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# Fuel Focus

*Understanding Gasoline Markets in Canada  
and Economic Drivers Influencing Prices*

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## National Overview

### Average Canadian Pump Prices at a Three-Month High

Compared to the previous week, overall Canadian retail pump prices rose by less than 1 cent per litre to a three-month high of 86 cents per litre on February 10, 2009. Canadian retail prices reflect the upward pressure from North American wholesale prices. However, compared to the same period last year, pump prices are 18 cents per litre lower.

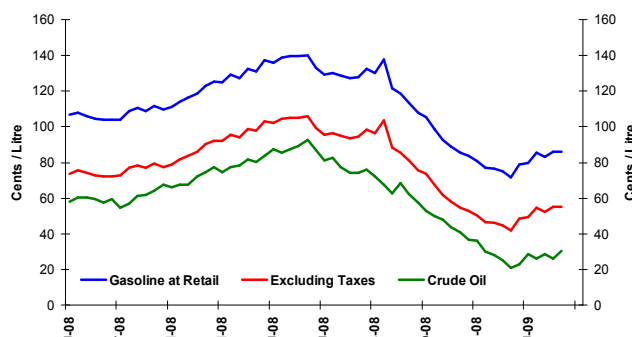
The higher wholesale prices have resulted in higher refining margins and have firmed-up retail pump prices across North American markets.

Diesel fuel decreased 2 cents per litre to 89 cents per litre compared to last week. Furnace oil prices also decreased 1 cent per litre from the previous week and averaged 77 cents per litre.

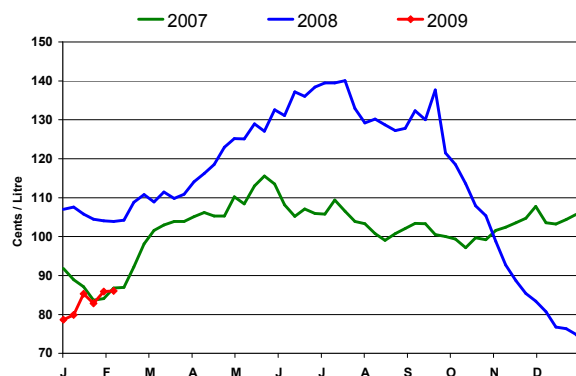
### Recent Developments

- **Slight Increase in Canadian Crude Oil Production:** Production of crude oil and equivalent hydrocarbons increased slightly to 13.5 million cubic metres in November 2008, compared to the same period in 2007. Deliveries to exports markets rose 10% to 9.8 million cubic metres, while imports increased 3% to reach 3.9 million cubic metres. (Statistics Canada, The Daily, <http://www.statcan.gc.ca/daily-quotidien/090130/dq090130b-eng.htm>)
- **Increase in P.E.I Gasoline Tax:** Effective February 1, 2009, the Prince Edward Island tax on gasoline rose by 1.4 cents per litre to 14.6 cents per litre while the diesel oil tax rate increased by 0.4 cents per litre to 19.6 cents per litre. (Government of Prince Edward Island, [www.taxandland.pe.ca](http://www.taxandland.pe.ca))
- **Refiner's Strategy to Strengthen Earnings in 2009:** Several U.S. refiners are calling for the need to curb their gasoline production as a strategy to remain profitable given lackluster gasoline demand and uncertain economic conditions in the U.S. The refiner Valero announced recently that instead of running portions of its Texas City refinery during scheduled maintenance it was shutting it down entirely this quarter because of the high spare capacity compared to the current demand. However, other refiners' views are that while curtailing gasoline production is one means to keep earnings afloat, another is to increase crude oil flexibility by improving the production of other petroleum products with more profitable refining margins. (Octane Week, February 9, 2009)

**Figure 1: Crude Oil and Regular Gasoline Price Comparison (National Average)**



**Figure 2: Weekly Regular Gasoline Prices**



**Changes in Fuel Prices**

¢/L	Week of:	Change from:	
	2009-02-10	Previous Week	Last Year
Gasoline	86.1	+0.2	-18.1
Diesel	88.6	-1.7	-19.1
Furnace Oil	76.9	-1.2	-23.7

