Semiannual Projections of Energy Supply and Demand Winter Outlook 2011- 2012

This publication is available on the MPSC website at **http://www.dleg.state.mi.us/mpsc/reports/energy/**

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Michigan Public Service Commission
Department of Licensing and Regulatory Affairs
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Preface

The Michigan Energy Appraisal is a semiannual assessment of Michigan's energy markets. The assessment assists in identifying potential supply problems, including adequacy of supply, weaknesses in the distribution system, and energy price changes. The focus of this report is on current events impacting supply, prices, and expected conditions and changes over the next six months.

The scope of the analysis varies by energy source. Michigan's electricity prices, supply, and availability are largely determined by events in Michigan and the Midwest. Natural gas supplies and prices are more closely tied to national trends. Petroleum product markets in Michigan are affected by international market conditions and events, and regional refinery production. For the appraisal, recent historical balances between Michigan's energy consumption and supply are analyzed, and consumption and supplies are projected. Actual and expected energy prices are reviewed to identify changes impacting consumer costs. Generally, the fall appraisal focuses on the winter heating season, and the summer appraisal focuses on summer energy use, including peak electricity supply and demand and gasoline for the summer driving season.

This report is prepared by the Management Services Division, the Regulated Energy Division, and the Operations & Wholesale Markets Division of the Michigan Public Service Commission (MPSC), Department of Licensing and Regulatory Affairs, State of Michigan.

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The Energy Appraisal is available at: http://www.dleg.state.mi.us/mpsc/reports/energy/. This site is linked to other energy-related sites, including the federal Energy Information Administration (EIA) at http://www.eia.doe.gov. The EIA site contains information on a variety of energy sources.

As a cost saving measure, the Michigan Energy Appraisal will no longer be printed and mailed. The latest version of the Michigan Energy Appraisal will be available on the MPSC website at: http://www.dleg.state.mi.us/mpsc/reports/energy/. Comments or questions on this appraisal are welcome and may be directed to Alex Morese, Michigan Public Service Commission, P.O. Box 30221, Lansing, Michigan 48909, phone (517) 241-0292, fax (517) 241-6011, or e-mail moresea@michigan.gov.

Highlights

Energy Appraisal – Winter 2011/2012

Energy supplies in Michigan this winter will be adequate to meet anticipated demand; overall annual demand for natural gas, electricity and propane is projected to increase due to a colder than normal 2010/11 winter season and extreme heat in July 2011. Motor gasoline and distillate fuels, however, are expected to decrease as a result of rising crude oil prices exerting downward pressure on both the economy and the consumption of these fuels. Assuming normal winter weather, Michigan residents using natural gas will see a decrease in average winter heating bills. Customers using heating oil and propane will likely see an increase since their pricing is largely tied to the increased cost of crude oil.

Electricity – Michigan's electricity sales are expected to increase 1.9 percent in 2011 compared to 2010 sales. This growth is due to higher consumption across all sectors with the greatest increase coming from residential customers. This increase is attributed to both a winter 2010/11 season that was 3.1 percent colder than normal and a warmer than normal summer. Total electricity demand across all sectors is expected to return to 2008 levels assuming normal weather conditions.

Natural Gas – Total natural gas sales in Michigan for 2011 are projected to be 758.5 billion cubic feet (Bcf), a 1.5 percent increase from 2010. While modest increases in demand are projected for all sectors, the majority of the increase is expected from residential and industrial customers. Natural gas storage levels are projected to be sufficient to meet anticipated demand for the coming winter. Natural gas prices are expected to average $9.54 per Mcf this winter, a 1 percent decrease from last year.

Petroleum – The projected average cost of crude oil to refiners for 2011 is $100 per barrel compared to $75.60 per barrel average in 2010, a 32 percent increase. This increase has contributed to a sluggish economic recovery and subsequent decline in oil demand. The Energy Information Administration expects U.S. liquid fuel consumption to decline by 170,000 b/d in 2011, with a slight rebound of 80,000 b/d in 2012. Domestic crude oil production continues its upward trajectory due in part to increased oil-drilling, specifically explorations in lesser used shale formations. These production increases have helped to reduce net imports of liquid fuels from 57 percent of total U.S. consumption in 2008 to just 47 percent in 2011.

