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Fuel Focus

Understanding Gasoline Markets in Canada and Economic Drivers Influencing Prices

Volume 6, Issue 2

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Canada

Copies of this publication may be obtained free of charge from:
Natural Resources Canada
Petroleum Resources Branch
580 Booth Street, 17th Floor
Ottawa, Ontario K1A 0E4
Phone: (613) 992-9612
TTY Service: (613) 996-4397 (Teletype for the hearing-impaired)
Fax (613) 995-1913
Email: prb.drp@nrcan-rncan.gc.ca
Web site: http://nrcan.gc.ca/eneene/focinf-eng.php

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National Overview

Canadian Retail Gasoline Prices Decrease 1 Cent per Litre from Last Week

Canadian retail pump prices, for the week ending February 8, 2011, decreased by 1 cent per litre to reach $1.13 per litre. This represents a 2 cent per litre decline from two weeks ago. Compared to last year at this time, gasoline prices are 14 cents per litre higher.

Overall, retail prices declined despite the upward pressure from higher crude oil prices and North American wholesale gasoline prices.

Diesel fuel prices rose by 1 cent to $1.18 per litre, up 21 cents from the same period last year. Furnace oil prices increased by nearly 1 cent ending at $1.03 per litre, an increase of 13 cents from a year ago.

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

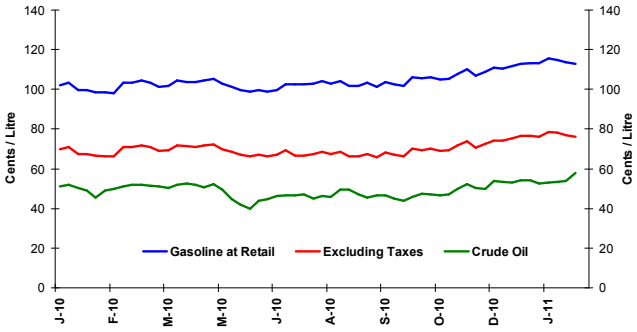
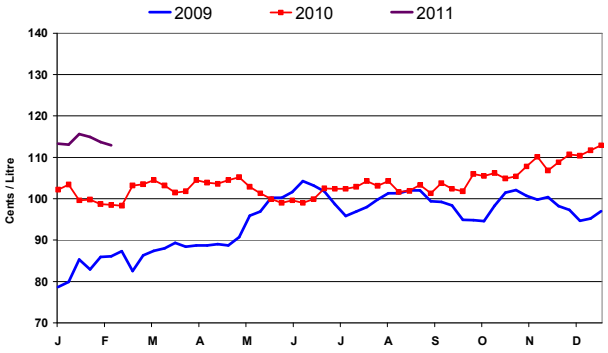


Figure 2: Weekly Regular Gasoline Prices



Recent Developments

- **Domestic Gasoline Sales Up 9% in 2010:** Preliminary data on motor gasoline sales indicate an increase of 9% to 46 billion litres in 2010 compared to the same period in 2009. Diesel fuel sales rose 15% to 30 billion litres, while light fuel oil (furnace oil) increased 2% to 4 billion litres in the same time period. (Source: NRCan and Statistics Canada)
- **U.S. Oil Spills To Cost Enbridge EP $600 Million**: Houston-based Enbridge EP estimated clean-up costs and lost revenues from a pipeline rupture near Chicago in September 2010 reached some $433 million in 2010 and will cost another $162 million post-2010. In all, the roughly $595 million in total costs, which affected the company's U.S. pipelines 6A and 6B on the Lakehead system, do not include fines or penalties that may yet be levied by local, state or federal authorities, although a portion of the funds is expected to be recovered through insurance. (Source: Nickle's Daily Oil Bulletin)
- **Rare Earths Shortage**: Refiners producing motor fuels with fluidized catalytic cracking units (FCCUs) are noting the price runs of rare earth metals used as catalysts. Prices for at least two rare earth elements – lanthanum and cerium – tripled by the end of 2010, driving up refinery FCCU-catalyst costs by 25%. (Source: Global Refining and Fuels Report, January 26, 2011)

Changes in Fuel Prices

	Week of:	Change from:	
¢/L	2011-02-08	Previous Week	Last Year
Gasoline	112.9	-0.8	+14.4
Diesel	118.0	+1.4	+21.1
Furnace Oil	102.5	+0.6	+13.2