Source: NRCan

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## Retail Gasoline Overview

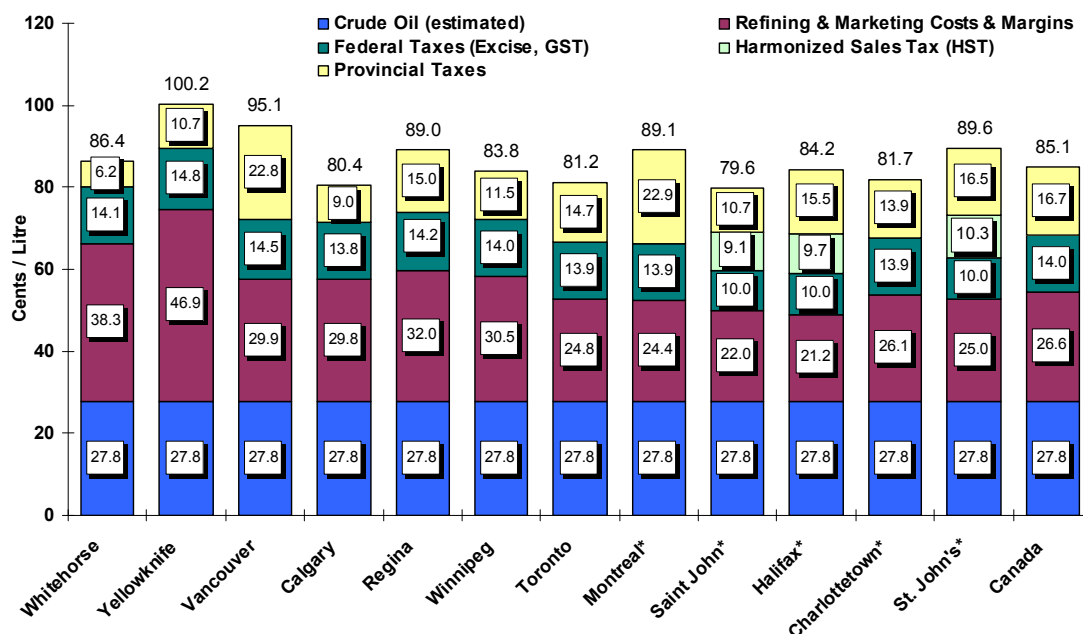
The average Canadian pump price in selected cities for the **four-week average** ending February 10, 2009, was 85 cents per litre, an increase of 3 cents per litre from the last report on January 30, 2009. This represents a 19 cent per litre decrease compared to the same period in 2008.

The **four-week average** crude oil price increased by more than 1 cent per litre to 28 cents per litre compared to two weeks ago. Crude oil prices are also 30 cents per litre lower than at the same period last year.

Retail gasoline prices in most Western centres increased in the range of 4 to 5 cents per litre when compared to those in the previous report two weeks ago. Prices also increased in Eastern centres in the range of 2 to 6 cents per litre.

Overall refining and marketing costs and margins increased by 2 cents per litre from the last report on January 30, 2009, and are 12 cents per litre higher than last year at the same time.

**Figure 3: Regular Gasoline Pump Prices in Selected Cities  
Four-Week Average (January 20 to February 10, 2009)**



Source: NRCan

\* Regulated Markets

### Why are Pump Prices Firming-Up While Crude Oil Markets Post Only Modest Gains?

Crude oil and gasoline markets can sometimes move in opposite directions because there are a number of factors that can affect pump prices, such as gasoline inventory levels, local supply/demand balances. Local market conditions can have a considerable impact on short-term wholesale prices of gasoline because it cannot be easily substituted when demand goes up, especially in the short term. These factors can sometimes work in conjunction with oil price changes but at other times they can mitigate or even reverse that impact. Canada has a dual market, with refiners in the West using domestic crude oil priced at West Texas Intermediate (WTI) parity, while refiners in Eastern Canada rely mostly on imports, which are priced against the North Sea Brent crude which is lighter and sweeter (less sulphur), and is the benchmark price for European markets and products.

With the recent (and rapid) decline in crude oil prices, one of the main reasons consumers have not seen similar declines at the pump has been the value of the Canadian dollar against that of the U.S. Prices for crude oil are set in international markets and based in American dollars. As crude oil is valued in U.S. dollars, the relative value of the Canadian dollar has a significant impact on prices that consumers see for petroleum products such as gasoline and heating fuel oil. The recent declines in our dollar have reversed the situation. As more Canadian dollars are needed to purchase goods valued in U.S. currency, Canadians have not been able to fully benefit from the falling crude oil prices.