Motor Gasoline – Gasoline sales in Michigan are projected to decrease by 1.7 percent from 2010 sales levels due primarily to a sustained increase in gasoline prices resulting from the rising cost of crude oil. From January to August of 2011, the average price for regular gasoline was $3.65, an increase of 89 cents from the same period in 2010. Regionally,[1] gasoline sales are expected to decrease by 0.9 percent in 2011. In addition to a loss of Libyan crude production and unrest throughout the Middle East region, the change to summer fuel blends, flooding in the Midwest and refinery shutdowns also contributed to high gasoline prices.

[1] The region is comprised of Illinois, Indiana, Kentucky, Michigan, Tennessee, and Ohio.

Distillate Fuel Oil – Following the trend set by gasoline sales in 2011, distillate sales are projected to decrease by 1.5 percent to 1,030.2 million gallons in Michigan. Despite the decrease, sales are projected to remain above levels seen in 2009. Much of the decrease can be attributed to high diesel fuel prices and slow economic growth, which have put downward pressure on sales.

Propane – In the past three years, propane consumption has experienced an overall decline with 2010 sales 25.6 percent below 2009 levels. Assuming normal weather for the remainder of the year, sales for 2011 are expected to increase by 3.6 percent over last year to 287.5 million gallons. Colder weather in the first half of winter 2011 is a contributing factor to this increase; however levels are still over 20 percent below sales in 2009.

Winter Heating Bills – It is expected that residential heating bills for natural gas will be lower this winter due to lower prices and assuming normal weather conditions. Normal weather means reduced consumption of heating fuels compared to last winter. Customers using propane or heating oil are likely to experience an increase in heating bills due to a rise in the price of crude oil. As of October 3, 2011, the average price of residential #2 heating oil was $3.47 per gallon and the residential propane price was $2.41 per gallon on average.

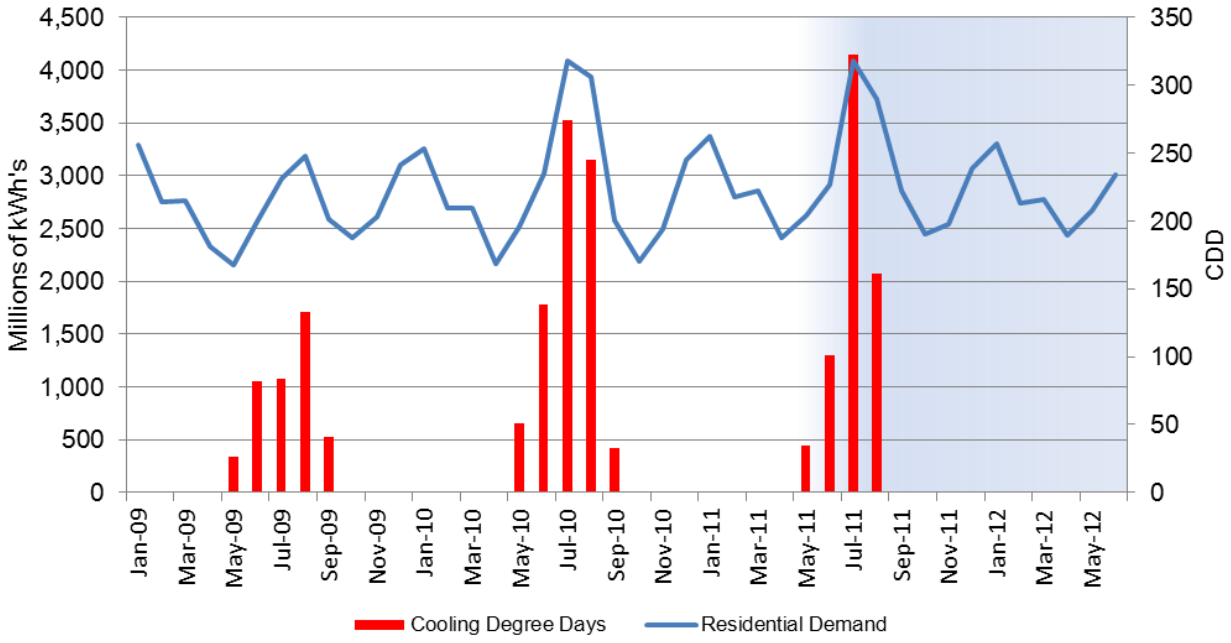
October 6, 2011
Michigan Public Service Commission
Department of Licensing and Regulatory Affairs

