroups.com, <kuprewicz@...> wrote:

- >
- > For those of you under the gun for blanket energy
- > infrastructure, you might be interested in the following
- > article posted in *USAToday* **about geothermal electrical**
- > **generation**. The more experienced in this energy source, will
- > tell you that power generation from this source isn't new,
- > isn't free either, and economics may restrict where such
- > plants can be placed. Corrosion issues can be a real bear
- > for example.

But don't you think such issues are solvable if they receive the right kind of attention and R&D support?

- > Even western located geothermal is probably not as cheap
- > as stand alone gas power generation turbine plants which
- > would explain past mothballing of some of these geothermal
- > facilities. Got to wonder though, with the cost of
- > supporting gas and oil infrastructure such as production,
- > transportation, and pipelines added to the picture, how the
- > true societal marginal cost for geothermal in this country
- > stacks up against conventional overseas oil and gas supplies
- > delivered to the consumer? I believe the carbon generation
- > isn't real high either though not zero for geothermal.

If the costs of securing foreign fossil fuels in DOD dollars and American lives is factored in, then I suspect geothermal would compete quite nicely. The jobs associated with perfecting and implementing these and other renewable technologies would be another advantage.

We should listen carefully to what is said in tonight's State of the Union address and then compare how the words stack up against the usual string of pro-O&G policies. Expect plenty of rehetoric on the mythical "Hydrogen Economy."

And since this is a "Safety" forum, it is instructive to ponder the consequences of a major failure at a renewable energy site (geothermal, wind, solar) compared to a land-based LNG import terminal or major oil refinery.

Regarding your curiosity about **societal costs of various energy options**, a place to start is the list of working papers at MIT's Center for Energy and Environmental Policy Research (CEEPR) at: <http://web.mit.edu/ceepr/www/workingpapers.htm>

An interesting paper there is by John Deutch titled "What should the government do to encourage technical change in the energy sector?" See: <http://web.mit.edu/ceepr/www/2005-009.pdf> Not surprisingly, DOE's approach is faulted.

Cliff

USA TODAY

Study: Geothermal energy could meet large part of U.S. power need

Posted 1/23/2007

Extraits

CAMBRIDGE, Mass. (AP) — The nation could generate a large part of the electricity it will need in the future by tapping the enormous amounts of heat energy locked up in hard rock below the earth's surface, a new Massachusetts Institute of Technology-led study indicated Monday.

Heat mining could supply energy at competitive prices and with minimal environmental impact, according to the 400-page report commissioned by the U.S. Department of Energy to assess the value of continuing to fund geothermal energy study.

(...)

The United States is the biggest producer of commercial geothermal energy in the world, with most of its plants in California, Hawaii, Utah and Nevada. **The systems were the third-largest source of renewable energy in the nation in 2003, supplying electricity to some 2.8 million households, according to the Washington-based Geothermal Energy Association.**

(...)

"Heat in the U.S. is an enormous resource," he said. "We've just began to tap it."

Find this article at:

http://www.usatoday.com/tech/science/discoveries/2007-01-23-geothermal-energy_x.htm

Le procédé de liquéfaction Fischer-Tropsch est mis au point en Allemagne dans les années 30. L'opération Paperclip permet en 1945 de faciliter l'exil des savants allemands aux États-Unis, tout comme cela s'est produit dans le domaine astronautique avec Von Braun et le programme des fusées V-2

Bureau of Mines Synthetic Fuels Demonstration Plant

Coal Hydrogenation Plant



Fischer-Tropsch Plant

- **Louisiana, Missouri Plant**
 - Former War Depart. Ammonia plant
 - 390 acres, 75 mi N of St. Louis
 - Coal hydrogenation plant
 - \$10 million (Bechtel)
 - 200-300 bpd 2-stage plant
 - Start-up 1949
 - Fischer-Tropsch plant
 - \$5 million (Koppers)
 - 50 bpd
 - 400 employees
 - 7 German synthetic fuels scientist (Operation Paperclip)

Syntroleum

Les procédés de liquéfaction et de regazéification, issus des nécessités d'approvisionnement d'avant la guerre, ont été amplement subventionnés par les gouvernements

U.S. Synthetic Liquid Fuels Program

- **Synthetic Liquid Fuels Act of 1944**
 - **Strong support from coal states**
 - **Sponsors**
 - **Senator Joseph Mahoney (Democrat from Wyoming)**
 - **Representative Jennings Randolph (Democrat from W. Virginia)**
 - **\$30 million over 5 years**
 - **Coal Hydrogenation**
 - **F-T synthesis**
 - **Oil shale mining and distillation**
 - **Funding increased to \$87.6 million by 1955**

Symtroleum

Des habitants d'Everett s'interrogent sur leur milieu, étant déjà habitués (ou aveugles?) à leur environnement industriel. Ils commencent à réaliser que leur vie se fait «au jour le jour», en attendant ce qui semble inévitable pour plusieurs.

Life uneasy on 'the line' with LNG

By Steven Rosenberg, Globe Staff, 12/28/2003

EVERETT -- Shelia Pierce has not heard of the US Department of Homeland Security and does not know what an orange alert means. She just knows it sounds "like trouble," and wonders whether the tanker that shows up every seven days a couple of hundred yards from her house with 35 million gallons of liquefied natural gas is in the sights of a terrorist's weapon. "Hopefully I will be out of here by summer," she said, sketching out a future for herself and three teenage daughters that does not include living near LNG tanks or any flammable gas. **"Right now with the high alert you take it day by day."**

As Governor Mitt Romney and Mayor Thomas M. Menino huddled with Coast Guard officials and the State Police last week, temporarily delaying the Distrigas LNG tanker in Boston Harbor, some residents in this neighborhood called "the line" did **their own soul searching and wondered just how much longer they could continue living in the shadow of one of the largest natural gas distribution centers in New England.**

Down the line, the small strip of land that runs parallel with Route 99 before being swallowed up by the Mystic River, people, electricity, and petroleum have coexisted warily for years. The name, perhaps a nod to the nearby Charlestown border, was coined about 100 years ago when Italian immigrants put down roots. It took on a new meaning as fuel and power companies built pipelines there. Like most of Everett, the line is densely packed, with pastel-sided apartment buildings sharing tenuous turf with auto body shops, trucking terminals, factories, and warehouses. Madonnas and bird baths stand opposite some Santa Claus balloons that sway and wave; a garden leads to empty lots and cinderblock sheds; old supermarket carts rest against a chainlink fence.

The line's chief industry lies beyond two cracked concrete walls that rise above Robin Street and stretch for one-third of a mile between Rover and Beacham streets. Behind the barriers are two 12-story, double-hulled

Distrigas tanks that hold 42 million gallons of LNG -- more than enough to heat 30,000 homes for a year.