## Wholesale Gasoline Prices

Wholesale gasoline prices continued to increase in all centres for the **week of February 5, 2009**, compared to the previous week. Overall, prices rose by 1 to 3 cents per litre.

Compared to the previous week, increases in wholesale gasoline prices in the Eastern markets of both Canada and the United States ranged from 1 to 2 cents per litre and ended the period in the 44 to 47 cents per litre range.

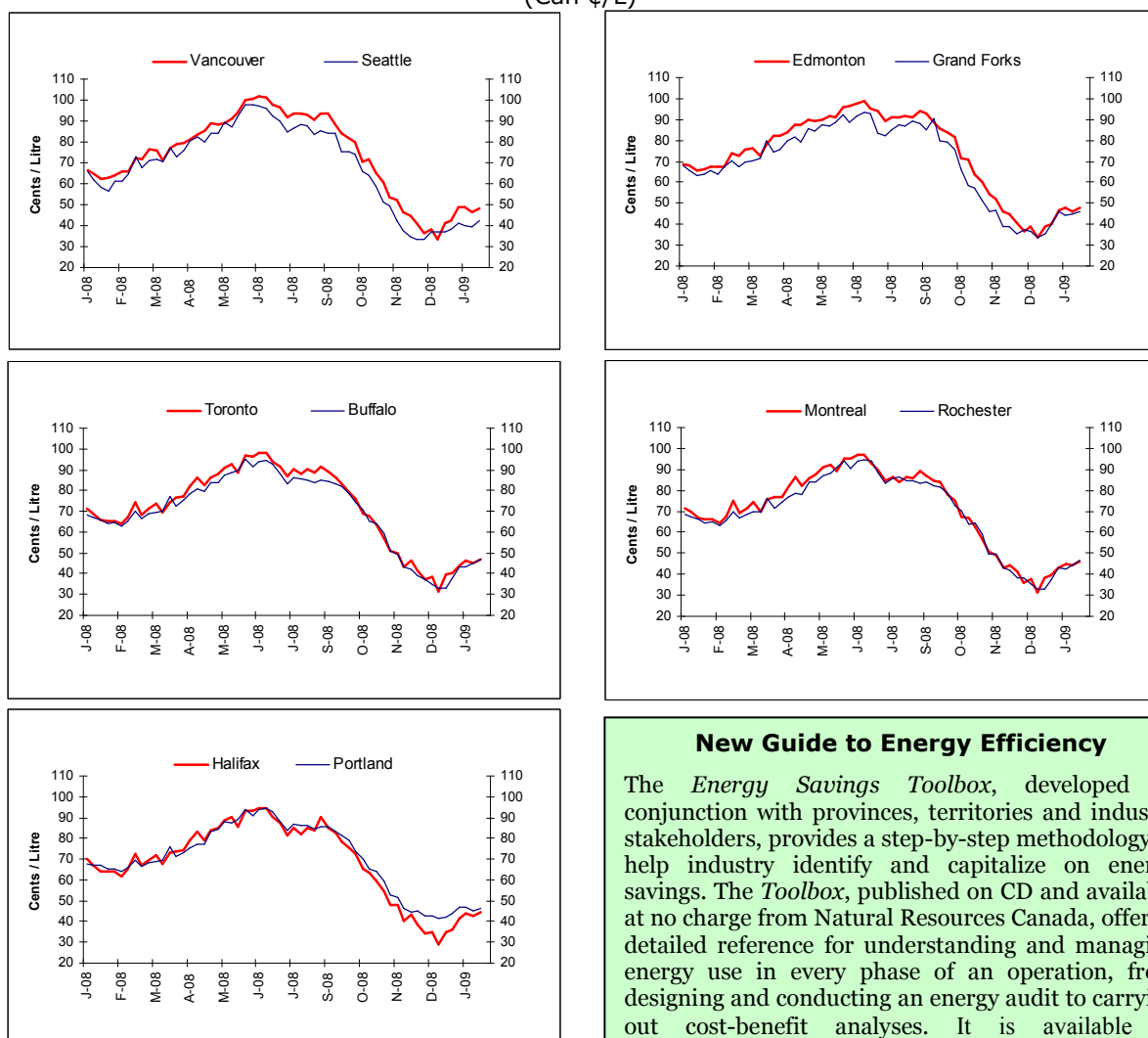
Wholesale gasoline price increases in Western centres ranged from 1 to 3 cents per litre and ended the period between 42 and 48 cents per litre. Most noticeably in Vancouver—compared to Seattle—the price gap