Source: NRCan

In this Issue

Retail Gasoline Overview

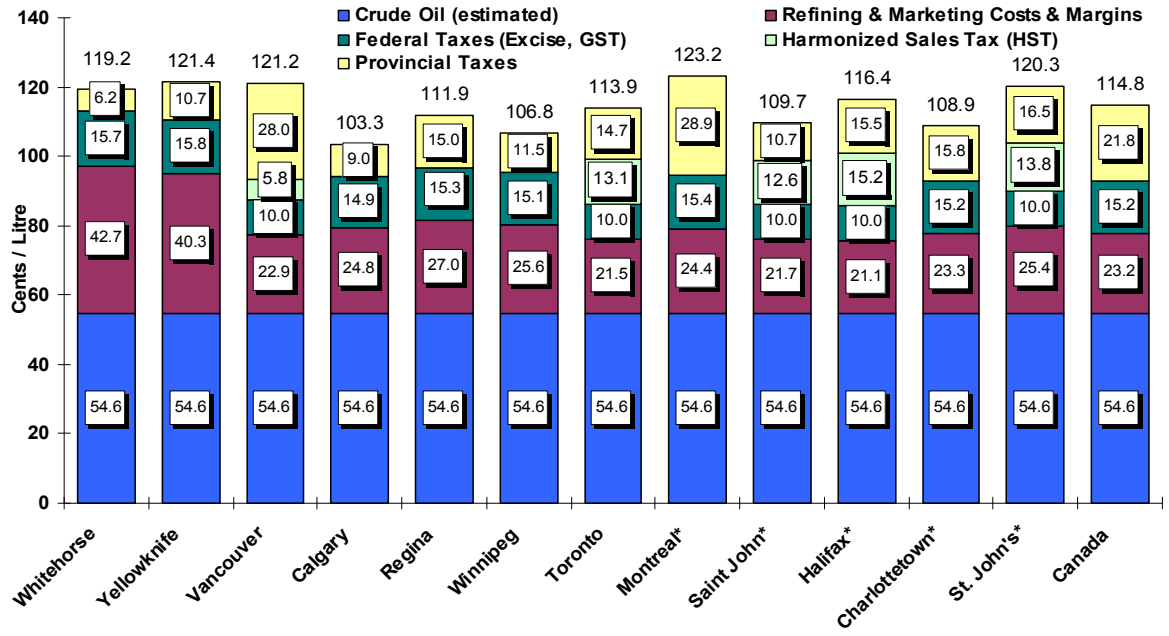
For the period ending February 8, 2011, the **four-week average** regular gasoline pump price in selected cities across Canada was $1.15 per litre, an increase of less than 1 cent per litre compared to the previous report of January 28, 2011. Compared to the same period in 2010, the average Canadian pump price is 16 cents per litre higher.

The **four-week average** crude component was 55 cents per litre, an increase of 1 cent compared to two weeks ago.

Retail gasoline prices in most Western centres increased by 2 cents per litre when compared to the previous report and ranged from $1.03 per litre to $1.21 per litre. Prices in Eastern cities increased by 2 cents per litre and ranged from $1.09 per litre to $1.23 per litre.

At the national level, refining and marketing costs and margins registered a decrease of 1 cent per litre to 23 cents per litre compared to the last report two weeks ago.

Figure 3: Regular Gasoline Pump Prices in Selected Cities
Four-Week Average (January 18 to February 8, 2011)



Source: NRCan

** Regulated Markets*

What Causes Disruptions to the Supply of Oil?

According to IEA experts, the two most common reasons for disruption in the supply of oil are unforeseen technical hitches and the weather – from extreme cold in Russia to seasonal storms in the Gulf of Mexico. While rare, military attacks which target energy infrastructure for political motives, are another significant concern for companies and governments alike. Another rare but potentially significant cause of disruption to the supply of oil is political disputes played out by governments. The IEA was created out of the oil embargo crisis in 1973 when Middle Eastern oil producers stopped selling oil to both the U.S. and The Netherlands following their support for Israel in the Yom-Kippur War.