After being pumped from one of the 950-foot, double-hulled tankers that arrive every week, the LNG is held in the tanks before being vaporized and converted to natural gas, which is distributed by two interstate pipelines to gas companies throughout New England. The facility supplies about 20 percent of the natural gas consumed in New England.

Distrigas also feeds natural gas to the Exelon Mystic generating station nearby, a 1,600-megawatt station on the Mystic River that is the largest natural gas power plant in New England.

At the opposite end of Broadway, ExxonMobil operates an independent storage facility, with 28 tanks, capable of holding 15 million gallons of gasoline and petroleum. From there, gas is pumped to trucks and driven to gas stations and suppliers.

Before Sept. 11, 2001, security around the plants was not a topic of dinner-table conversation for residents of the line. Few noticed that just one Coast Guard boat escorted the LNG tankers into the harbor. Now, according to Coast Guard Captain Brian Salerno, who oversees security at the port of Boston, the tankers are boarded by Coast Guard officers at Broad Sound and are accompanied by Coast Guard, State Police, and Massachusetts Environmental Police boats into the harbor. Aerial traffic ceases overhead and inner-harbor vessels are prohibited from moving. Massport halts traffic on the Tobin Bridge and a State Police helicopter patrols above. Then the tanker is turned around by tugboats and towed the final one-half mile to its Everett docking station.

Even with this intense security -- which brought over 40 federal, state and local law enforcement authorities to the waters of Everett last Wednesday -- not everyone is convinced that the system is safe. Leading the charge has been Menino, who unsuccessfully tried to prevent the LNG tankers from returning after Sept. 11. "Mayor Menino has repeatedly described the consequences of LNG as very grave and very serious," said Seth Gitell, a mayoral spokesman.

Vitek countered that LNG is a safe and important source of energy. "Given the characteristics of LNG and the exceptionally robust construction of the ships and storage tanks, we firmly believe that LNG is as safe, if not safer to transport, and store than most other liquid fuels," said Vitek. Everett's police and fire departments have also stepped up security around the line. Last year, the police department created a marine division and

used a \$150,000 federal grant to purchase a 25-foot boat to patrol Everett's waterfront. Also, Everett -- along with Revere, Chelsea, Winthrop, and Malden -- received a \$1.96 million federal grant this year for shared protective gear and equipment and will receive part of a \$16.7 million homeland security grant for Boston-area cities promised by the Bush administration in May.

Even with the new money on the way, slip-ups still occur. **Last week, Everett Fire Chief David Butler found out about the tanker by reading the newspaper. "Do I think we should have been consulted? Probably. It's something we plan to address," said Butler.**

At the end of the line on Bow Street, Richard Brandano shrugged when asked about homeland security and pointed to the six closed-circuit television cameras he installed on his house two months after Sept. 11. His house overlooks the dozens of white, rust-stained ExxonMobil tanks.

"They stepped up the patrol around these tanks, and you'd always see things going on in the nighttime. Instead of me running and looking out the window, now I can see if it's security or if someone busted in there or whatever," Brandano said, leading a visitor to his den, where a control panel lets him remotely operate the cameras, which have infrared capability.

Brandano, a 47-year-old contractor, loves the line. He takes pride in his part in restoring land across from his house that was dedicated as Thomas Langone Square, in honor of a 20-year-old Everett man who died in 1945 at Iwo Jima.

But **even the lure of this new memorial, with its fruit trees and freshly cut grass is not strong enough to keep him. "It's a dirty, tough, smelly part of town," he said. Like Pierce, he plans to move.** "I tell my wife and my family that I've been looking at property in Lynnfield. Of course it's much more money than I have to spend but it makes you wonder what you're still doing in this area."

Further up Bow Street, at Angelo's Barber Shop in the heart of the line, Jack Cleary stood in the barber shop where he has cut hair for the last 10 years and talked about the plant with Kevin Hurley, who has been coming in every two weeks for a trim for as long as both men can remember. They make dark jokes about the LNG plant.

"The place is a natural target," said Cleary. "Something will happen, eventually. It will take time, but what are you going to do?"

"All they need is three rockets," said Hurley.

"You've got to have terrorist insurance," said Cleary.

"I don't care, I won't be here," said Hurley.

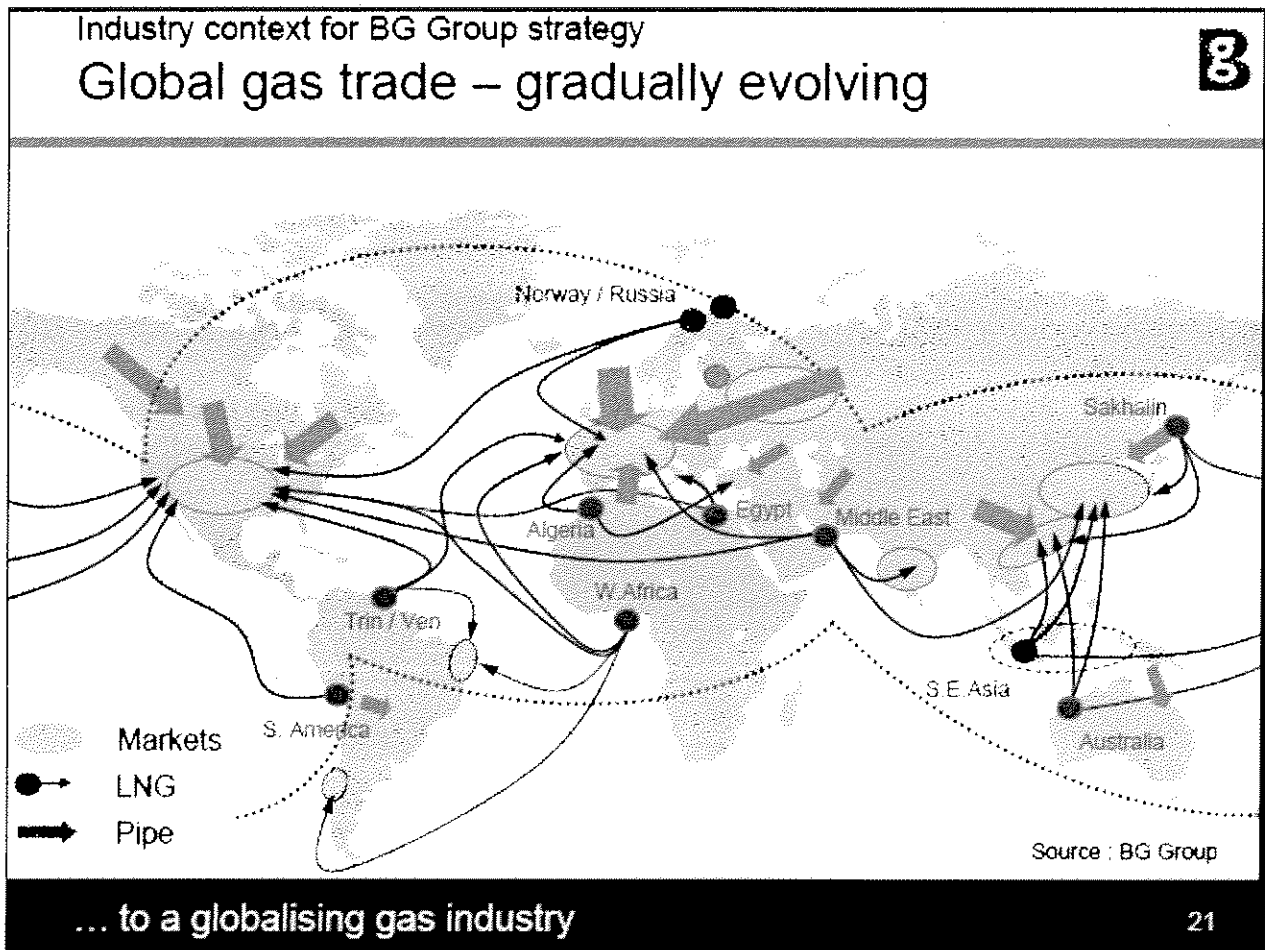
But on Robin Street, where 18-wheelers rumble over potholes, one of the line's oldest residents insisted she would never leave. "They have more security down there. I'm content. I'm not fearful," said Louise Boever, who still lives in the house where she was born 76 years ago.