widened in Vancouver reaching 6 cents per litre as a result of supply tightness mainly due to planned refinery maintenance in Western Canada.

In the last four weeks, wholesale prices in both Canadian and American selected centres have risen in the range of 3 and 9 cents per litre.

The North-American refining industry is entering the seasonal refinery maintenance phase which tends to constrict supply of refined products. With the approach of the summer driving season, the U.S. typically relies on imports from Europe to balance its gasoline market. In order to attract imports, wholesale prices for gasoline in the U.S. tend to trade upward.

**Figure 4: Wholesale Gasoline Prices**  
Rack Terminals Prices for Selected Canadian and American Cities Ending February 5, 2009  
(Can ¢/L)



Sources: NRCan, Bloomberg Oil Buyers Guide

### New Guide to Energy Efficiency

The *Energy Savings Toolbox*, developed in conjunction with provinces, territories and industry stakeholders, provides a step-by-step methodology to help industry identify and capitalize on energy savings. The *Toolbox*, published on CD and available at no charge from Natural Resources Canada, offers a detailed reference for understanding and managing energy use in every phase of an operation, from designing and conducting an energy audit to carrying out cost-benefit analyses. It is available at <http://oee.nrcan.gc.ca/publications/infosource/pub/cipec/energy-audit-manual-and-tool.pdf>.





## Refining and Marketing Margins

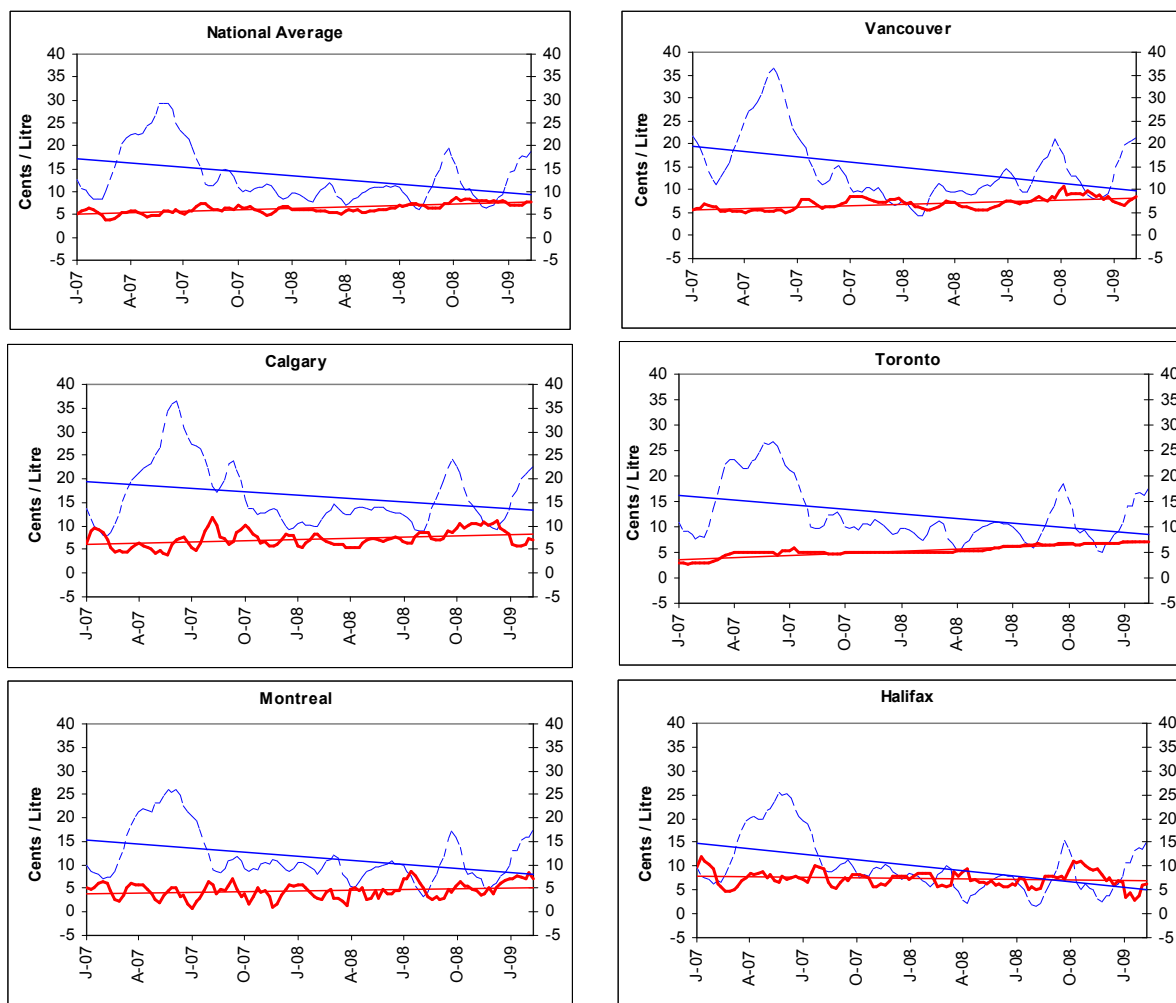
**Four-week rolling averages** are used to illustrate the refining and marketing margins for gasoline in Figure 5 for the period ending February 10, 2009.