Local disruption occasionally occurs closer to home. On January 6, 2011, an explosion and subsequent fire at the Horizon Oil Sands site in Canada injured five workers and damaged crucial equipment. A stop-work order was swiftly put in place, halting all production at the facility, which provides around 3% of Canada's total oil production and has the potential to produce 110,000 barrels of synthetic crude oil a day. When a full damage assessment has been completed it will become clearer exactly when production at the site will be up and running, but it is expected to remain at a standstill until at least March 2011.

Source: IEA, http://iea.org/index_info.asp?id=1786

Wholesale Gasoline Prices

For the week **ending February 3, 2011**, wholesale gasoline prices increased in most Canadian and American centres compared to the previous week.

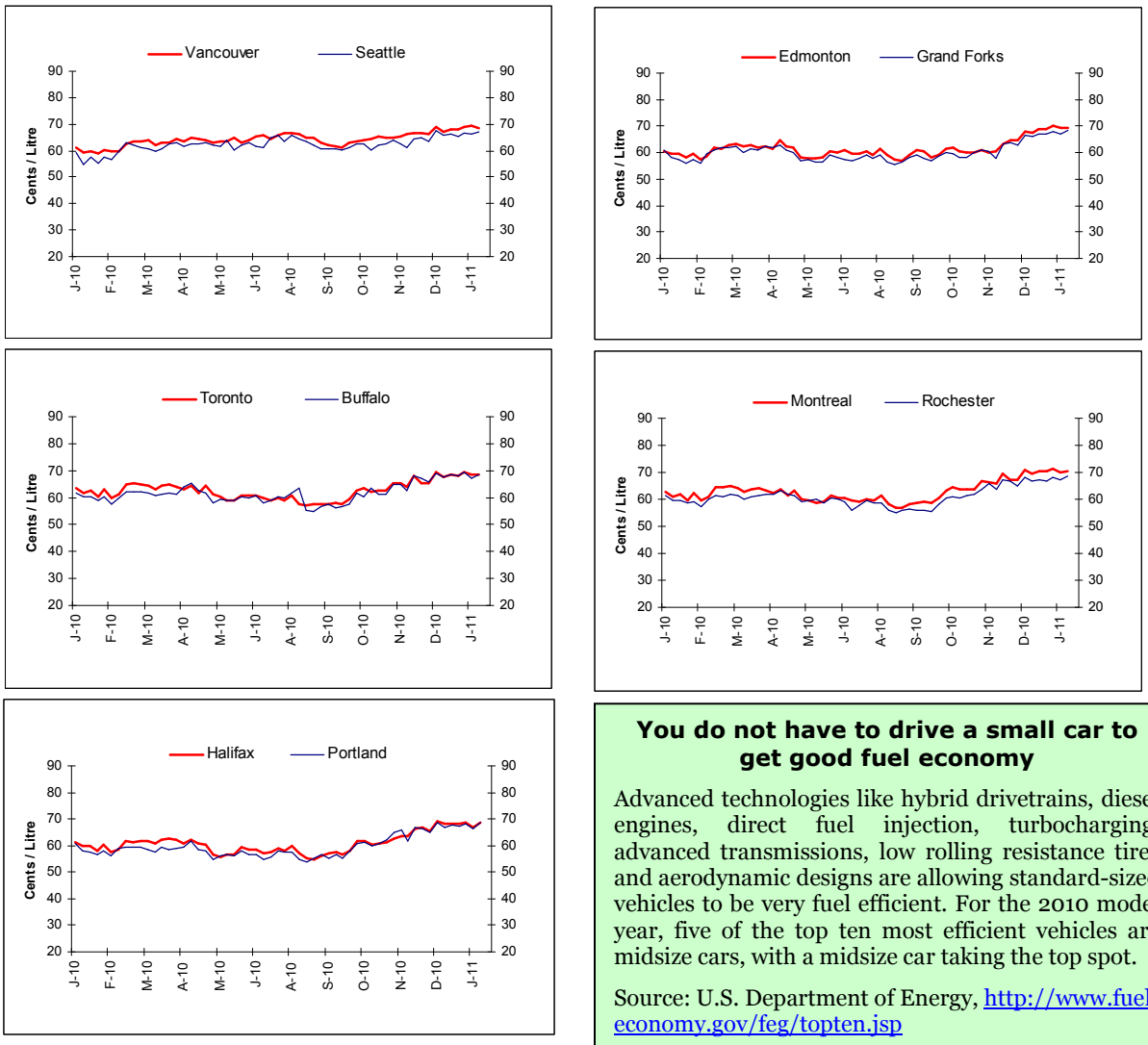
Wholesale gasoline price changes ranged from an increase of less than 1 to more than 2 cents per litre, except for Vancouver where the wholesale price declined by 1 cent per litre. Prices ended in the 67 to 71 cents per litre range.