Electricity

Demand

Michigan's electricity sales are expected to increase 1.9 percent in 2011 compared to 2010 sales. This growth is due to higher consumption across all sectors with the greatest increase coming from residential customers. This increase is attributed to both a winter 2010/11 season that was 3.1 percent colder than normal and extreme heat during the month of July 2011. Industrial demand has continued to grow, but has been dampened by a recent slowdown in economic growth. For example, the industrial production index grew by only 1.8 percent from January to July of 2011 compared to 5.6 percent during the same time period last year. Commercial demand is expected to grow 1.6 percent, unchanged from summer 2011 projections, due primarily to stagnant commercial employment levels that are not expected to increase significantly in 2012. Total electricity demand across all sectors, however, is expected to return to 2008 levels assuming normal weather conditions.

Residential Electricity Demand vs. Cooling Degree Days[1]



*blue shaded region indicates where residential demand has been forecasted

[1]**Cooling degree-days:** A measure of how warm a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the base temperature (65 degrees) from the average of the day's high and low temperatures, with negative values set equal to zero. Each day's cooling degree-days are summed to create a cooling degree-day measure for a specified reference period. Cooling degree-days are used in energy analysis as an indicator of air conditioning energy requirements or use. Source: Energy Information Administration.

Michigan's combined summer peak demand of approximately 21,477 megawatts (MW) occurred on July 21, 2011. Consumers Energy's peak electric demand this summer, including choice customers, was 8,930 MW which also occurred on July 21, 2011. This exceeded the projected summer peak, which assumed normal summer weather. This summer's peak demand set an all-time company high, eclipsing the previous mark of 8,883 MW recorded on August 1, 2006. Detroit Edison's peak demand this year, including choice customers was 12,547 MW, which also occurred on July 21, 2011. This peak was below its previous record high of 12,778 MW set on August 2, 2006, however it was almost 25 percent above the projected peak based on normal temperatures. This year's peaks were higher than projected due to temperatures that were hotter and more humid than peak day weather in prior summers. Because of the warmer than normal temperatures experienced this summer Detroit Edison was forced to interrupt and/or cycle various customer groups to relieve local distribution areas.

Supply

No supply shortages or transmission constraints are expected to affect the ability of Michigan utilities to meet winter peak electric demand, which is normally at least 25 percent lower than the summer peak demand. In addition to power that they generate, Michigan utilities can purchase external electricity supply from wholesale markets administered by the Midwest Independent Transmission System Operator (MISO) and PJM Interconnection (PJM) as needed.