Rather than the government alerts, **it's the gradual disappearance of homes in the neighborhood that concerns her. "Once the homes are gone from here that's going to be it, because we're zoned for industry,"** she said.

Steven Rosenberg can be reached at rosenberg@globe.com. Globe staff reporter Brenda Buote contributed to this article.

© Copyright 2003 Globe Newspaper Company.

Le marché de l'Amérique du Nord concentre les routes d'exportation de l'Asie (Sakhalin, Indonésie, Australie) et de l'Europe-Afrique (Norvège, Algérie, Russie), à des distances plus courtes que celles existantes pour les marchés déjà établis. Le Canada joue un rôle clé dans les charges induites par le transport (Didier Holleaux, GDF, à propos de la proximité de Rabaska par rapport au golfe du Mexique); il se situe dans le bloc continental nord-américain, un seul bloc de marché.



«Nous ne pouvons pas nous fier à des sources étrangères et incertaines» :
l'approvisionnement énergétique américain est un sujet sensible d'intérêt national. Le
rêve technologique de conversion du charbon en combustible liquide relève de cette
obsession. L'importation du GNL n'aurait-il pas pris sa place aujourd'hui ?

U. S. Rep. Jennings Randolph Democrat of West Virginia



“We cannot survive a prolonged
famine in liquid fuels. We must
not rely on uncertain foreign
sources. It is in the interest of
national security, it is imperative
that an American synthetic-liquid-
fuels industry be established as
soon as possible, *before* our
petroleum is gone, *before* another
national emergency.”

Coal Age, 51/8 (August 1946), 86-91.

Syntroleum

Comment le consommateur a-t-il un avantage avec un prix au marché pour son approvisionnement en énergie de chauffage ou d'électricité ?

Texas

Dec. 26, 2006, 10:58PM

Pipeline company is under pressure Claims made of post-storm price manipulation

By TOM FOWLER

<http://www.chron.com/disp/story.mpl/business/energy/4427663.html>

State and federal officials are looking into claims a Dallas-based pipeline company manipulated natural gas prices after last year's hurricane season.

If the allegations are true against Energy Transfer Co., the largest owner of intrastate pipelines in Texas, gas producers and state tax collectors could have been short-changed.

The company has denied any wrongdoing.

The accusations first came to light this fall when Platts, the publisher of several energy industry publications, reported that some natural gas traders, which it did not name, believed the company drove down prices for gas flowing through a key pipeline hub at the Houston Ship Channel.

They claimed Energy Transfer would wait until the last 30 minutes of an important end-of-month trading day and sell gas well below the going rate.

The company would lose money for selling gas at the lower price on the spot market, but according to the reports it would make more money in futures markets where it was betting on a lower price.

Arbitrage between physical and financial markets is a legal practice used by many companies to manage risks by limiting how much they profit or lose when the price of physical gas differs from expectations. But purposefully selling physical gas at below-market rates with the intent of manipulating futures prices (*prix dans les opérations à terme, PB*) crosses the line.

A spokeswoman for Energy Transfer says the company believes its transactions complied with all applicable rules and regulations.

"It's important to note that these events happened during unprecedented market conditions, right after hurricanes Katrina and Rita," spokeswoman Vicki Granada said.

Soaring costs

Prices shot up after the storms when much of the Gulf of Mexico's natural gas production was interrupted for months because of damaged production platforms, pipelines and onshore processing plants.

Energy Transfer acknowledges it has received requests for information from investigators about its trading activities in the six months after the hurricanes, but would not say which agencies it has talked to.

In a filing with the Securities and Exchange Commission, the company said it was putting aside about \$32 million for litigation matters unrelated to environmental liabilities.

Investigators involved

Officials with two trade groups who have raised concerns about the allegations say they have talked recently to state and federal investigators about the allegations.

Adam Haynes, vice president of the Texas Independent Producers and Royalty Owners, said a Federal Energy Regulatory Commission lawyer has been in contact with his organization and others about the claims.

And Alex Mills, president of the Texas Alliance of Energy Producers, said an antitrust investigator from the Texas Attorney General's Office held a meeting this month in Austin with his group and others.

Officials with the AG's office and FERC declined comment on the allegations, however.

"As a matter of policy the commission does not comment on particular complaints or if there even is an investigation," FERC spokesman Bryan Lee said.

Officials with the Commodity Futures Trading Commission, which oversees the trading of futures contracts, also declined comment.

Wide-ranging effects

If prices were manipulated, they could have wide-ranging effects, even to natural gas that didn't flow through the Houston Ship Channel, said Obie O'Brien, head of government relations for Apache Corp., a natural gas producer.

The spot prices are used to create monthly index prices at trading points around the country, which are then widely used to set terms of gas contracts between buyers and sellers. If those prices were moved down artificially it means many producers of gas received less than they should have.

And because the state of Texas is one of the largest owners of natural gas royalties and is also paid a 7.5 percent severance tax when natural gas is sold, it could mean the state didn't receive its full share of revenue either.

An official with the Texas Comptroller's Office, the agency responsible for collecting taxes, said she could not determine if the office was aware of the allegations because most workers were out for the holidays.