In the Eastern markets of Canada and the U.S., wholesale gasoline prices, compared to the previous week, registered increases ranging from less than 1 to 2 cents per litre. The period ended in the 68 to 71 cents per litre range.

Wholesale gasoline prices in Western centres fluctuated between an increase of more than 1 cent per litre to a decrease of nearly 1 cent per litre and ended in the range of 67 to 70 cents per litre.

In the **last four weeks**, wholesale prices in most selected Canadian and American centres have increased by around 1 cent per litre.

Figure 4: Wholesale Gasoline Prices
Rack Terminal Prices for Selected Canadian and American Cities Ending February 3, 2011
(Can ¢/L)



Sources: NRCan, Bloomberg Oil Buyers Guide

You do not have to drive a small car to get good fuel economy

Advanced technologies like hybrid drivetrains, diesel engines, direct fuel injection, turbocharging, advanced transmissions, low rolling resistance tires and aerodynamic designs are allowing standard-sized vehicles to be very fuel efficient. For the 2010 model year, five of the top ten most efficient vehicles are midsize cars, with a midsize car taking the top spot.

Source: U.S. Department of Energy, http://www.fueleconomy.gov/feg/topten.jsp

Gasoline Refining and Marketing Margins

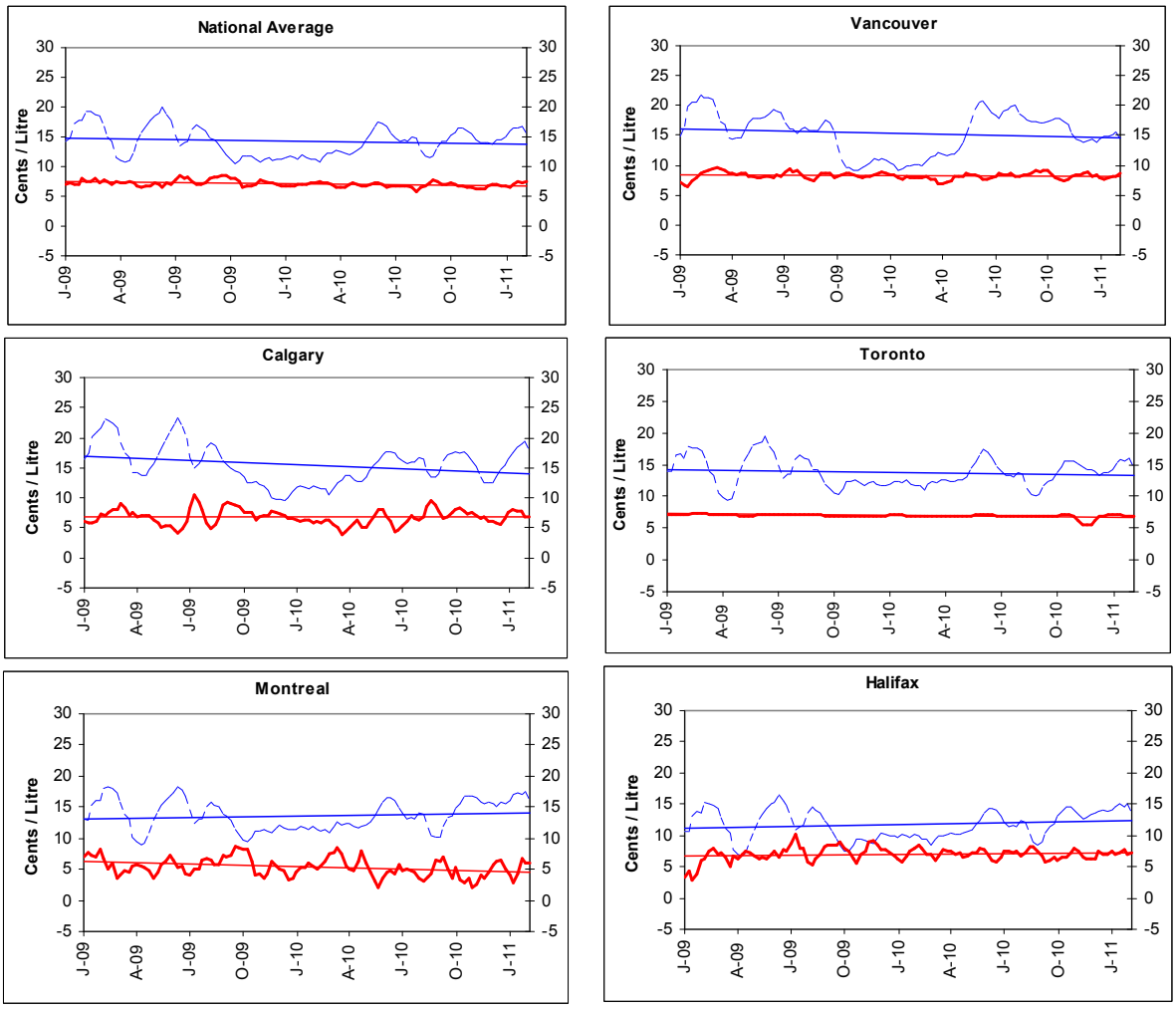
Four-week rolling averages are used for gasoline refining and marketing margins.