Refining margins have been showing some gains recently which is indicative of a tightening in supplies. These margins have increased in all selected centres which signify that wholesale gasoline prices have been increasing more promptly than crude oil prices.

As we near the spring season, the demand for gasoline is expected to increase despite the slowdown in the economy. As a result, refiners will be attempting to balance the supply of distillate (heating oil and diesel) while converting their operations to produce more gasoline in readiness for the driving season.

As seen in previous years, this situation can create a temporary tightening of supply and an upward pressure on refining margins. Ultimately, the higher margins are reflected in the pump price.

**Figure 5: Refining and Marketing Margins**  
Four-Week Rolling Average Ending February 10, 2009  
----- Refining Margin      — Marketing Margin



Source: NRCan





## Crude Oil Overview

### Slight Increase in Overall Crude Oil Prices Partly Offset by Lower WTI

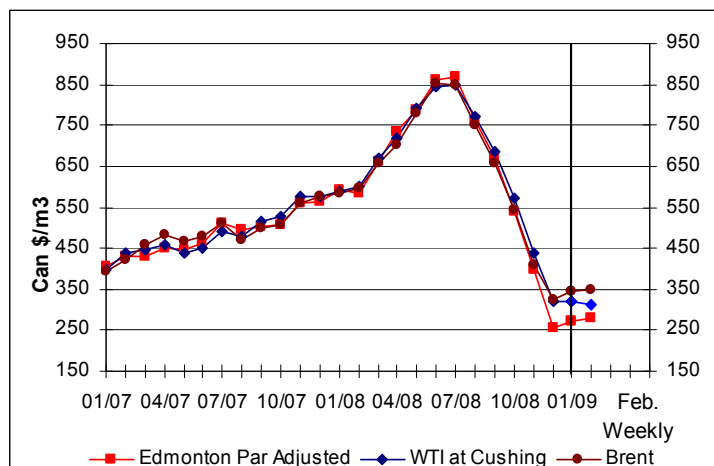
For the week ending February 6, 2009, crude oil prices averaged between \$280/m<sup>3</sup> and \$349/m<sup>3</sup> (\$US36 to \$US45 per barrel).

After months of decline—July to December 2008—the average crude oil prices for the following three benchmark crude oil types increased by \$10/m<sup>3</sup> in January 2009 compared to December 2008. Edmonton Par prices have increased but continue to trade below Brent and WTI.

Overall, U.S. crude oil inventories remain well above the 5-year average range which further contributes to the steadiness in world crude oil price fluctuations. The downturn in economic activities is still forestalling any rally in crude oil prices, but market demand may be spurred by economic stimulus plans worldwide.