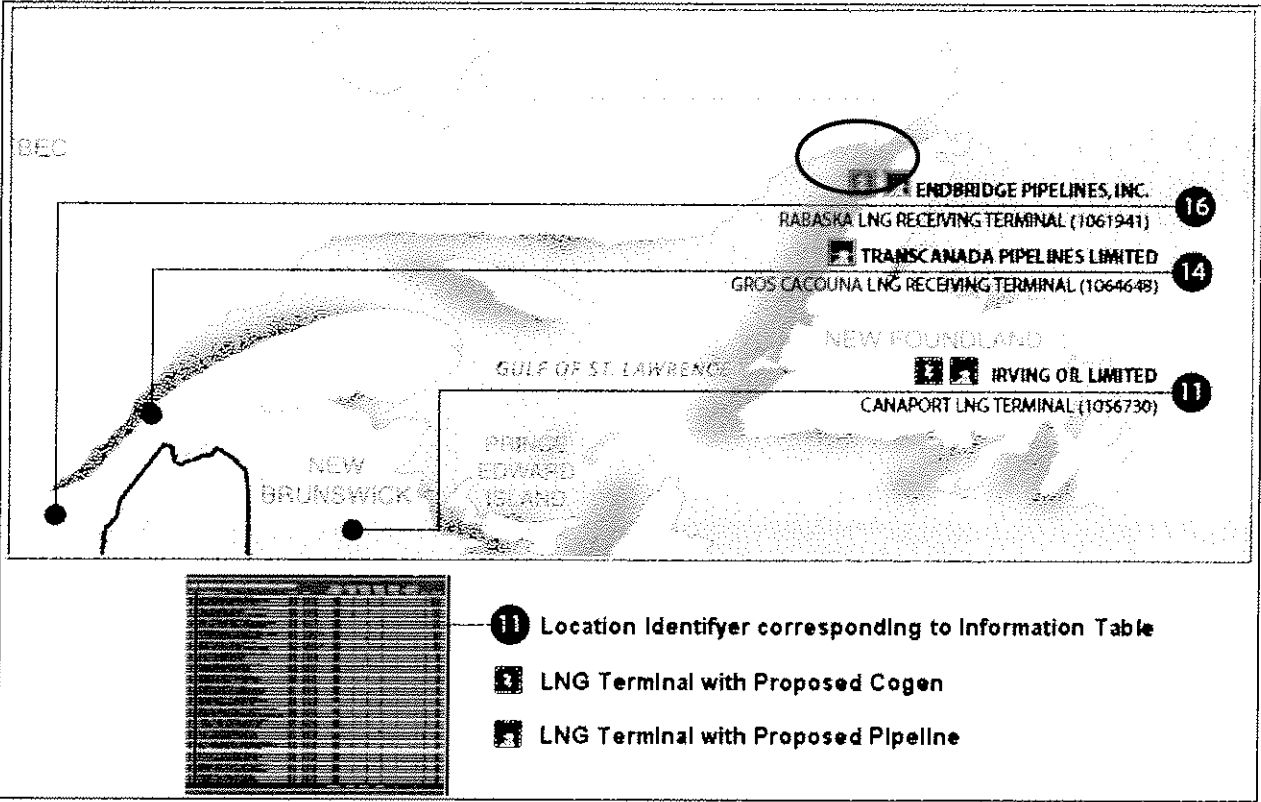
A spokesman for the Texas General Land Office, which oversees the state's natural gas royalty holdings, said officials there were aware of the issue but were not yet a party to any investigations.

"The problem with these kinds of cases is you need someone with subpoena power to get documents, or you'll never find out exactly what happened," O'Brien said.

"If it turns out the original reports were wrong, then they were wrong. But if there's something to it, there ought to be consequences."

tom.fowler@chron.com

Sur cette image tirée d'un répertoire industriel en 2006, on trouve l'intention d'Enbridge d'installer une centrale de co-génération électrique («cogen»).



Source : **Industrial Info Resources**,
Sugar Land, Texas

www.industrialinfo.com

La FERC considère le *besoin* comme secondaire par rapport à la *sécurité* dans ses décisions concernant les ports méthaniers. La sécurité devient ainsi une sorte d'échappatoire commode sur une question politique délicate, car on peut toujours trouver des «mesures d'atténuation» qui satisfont à la sécurité, tout en évitant de toucher à la donne de base.

To:LNGsafety@yahogroups.com
From:kuprewicz@comcast.net
Date:Wed, 06 Dec 2006 07:10:54

Subject: Re: [LNGsafety] FERC Head Says Agency's Review Is Limited To Safety

For those of you who may actually believe **FERC's comments about safety in the following article**, please contact me as I have more of that swampland on Mars for sale and I can give you a great price, honest!

This latest article appears to be another spin attempt by an agency to sell how effective they are as they appear to drive a hidden agenda. From where I stand such distortions are still based on very incomplete technical analysis in what appears as speculative risk management under the guises of national security interest (get energy at all costs). **There are some risks whose consequences are so great that the risks should never be considered, especially when the laws of physics are ignored (a careful read of the Sandia LNG incomplete report will help illustrate this point).**

For those who may not be familiar with this LNG siting deception effort, **FERC has a long history, especially these past 6 years, of making decisions regarding LNG sites on less than complete or balanced engineering analysis.** I am still waiting for the report, including color photos and metallurgical analysis, of the Skikda failure event to go public. Sorry folks but I don't take anyone's word about technical issues when a large segment of a city or a whole lot of citizens can disappear from such very poor siting standards for unique and complex energy systems. Just another example of an agency operating with very low checks and balances, too much secrecy, no real independent public review, and very poor technical safety siting standards.

I think many of the states are going to take special exception to FERC's comments in the article about how the states have so many rights concerning LNG siting following the Energy Act of 2005. To save some

time, might want to start with asking California as I am sure there will be real disagreement in Congressional last minute law making monkey business land.

And let us not lose site of one of the major factors driving this gold rush attitude in blanketing LNG applications along our coastlines, the **Hackberry decision. Basically this FERC creative loophole interpretation classified LNG marine receiving facilities as “production facilities” permitting an LNG applicant to apply for eminent domain as a non common carrier, essentially allowing a private enterprise to garner all the gold.**

This essentially eliminates competition associated with common carrier transportation facilities access or status while forcing company will on an uninformed public. So much for that “free market” noise.

I would suggest that the new Congress, one of two checks on FERC (the other is the U.S. Supreme Court) approach LNG siting on two fronts: 1) development of a regional approach to insure proper balance in meeting possible natural gas energy needs, and 2) clarify into law truly effective siting safety standards for marine LNG receiving facilities. Forget all that FERC noise about site specific considerations as given the size of these LNG ship potential impact zones for these unique facilities does one think a few hundred feet either way is going to really matter?

One can always tell the weakness in a particular argument by the amount of spin attempting to deceive or hide truly neutral technical balanced public discussions. Regarding FERC siting of marine LNG receiving facilities, from where I stand there currently is still just too much spin in deception land. I’ll leave it up to the reader to form their own opinion on this matter. **FERC on this subject continues to demonstrate no credibility and zero confidence that they know what they are doing or talking about on this siting matter. I guess we can always do what happen to New Orleans when the risk callers are proven wrong – Whoops!** Maybe it be time for Congress to get properly involved to correct the malfeasance associated with the Energy Act and LNG siting, before we learn the hard way.