Gasoline refining margins have shown a decline of 1 cent per litre, compared to two weeks ago, and ending the week of February 8, 2011, at 15 cents per litre. Strong U.S. gasoline and crude oil inventories have created downward pressure on prices which, in turn, lower refining margins.

Overall, marketing margins hovered around 7 cents per litre. For the five centres, marketing margins ranged from a low of 6 cents per litre in Montreal to a high of nearly 9 cents per litre in Vancouver.

Changes range from a decrease of less than 1 cent per litre to an increase of less than 1 cent per litre compared to two weeks ago.

Figure 5: Gasoline Refining and Marketing Margins
Four-Week Rolling Average Ending February 8, 2011
------- Refining Margin ——— Marketing Margin



Source: NRCan

Crude Oil Overview

WTI and Brent Crude Oil Prices Differential on the Rise

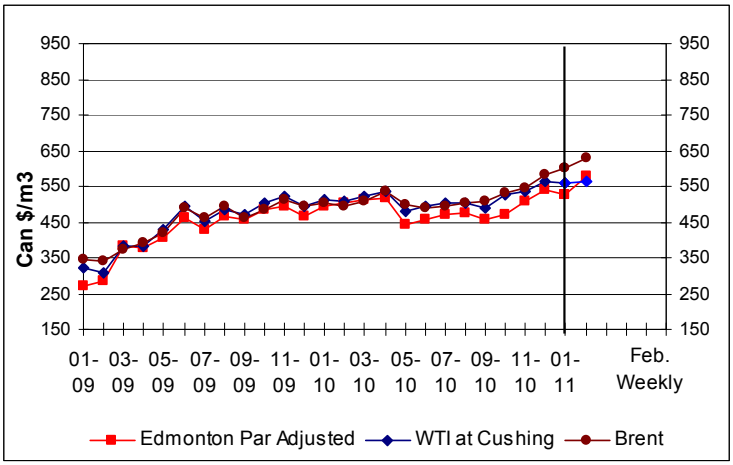
For the week ending February 4, 2011, prices for the three marker crudes averaged between $566/m³ and $629/m³, (US$91 to US$101 per barrel). This is an increase of $22 to $80/m³ (US$4 to US$13 per barrel) from the previous week.

For the last few weeks, the WTI, as the main NYMEX trading benchmark crude, has remained relatively stable despite growing crude oil inventories in the U.S. The average monthly WTI crude oil has been trading at a discount to the European Brent crude oil since August 2010 reflecting high U.S. inventories. Along with rising inventories, disappointing employment data partly diminish the optimism about the economic recovery and moderated the rise of WTI oil price.

World oil market traders are notoriously skittish of the impact of market turmoil. Oil traders and investors worry that political upset in Tunisia and Egypt could fuel similar protests in oil-producing countries possibly affecting supply shipments of crude oil pushing crude oil futures prices upward.