Prices

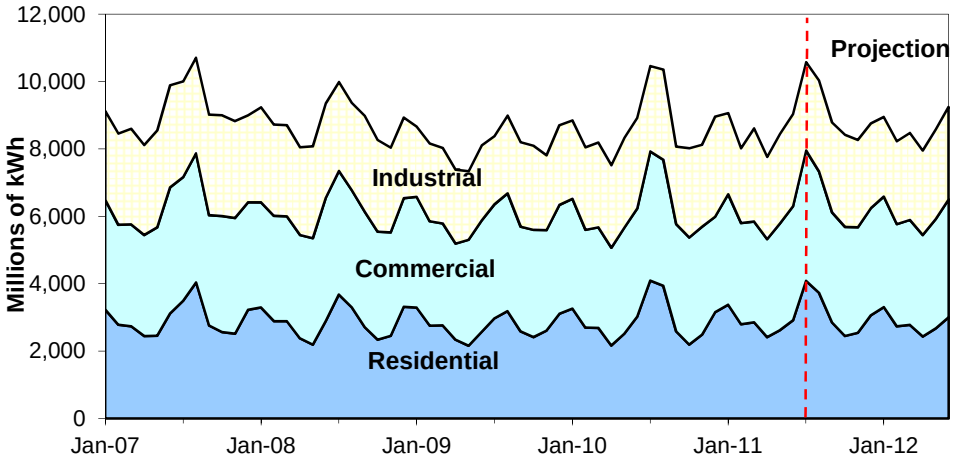
A Consumers Energy residential customer using 500 kWh per month pays $64.78 (12.96 cents per kWh) as of August 2011, compared to $63.01 a year ago, an increase of 2.8 percent.[2] In accordance with Michigan Public Act 286 of 2008, on November 4, 2010 the company filed proposed tariffs reflecting its intent to implement a rate increase of $145.75 million on or after November 5, 2010. The need to distribute Consumers' operating costs across fewer kWh continues to contribute to increased rates. This is also true for Detroit Edison.

A Detroit Edison residential customer using 500 kWh per month pays $69.72 (13.94 cents per kWh) in August 2011, compared to $63.54 a year ago, an increase of 9.7 percent. On April 27, 2011, Detroit Edison, in accordance with Michigan Public Act 286 of 2008, filed proposed tariffs reflecting its intent to self-implement a rate increase of $107 million beginning April 28, 2011.

In addition to rate increases, Consumers Energy, Detroit Edison, and all of Michigan's regulated electric utilities were required to file Power Supply Cost Recovery (PSCR) cases at the end of September 2011. These cases represent the utilities' requests to set PSCR factors for expected fuel, power purchase, transmission, and related costs for the 2012 year beginning January 1. PSCR related costs have risen in the past few years due to several factors including rising transmission costs and increasing fuel costs. This rise has impacted purchased power prices causing rates to rise accordingly. Declining revenues due to high participation in electric choice has also limited utilities' abilities to offset the impacts of these higher costs, further contributing to higher residential rates.

[2] These rates include the company's approved rate increase.

Michigan Electricity Sales



Michigan Electricity Sales Projection
(Millions of kWh)

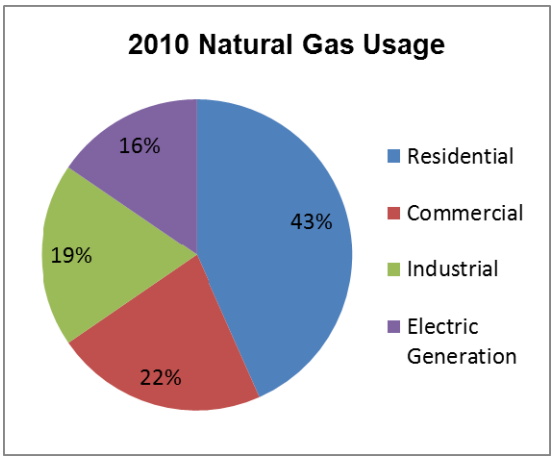
			Residential	Commercial	Industrial	Total
Historical	2008	Total	34,324	39,320	32,078	105,722
	2009	Total	32,750	38,110	27,010	97,870
	2010	Total	34,798	38,390	30,664	103,852
	2011	January	3,377	3,275	2,414	9,066
		February	2,797	3,005	2,215	8,017
		March	2,855	2,988	2,769	8,612
		April	2,414	2,910	2,444	7,768
		May	2,622	3,166	2,662	8,450
Projection		June	2,914	3,386	2,740	9,039
		July	4,084	3,865	2,630	10,580
		August	3,731	3,601	2,705	10,037
		September	2,853	3,267	2,670	8,791
		October	2,450	3,234	2,738	8,421
		November	2,544	3,130	2,592	8,266
		December	3,063	3,182	2,517	8,763
	2011	Total	35,704	39,008	31,097	105,809
2010-2011 change			2.6%	1.6%	1.4%	1.9%
	2012	January	3,306	3,275	2,371	8,952
		February	2,736	3,033	2,461	8,230
		March	2,780	3,116	2,583	8,479
		April	2,432	3,012	2,506	7,951
		May	2,673	3,248	2,662	8,584
		June	3,005	3,498	2,740	9,243