Richard Kuprewicz, Accufacts Inc.

Gas Plant: Decision Ahead

Federal Regulator Says Agency's Review Is Limited To Safety

By DAVID FUNKHOUSER
Courant Staff Writer

<http://www.courant.com/news/>

December 4 2006

As chairman of the Federal Energy Regulatory Commission, Joseph T. Kelliher wants to make a few things clear about his agency's review of a proposed liquefied natural gas terminal in Long Island Sound.

"I think our general approach on LNG isn't very widely understood," Kelliher said.

That comment goes to the heart of the war environmentalists and others are fighting over the proposal from Broadwater Energy to moor the gas plant, a vessel four football fields long, about 9 miles off long Island and 11 miles from Branford.

The Courant sat down with Kelliher in his Washington, D.C., office recently to talk about Broadwater and his agency's recent draft environmental impact statement on the project. That statement has drawn a harsh response from the project's opponents.

Kelliher, 45, a white-haired yet boyish-looking lawyer, has spent his career focused on energy issues - **first as a lobbyist, then as a congressional counsel and a policy adviser in the current Bush administration, where he helped develop the national energy policy.**

His agency has authority over several aspects of the nation's energy infrastructure, including where it might be appropriate - and safe - to build terminals for importing liquefied natural gas - the super-cooled and condensed form of natural gas that makes it easier to ship.

The five-member commission is likely to vote on Broadwater's proposal next year.

Kelliher first emphasized that **the agency will make its decision based on safety and not on need.**

"There seems to be a perception on the outside that we are actually balancing need vs. safety," he said. "That's completely untrue. ... When the commission looks at an LNG facility, we are not an economic

regulator, we are a safety regulator, pure and simple."

Nonetheless, FERC's environmental report and other agency literature make clear that the agency believes such projects are needed, especially in the Northeast. Energy demand in the region is rising faster than generation capacity and the ability of the infrastructure to deliver that power.

Natural gas, a relatively clean fuel, provides nearly a quarter of the energy consumed in the United States. **While most of our natural gas comes from U.S. and Canadian sources, domestic production has peaked, and the Department of Energy projects the supply will not keep pace with our consumption.** Imported liquefied natural gas will be crucial to meeting growing demand, energy analysts say.

FERC has in recent years approved 16 new or expanded liquefied natural gas facilities from Fall River, Mass., to Corpus Christi, Texas. **Canadian authorities have approved three facilities, two on the East Coast.** Dozens of other projects are in the works.

Kelliher pointed out that FERC earlier this year rejected a liquefied natural gas project in Providence. "It obviously was needed," he said. "But **it didn't meet our safety standards.**" (1)

FERC has set 79 conditions it says Broadwater will have to meet for the project to go ahead - including measures to ensure safety and reduce environmental impact. If those are met, FERC says, Broadwater's facility can be operated safely and with minimal impact.

The plant would be permanently moored to a tower embedded in the sea floor. Two or three tankers a week would offload liquefied natural gas, which would be heated and pumped into a new 25-mile pipeline plugged into the Iroquois natural gas pipe that runs across the Sound between Connecticut and New York.

Broadwater's opponents have declared FERC's environmental report "fiction."

"FERC couldn't find one small problem with this facility," said Adrienne Esposito, executive director of the Citizens Campaign for the Environment in New York. **"So to me, clearly FERC is simply a cheerleader for natural gas infrastructure at any cost, and that's what this [report] reflects."**

Groups such as the Citizens Campaign and the Connecticut Fund for the Environment have 60 days to comment on the report, which came out Nov. 17 on a timetable set by FERC. The agency will hold several public meetings, probably in January. After that, the agency will prepare a final environmental impact statement and bring the matter to a vote.

Esposito said her group would like more time to digest the report. State Sen. Len Fasano, R-North Haven, co-chairman of Connecticut's Long Island Sound LNG Task Force, said **his panel would ask FERC to extend the comment period to the end of March.**

Broadwater's opponents have been critical of the Energy Policy Act of 2005, which they say expanded FERC's authority at the expense of the states.

That, Kelliher said, is another misperception. The law did give FERC the authority to approve the siting of liquefied natural gas terminals. But, he said, "the state role in reviewing LNG import facilities is undiminished. ... There's more than one decision-maker. If we disapprove a project, it can't be built, but we're not the only body that has to approve an LNG facility."

The Broadwater terminal and its pipeline would sit in New York waters, and that state will have to issue several permits. One is an easement for the use of public land.

Save the Sound and the Long Island communities of Huntington, Brookhaven and East Hampton on Friday called on New York to reject the easement. **They contend that turning over a swath of the Sound for private industrial use sets a bad precedent. And, environmentalists say, Broadwater is a step in the wrong direction after 20 years and at least a billion dollars spent cleaning up the Sound.**

Should any agencies deny Broadwater a permit, the project, which Broadwater would like to start construction on next year, is likely to wind up in federal appeals court.

Some energy analysts project that a couple of liquefied natural gas terminals would fulfill the Northeast's needs. So why approve more?

"FERC authorization doesn't guarantee that a project gets built," Kelliher responded. He said the energy market will determine how many facilities can be supported.

Opponents say a combination of conservation, alternative energy projects and increased efficiency should be able to handle the region's growing demands. Kelliher and the FERC report disagree.

"You need a multi-pronged approach, and conservation has got to be one of those prongs," Kelliher said. But **the impact of conservation is hard to measure, and "you are going to need to assure an adequate supply."**

Kelliher made a final point: There is a connection between energy infrastructure and what we pay for energy.

"I'm not trying to say that all energy infrastructure that's ever proposed should always be built," he said. "But there should be a recognition that there is a balance between those two things - and that **attempts to block all energy development** will have the very predictable and probably inevitable outcome of raising prices." (2)

Contact David K. Funkhouser at dfunkhouser@courant.com.

- (1) L'initiateur Rabaska a toujours soutenu que le rejet du projet de KeySpan à Providence l'a été sur des raisons techniques et non de sécurité.
- (2) Les opposants aux projets de terminaux méthaniers ne rejettent pas du tout «toute forme de développement énergétique», à moins de considérer le combustible fossile, tel le gaz naturel, comme seule forme d'énergie. Quant aux prix, le président de la FERC se protège en qualifiant une hausse de «très prévisible» et «probablement inévitable». Il admet au moins que tout projet ne doit pas toujours être réalisé...

Feysin en France : une des premières grandes catastrophes industrielles de notre époque. Il s'agissait d'un accident d'un dispositif cryogénique : un réservoir de propane liquide.