While these fears are receding, concerns over the recent geopolitical tensions and political instability spreading beyond the Egyptian border have the potential to firm-up world crude oil prices.

Figure 6: Crude Oil Price Comparisons



Changes in Crude Oil Prices

Crude Oil Types	Week Ending: 2011-02-04		Change From:			
			Previous Week		Last Year	
	$Can/ m³	$US/ bbl	$Can/ m³	$US/ bbl	$Can/ m³	$US/ bbl
Edmonton Par	579.45	92.81	+80.11	+13.11	+96.40	+20.82
WTI	566.16	90.68	+22.17	+3.85	+65.80	+16.08
Brent	629.04	100.76	+23.40	+4.09	+138.84	+27.68

Source: NRCan

How the Price of Crude Oil is Determined

Crude oil prices are affected by the principles of supply and demand. When the available supply of crude oil exceeds the demand by refiners, prices tend to fall. When demand is growing faster than supply, prices will increase.

Interruptions to crude oil supplies or even the threat of supply problems (such as political events or hurricanes) can force prices upward. Because crude oil can be moved anywhere in the world, suppliers will seek out the place where they can get the highest price. This creates a global market for oil where prices are similar all around the world; the only differences are transportation costs and the quality of the oil.

Crude oil, as the raw material from which refined petroleum products are made will also impact the price of gasoline. Therefore, changes in the cost of crude oil will change the cost to refiners and therefore the price at which the refiners sell their products to marketers and distributors (wholesalers) and, in turn, this increase or decrease in price will be passed on to consumers at the pumps, which is one of the reasons gasoline prices move up and down.

For a more comprehensive view of issues affecting crude oil prices, please consult Natural Resources Canada's study at: http://nrcan.gc.ca/eneene/sources/crubru/pcopdp/index-eng.php

Refinery Maintenance Operations and Petroleum Product Prices

Spring can be a vulnerable time period when supplies from refineries move away from distillate products and switch from winter gasoline to producing summer grade gasoline as demand increases. During that time, prices can be initially depressed as suppliers draw down their winter-grade gasoline, which cannot be used during the summer months. Prices then increase seasonally as the summer-grade gasoline season begins and demand rises towards its summer peak. However, if refineries are having difficulty coming back on line from turnarounds, they may be slow to ramp up production of summer-grade gasoline to meet seasonal demand and price pressure may occur. This was the case in the spring of 2006, when a number of refineries in the U.S. were still trying to recover from the hurricanes in fall 2005.

Because refineries operate around the clock during normal operations, periodic maintenance is required, along with occasional major overhauls. An appropriate analogy might be that of a car owner and the regular maintenance operations needed to ensure reliable transportation. When refiners perform maintenance, they usually need to stop processing hydrocarbons and slow or stop producing finished products. However, the complexity and magnitude of the refinery work far exceeds the car maintenance example.

Refinery outages, which derive from a number of situations, may be planned or unplanned. In all cases, part or all of a refinery is taken out of service. In general, four types of outages are identified: planned turnaround, planned shutdown, unplanned shutdown, and emergency shutdown.

Planned refinery turnarounds are major maintenance or overhaul activities. The frequency of major turnarounds varies by type of unit, but may only be done every 3 to 5 years. Planned turnarounds frequently require 1 to 2 years of planning and preparation, and sometimes longer when major capital equipment changes are required. The actual turnaround may then last about 20 to 60 days. Planned shutdowns are smaller in scope and help bridge the gap between planned turnaround intervals and may be 2 to 6 months in planning and preparation and the outage may last 5 to 15 days before returning the processing unit to normal operation. Emergency shutdowns occur when a unit or entire refinery must be brought down immediately without warning such as when a fire or power outage occurs. The biggest reason for emergency shutdowns is the unexpected loss of electricity.

Inventory levels are also used as a measure of supply and demand in the market, because they may, in turn, exert pressure on prices. Product inventories, such as gasoline, frequently have a typical seasonal pattern, but if they are low relative to their typical levels and continue to fall, it may indicate increased demand in the market. During such times, prices will generally rise, as the market perceives this imbalance and buyers bid prices up to obtain apparently scare supply. The reverse holds true as well: high and rising stocks may indicate excess supply relative to demand, and induce prices to fall.