Indeed, a recent International Monetary Fund forecast indicates that the proposed economic stimulus plans among the world's 20 largest and emerging economies may encourage economic growth by as much as 1.3%.

Figure 6: Crude Oil Price Comparisons



#### U.S. Energy Forecast

According to the February 10, 2009, U.S. Energy Information Administration's *Short-Term Energy Outlook*, despite two downward revisions in production targets by OPEC within the past few months, the worsening global economy and a weak oil consumption outlook are keeping the world oil market well supplied.

Lower global oil demand and rising surplus production capacity through at least mid-year 2009 reduce the possibility for a strong and sustained rebound in oil prices over that period. OPEC is scheduled to meet in Vienna on March 15, which could lead to another production cut to mitigate some of the slack in the world oil market. However, near-month oil prices will likely be driven primarily by the global economy. Global real gross domestic is assumed to decline by 0.1% in 2009 and rise by 3% in 2010, versus the previous month's assessment of 0.6% growth in global real gross domestic product in 2009 and 3% growth in 2010.

World oil consumption is projected to fall by 1.2 million bbl/d in 2009, representing an additional decline of 400,000 bbl/d from the January 2009 *Outlook*. World oil consumption is expected to rebound in 2010 and grow by more than 1.2 million bbl/d, due to an expected recovery in the global economy.

Source: EIA, *Short-Term Energy Outlook*, February 2009, <http://www.eia.doe.gov/emeu/steo/pub/contents.html>

#### Changes in Crude Oil Prices

Crude Oil Types	Week Ending: 2009-02-06		Change From:			
			Previous Week		Last Year	
	\$Can/ m <sup>3</sup>	\$US/ bbl	\$Can/ m <sup>3</sup>	\$US/ bbl	\$Can/ m <sup>3</sup>	\$US/ bbl
Edmonton Par	279.66	36.03	+11.48	+1.17	-269.27	-50.82
WTI	314.37	40.50	-12.70	-2.01	-247.15	-48.59
Brent	349.01	44.96	+8.52	+0.71	-216.03	-44.68

Source: NRCan





## Strategy for Canadian Refining and Oil Security

In recent years the Canadian petroleum product market has become increasingly vulnerable to supply disruptions. Canadian refineries are operating consistently at or near capacity. Demand for petroleum products is growing, despite escalating consumer prices. The events of the last few years have created a market that is significantly different from any in the past. In an attempt to capture the essence of the risks and vulnerabilities in the Canadian context, Natural Resources Canada (NRCan) has prepared a report called *Developing a Strategy for Canadian Refining and Oil Security*.

When work was begun on this report, oil prices were at an all-time high and were breaking new records every day. Oil markets are volatile. And, trying to conduct a static analysis is always a challenge. The recent economic downturn has resulted in significant declines in oil prices and a weakening of the Canadian dollar. The last ten years have seen significant price fluctuations in world oil markets and periods of increased volatility and record-setting prices. During the period January 1998 to December 2007, nominal monthly prices for WTI, the North American marker, ranged from about \$11/bbl to \$95/bbl and averaged just over \$38/bbl. By July 2008, the monthly average had reached \$134/bbl.

Clearly these events will have some influence on where oil markets go in the coming decade. The paper tries to identify the areas that may be affected by this shift in market conditions. However, at this time, it is difficult to know where oil prices will settle and how these prices will affect industry plans.

There are a few market fundamentals that will not change:

- The marginal cost of producing a barrel of oil is much today that it was 10 years ago;
- Oil prices are not likely to return to the \$20/bbl range;
- The era of “cheap” oil is over;
- The world will continue to be reliant on oil for the foreseeable future, particularly in the transportation sector; and
- Demand in emerging economies like China and India will continue to grow, perhaps at a slower rate;
- There is sufficient supply to meet demand through the 2030 period and beyond.

The changing economic conditions do not reduce the vulnerabilities of the Canadian petroleum product supply or make a discussion of security of supply any less relevant. It is, therefore, timely to re-examine oil security of supply issues in the context of today's market realities. In light of these changing market dynamics, governments and industry need to evaluate the vulnerabilities and risks factors associated with the security of supply of petroleum products in Canada.

The full report will soon be available on NRCan's Energy Sector website at: <http://nrcan.gc.ca/eneene/pubpub-eng.php>