Rebellyon.info

4 janvier 1966 : Explosion de la raffinerie de Feyzin

Publié jeudi 4 janvier 2007

C'est l'une des premières grandes catastrophes industrielles, tout près de Lyon, à Feyzin, au petit matin du 4 janvier 1966, qui fit 18 morts, dont 11 pompiers, 84 blessés et des dégâts matériels jusqu'à Vienne, à 25 Km de Lyon, endommageant 1475 habitations. A-t-on pris la mesure d'un tel risque technologique majeur ?

Si on était dans le centre ou le sud de Lyon, ce matin-là, vers 7 - 8 heures, on a pu entendre un défilé ininterrompu de sirènes de pompiers pendant un très long moment, présageant un accident très grave, puis peu après l'énorme bruit d'une explosion, suivie d'une deuxième une heure après. Ce n'est que bien plus tard que nous avons pu apprendre à la radio ce qui s'était passé.

La raffinerie Elf de Feyzin, mise en service deux ans auparavant, située à la sortie sud de Lyon, jouxtant l'autoroute du soleil, de laquelle on aperçoit les grandes cheminées, les torchères et les immenses cuves de stockage, a été l'objet d'une violente explosion le 4 janvier 1966 qui endeuilla la région lyonnaise et viennoise.

Ce jour-là, trois opérateurs, vers 6h40 du matin, vont faire un prélèvement d'échantillons de gaz dans une des six cuves sphériques, trois de butane, trois de propane, qui servent à stocker la production de la raffinerie. A la suite d'une fausse manoeuvre, une fuite se produit, et ne peut être colmatée. La nappe de gaz s'étend, et va traverser l'autoroute toute proche, heureusement fermée entre-temps, à l'initiative de CRS et de gendarmes. Malheureusement, un chemin départemental qui permet de rentrer sur l'autoroute n'est pas fermé en temps utile. **Un employé de la raffinerie arrive avec son véhicule, qui sert de détonateur pour enflammer la nappe de gaz. Il décèdera de ses brûlures.** A partir de là, les sphères de gaz s'enflamment et explosent les unes après les autres. Les secours, mal coordonnés, car dépendant de deux départements, l'Isère et le Rhône, interviennent dans le désordre et paient un lourd tribut à la lutte contre les flammes.

On dénombre en effet **18 décès consécutifs à l'explosion de la première sphère** ou

survenus des suites de graves brûlures, parmi lesquels figurent 11 Sapeurs pompiers des Centres de Lyon et de Vienne.

L'essentiel est néanmoins sauvé grâce à la fermeture rapide de l'autoroute, qui avait été mise en service peu de temps auparavant. Tous ceux qui connaissent le site peuvent imaginer l'ampleur de la catastrophe si elle s'était produite avec la circulation que cette autoroute connaît actuellement.

De nos jours, la raffinerie est toujours là, jouxtant l'autoroute. Les services de sécurité ont été rationalisés et mis sous une responsabilité unique, les plans Orsec sont devenus vraiment opérationnels, et la connaissance des techniques de sécurité a fait des progrès considérables. L'explosion a en effet été à l'origine de progrès en médecine, notamment dans les secours aux grands brûlés, et d'avancées en matière de sécurité pour les sapeurs-pompiers et pour l'industrie de raffinage. La prise en compte actuelle des risques industriels à l'échelle de l'agglomération a aussi été traitée.

Mais pouvons-nous être sûrs que la même catastrophe de nos jours pourrait être évitée ? Ne faut-il pas aussi supprimer les départements ?

L'explosion de la raffinerie de Feyzin, le 4 janvier 1966, est considérée comme la première catastrophe industrielle survenue en France. **Ses proportions spectaculaires, la nouveauté du phénomène, l'ampleur d'un traumatisme vécu par les habitants de tout un secteur, confrontés localement à une énorme déflagration et obligés d'évacuer en urgence leurs habitations, ont durablement marqué les esprits.**

Chronologie des événements

Le 4 janvier 1966, 6h40 :

Fuite de gaz sous une sphère de propane : formation d'une nappe gazeuse sur 1,5 m de hauteur se propageant jusqu'à l'autoroute.

35 minutes plus tard : Initiation de l'incendie de la nappe par une voiture circulant sur une route jouxtant l'autoroute.

Inflammation, BLEVE (Boiling Liquid Expanding Vapour Explosion. **Explosion d'une sphère de stockage de gaz liquéfié réchauffée de manière brutale**) après une heure.

55 minutes plus tard : une seconde sphère de propane explose par BLEVE et 3 sphères de butane s'ouvrent (sans BLEVE).

Au final, 11 réservoirs détruits.

Causes

Un aide opérateur manœuvre dans le mauvais ordre 2 vannes de purge d'une sphère de propane de 1200 m³ remplie à 60%. Leur givrage simultané provoque leur blocage et la fuite du propane.

Événement aggravé (givrage de la vanne) par la basse température et la forte humidité ambiante.

Des défauts de conception avaient été observés dans la raffinerie et les consignes de sécurité, mal connues, n'étaient pas respectées le jour de l'accident. Il faut savoir qu'un ouvrier avait eu la main gelée dans une même opération de prélèvement le 6 août 1964 et trois ouvriers avaient été déjà grièvement brûlés lors d'une purge identique le 25 février 1965.

Mauvaise maîtrise du sinistre par les autorités et les pompiers. Cafouillage : le capitaine des sapeurs-pompiers de Vienne ne savait plus qui était en droit de commander lorsque le colonel des sapeurs-pompiers de Lyon est arrivé.

Insuffisance des moyens des sapeurs pompiers de Vienne, les sapeurs-pompiers de Lyon étant mieux équipés pour le faire n'étaient pas administrativement autorisés à le faire.

Conséquences

intervention de 158 sauveteurs, la majorité à proximité de la première sphère qui explose : 18 morts, 84 blessés.

Dégâts matériels jusqu'à Vienne (25 Km de Lyon).

1475 habitations ou construction affectées.

Sanctions pénales et civiles de 1 million de francs prononcées.

De nouvelles mesures de gestion de crise sont mises en place dans l'arrêté ministériel du 4 Septembre 1967 (soit un an et demi après l'accident)

Rédaction de l'annexe hydrocarbures du plan ORSEC qui a fait l'objet de la circulaire du Ministère de l'Intérieur le 7 décembre 1967.

Création d'un code qualité sur l'installation pétrolière par le ministère de l'industrie.

Pour la première fois, la responsabilité du chef d'établissement est reconnue dans la préparation et la lutte contre le sinistre de l'installation (auparavant, il n'était ni responsable, ni chef des secours).

Feyzin, qui faisait partie du département de l'Isère (38) est intégrée au département du Rhône (69), et l'attribution de la surveillance du site est attribuée aux sapeurs-pompiers de Lyon.

Feyzin, une des premières dans une longue liste de catastrophes industrielles

- * 4 janvier 1966 : Explosion dans l'usine pétrochimique de FEYZIN, près de Lyon : Phénomène du "bleve" (explosion de gaz liquéfié sous pression). 18 morts - 84 blessés - Dégâts matériels jusqu'à Vienne (25 Km de Lyon)- 1475 habitations endommagées.
- * 4 février 1971 : Brunswick (Géorgie, Etats-Unis) - 25 morts dans l'explosion dans une usine de produits chimiques.
- * 23 février 1972 : Poznan (Pologne) - 16 morts dans une usine d'amidon.
- * 1974 : Accident de Flixborough (Grande-Bretagne).
- * 20 juillet 1974 : Zaluski (Tchécoslovaquie) - 14 morts dans une usine chimique.
- * 1er juin 1974 : Scunthorpe (Angleterre) - Au moins 50 morts dans une usine de produits chimiques.
- * 10 juillet 1976 : Seveso (Italie) - L'explosion d'un réacteur dans l'usine chimique d'Icmesa (groupe pharmaceutique Roche), près de Milan, fabricant de l'hexachlorophène provoque un nuage de dioxine, substance hautement toxique, qui contamine 1.800 personnes mais ne provoque pas de décès immédiat.
- * 19 nov 1984 : Mexico - 452 morts à la suite d'explosions dans des installations de gaz liquide à San Juanico (banlieue nord de la capitale) qui provoquent un nuage toxique.
- * 3 décembre 1984 : BHOPAL (Inde) - Près de 20 000 morts et quelques 100 000 handicapés permanents à la suite d'une fuite de gaz mortels (MIC) dans une usine de pesticides de la firme américaine Union Carbide.
- * 26 avril 1986 : TCHERNOBYL (Ukraine), 31 morts (directs), mais de nombreuses victimes indirectes, au delà des frontières. Aujourd'hui (18 ans après), 80 % des enfants de Biélorussie sont malades à cause de la catastrophe de Tchernobyl.
- * 1986 : Incendie d'un entrepôt de produits chimiques à BALE, avec pollution du Rhin.
- * 1987 : NPK à Nantes : incendie dans un stockage d'engrais tertiaires, qui a conduit à l'évacuation de 30 000 personnes.
- * 1987 : TOURS : Incendie et l'explosion dans une usine chimique qui a conduit à priver d'eau la ville pendant quelques jours.
- * 14 août 1987 : Corée du Sud - Au moins dix morts à la suite d'une explosion dans une décharge de produits chimiques, à l'ouest de Séoul.
- * 9 juillet 1990 : Houston (Etats-Unis) - 40 morts au total à la suite de trois

explosions en neuf mois d'usines chimiques dans la région.

- * 2 novembre 1992 : Explosion à la raffinerie de LA MÈDE (étang de Berre, près de Marseille), 6 morts et dommages matériels étendus
- * 26 nov 1993 : Chine - 61 morts dans une explosion de produits chimiques dans la province de Yunan.
- * 1995 : France - St Herblain : Explosion dans un dépôt de liquides pétroliers.
- * 23 juin 1995 : Zemun (Serbie) - 10 morts dans l'usine de produits chimiques Grmec.
- * 31 mai 1996 : Bombay (Inde) - Une explosion détruit une usine de produits chimiques à Pune (ouest de l'Inde) faisant onze morts.
- * 1997 : BLAYE (Gironde) - Explosion dans le silo de stockage de céréales : 11 morts et 1 blessé et des dégâts étendus.
- * 1998 : Incendie dans le Tunnel sous la Manche.
- * 1998 : Explosion confinée de gaz dans une installation chimique reliée à une torchère. MAZINGARBE (Pas-de-Calais) : fuite d'ammoniac de trente tonnes survenue lors d'un déchargement de wagon.
- * 1999 : Incendie dans le Tunnel du Mont Blanc.
- * 21 septembre 2001 : Explosion de l'usine de Nitrate d'Ammonium AZF à TOULOUSE : 29 morts, 450 blessés, dégâts matériels considérables.
- * 9 août 2004 : Mihama (Japon), jet de vapeur, fuites dans une centrale nucléaire - 4 morts et au moins 7 blessés.

Un livre est sorti l'an dernier : *Feyzin, mémoires d'une catastrophe*
Étude de Nicolas Kacou-Dingui & Amina Kandil, de l'école des mines de Nancy

Failles de sécurité importantes dans l'Est-du-Québec

Mise à jour le lundi 28 novembre 2005, 9 h 29 .

Radio-Canada Nouvelles Est

Selon une source du *Journal de Québec*, les ports de l'Est-du-Québec seraient de véritables passoires pour les marchandises illégales et les passagers clandestins.

Le quotidien a publié vendredi une série d'articles sur les failles de sécurité du transport maritime du fleuve Saint-Laurent.

Selon une source anonyme citée par le *Journal*, seulement 1 % des 500 bateaux de marchandises qui circulent sur le Saint-Laurent sont l'objet de fouilles sérieuses et il n'y a pratiquement aucun contrôle pour vérifier l'identité des passagers qui débarquent des navires, notamment à Sept-Îles et à Gros-Cacouna.

Selon le quotidien, cinq marins turcs auraient débarqué dans le port de Québec il y a un an sans qu'on ne les revoie jamais. Une information non corroborée par la direction du port.

Les guerres de l'énergie et des ressources ne seront pas qu'au Moyen-Orient ou en Asie, du moins si on en croit le précédent du bois d'oeuvre entre le Canada et son voisin américain. On parle beaucoup des possibles affrontements sur l'eau, mais ceux sur le gaz naturel pourraient être plus proches qu'on ne le croit. En permettant le plus de terminaux possibles sur son territoire, le Canada et ses décideurs économiques veulent probablement éviter les déclencheurs d'une telle bataille...

Published on 1 Aug 2006 by *Resource Insights*.
Archived on 1 Aug 2006 on EnergyBulletin.net

The coming "war" with Canada

by Kurt Cobb

As I returned recently from a vacation in Canada, I took a detour along the Canadian side of the St. Clair River which divides Ontario from Michigan as it flows from Lake Huron into Lake St. Clair. The sunny, placid scene of sailboats, swimmers and the occasional motorboat or barge bore no witness to the fact that this was a border between two countries. As I passed two vast oil refineries I was reminded that I was indeed in Canada, a country so rich in oil and natural gas that the docks next to these refineries were likely used to ship refined products to the United States which is now in perpetual need of them.

From such a vantage point **it is hard to imagine that this apparently benign unconcern for where the United States ends and Canada begins might suddenly be transformed into a pitched battle of words and deeds.** And yet, that is almost certainly where these two old friends are headed.

Behind this looming turnabout is one very troubling development: Natural gas production in North America has leveled off. Only warm winter weather has so far delivered the continent from a severe crisis. The glib confidence with which Wall Street analysts touted the buildup in gas storage earlier this year betrays their ignorance about how tenuous those supplies really are. Underground gas storage currently stands at 2.8 trillion cubic feet (tcf) and could reach well over 3 tcf if the current hot weather abates and reduces demand

for gas used to produce electricity. But those figures amount to a very small buffer when compared to the approximately 26.5 tcf consumed each year across North America. In fact, it is so small that the U. S. Federal Energy Regulatory Commission is taking steps to encourage an expansion of gas storage in order to reduce the volatility in prices.

But you can't store what you don't produce. Even though gas drilling rig counts in the United States have steadily advanced from an average of under 500 in 1999 to 1,376 in June, production remains flat. This has led to high volatility in prices. Since February 2002 prices have risen from a low of a little over \$2 per thousand cubic feet (mcf) to nearly \$15 per mcf last October. Prices have since come down considerably. Even so they are unlikely to stay there if a hurricane again knocks out gas production infrastructure in the Gulf of Mexico or a truly cold winter descends on North America.

But there is something else even more foreboding about the leveling off of gas production according to **Douglas Reynolds, a resource economist at the University of Alaska-Fairbanks who has studied the North American gas situation closely. Reynolds predicts that North American production will begin to fall precipitously sometime after 2007.** And, unlike the gradual downslope that the declining production numbers for a depleting oil well or an entire oil-producing nation trace on a graph, Reynolds expects the falloff in North American gas production to resemble a cliff. **When gas wells begin to decline, they decline swiftly and often with little warning.**

Which brings us back to the coming "war" with Canada. **There will be no quick fixes for natural gas shortages in North America. None. Eventually, natural gas from Alaska and the MacKenzie Delta in the Northwest Territories will arrive by pipeline. But that could easily be 10 years from now.** Imports in the form of liquid natural gas (LNG) could offer some relief, but the timelines for building the necessary special purpose ports and ships could be equally long.

So, what happens in the meantime should Reynolds' prediction turn out to be true? The answer will be puzzling to many Canadians. The North American Free Trade Agreement (NAFTA) obliges Canada to share its oil and gas in the same proportion as it has in the previous 36 months prior to any restrictions placed on output. The specific reference is Article 605. In other words, **the United States is supposed to get its share no matter what.** In 2005 the U. S. imported

almost 3.7 tcf of natural gas from Canada which produced about 6.5 tcf in the same year. That's **more than half Canada's production.**

(Perhaps even more galling to the Canadian public will be the fact that the other party to NAFTA, Mexico, retained control over its own hydrocarbon resources in the very same chapter of the agreement in which Canadian negotiators gave away Canada's energy sovereignty.)

But what if the Canadian government faced a situation in which its own citizens were freezing in their homes for lack of heat? Would it simply let natural gas flow south because of a trade agreement? And, what if it became apparent that the situation wasn't temporary, but rather a long-term problem?

Any party to NAFTA can withdraw from the agreement with six months' written notice. But the urgency of a mid-winter natural gas crisis wouldn't allow for such an orderly retreat. So, if, say, a weak Canadian minority government such as the one currently in power in Ottawa were faced with the wrath of freezing Canadian voters or a nasty row with the United States, which would it choose?

In the past when it suited the United States, the U. S. government simply ignored rulings made by the body that adjudicates trade disputes under NAFTA. Specifically, a long-running dispute over the export of softwood lumber to the United States from Canada had both parties hot under the collar. The dispute has since been settled. **If this rather minor dispute had both parties this agitated for this long, how much more will they be agitated by a natural gas crisis?**

I seriously doubt that the Canadian government would ever risk an actual military confrontation with the United States over energy, a confrontation that it could not win. But, what would it do short of that? And **what would the United States do short of military action when its own people are threatened with freezing?**

We can all hope for lovely cooperation. But if the past is any indication, I fear we Americans could be in for what is about as close to a war as we will ever get with Canada.

You might expect that under the circumstances Canada and the United States would be invoking emergency conservation measures for natural gas. But instead both governments fiddle while the continent's remaining and perilously tight natural gas supplies continue to burn. They thereby risk that one day in the not-too-distant future

their relationship may turn as icy as the St. Clair River during the depths of a frigid winter.

L'article 605 de l'ALÉNA et les exportations canadiennes de gaz : un extrait des correspondances d'un site sur l'énergie.

Theoildrum.com

Blog

James Howard Kunstler wrote: "the first of many political repercussions will occur when the Canadians decide that they have had enough of NAFTA policy, which requires them to sell the US as much gas as we want to buy."

This statement, like other of your ramblings on international matters, is incorrect. **Canada, under NAFTA, could restrict natural gas exports to the US, but would have to curtail domestic supply to do so.**

Here is the relevant article from NAFTA:

Article 605: Other Export Measures

Subject to Annex 605, a Party may adopt or maintain a restriction otherwise justified under Article XI:2(a) or XX(g), (i) or (j) of the GATT with respect to the export of an energy or basic petrochemical good to the territory of another Party, only if:

(a) the restriction does not reduce the proportion of the total export shipments of the specific energy or basic petrochemical good made available to that other Party relative to the total supply of that good of the Party maintaining the restriction as compared to the proportion prevailing in the most recent 36-month period for which data are available prior to the imposition of the measure, or in such other representative period on which the Parties may agree;

[Parent]

Jerome a Paris on Monday November 27, 2006 at 3:07 PM EST

Contracts are one thing, but they mean little if you effectively declare war on your neighbor. The point is that Canada has the physical ability to cut off US supplies, just like Russia can do the same to Europe, even if its contracts say it is not allowed to.

[Parent]

Valuethinker on Tuesday November 28, 2006 at 3:49 AM EST

But politically Canada never would.

The fault lines run North to South, not East to West.

Alberta feels a greater obligation to its US neighbours, than to Ontario.

'Let those Eastern Bastards freeze in the Dark' was a bumper sticker only half in gest in the early 80s.

Also the National Energy Policy (NEP) under Trudeau (scholars remembered the Soviets had something similar in the early 1920s called the NEP) did

huge damage politically. It's still a big issue in Alberta, 25 years later-- it's been brought up more than once in the recent Conservative leadership campaign in Alberta (Alberta is a de facto 1 party state so the 'election' for the Legislative Assembly is irrelevant, it is the Tory leadership race which counts).

Canada will not cut off energy supplies to the US. Ontario (and Quebec) will be in the same boat as New York and New England. But Quebec has hydro power.

NAFTA itself is sacrosanct: to keep ticking over economically, Ontario needs access to American automotive markets for its car plants. After 9-11, when the US froze the border for a week, there were nearly layoffs in Ontario-- it's simply a stage in the de-aggregated vehicle supply chain of the big manufacturers, shipping partly assembled cars pack and forth across the border.