NOTE: Projected electricity sales are based on historical trends.
SOURCES: Historical Data -- Energy Information Administration, U.S Department of Energy.
Projection - Energy Data and Security Section, MPSC

Natural Gas

Demand

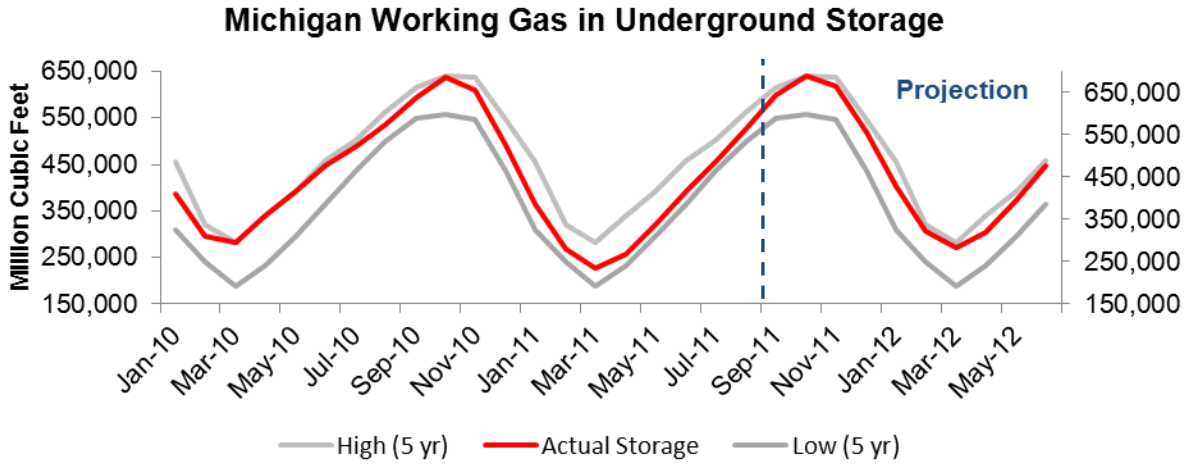
Total natural gas sales in Michigan for 2011 are projected to be 758.5 billion cubic feet (Bcf), a 1.5 percent increase from 2010 assuming a return to normal weather. While modest increases in demand are projected for all sectors, the majority of the increase is expected from residential and industrial customers. Much of the increase is due to a winter 2010/11 season which was 3.1 percent colder than normal. According to the EIA, total natural gas consumption nationwide is projected to increase by 1.8 percent. Weather is a determinant in all natural gas usage, but its effects are the most pronounced in the residential sector where 80 percent of Michigan households use it for home heating. In addition to weather, the price of natural gas and commercial employment levels are also important determinants in the industrial and commercial sectors respectively.



Supply

Nationally, working gas in underground storage was 3,164 Bcf as of September 9, 2011. This is 1.6 percent below the five-year average and 140 Bcf below the level of a year ago (a 4.3 percent decrease). Absent any major supply disruptions, continued strong production and moderate weather trends should lead to adequate injections during the coming weeks to bring working gas levels closer to par with the EIA five-year average. Natural gas production in Michigan is projected to decline by 5.2 percent from 141.9 Bcf in 2010 to 134.2 Bcf in 2011. With declining Michigan production and increasing demand, net interstate deliveries are projected to be 651 Bcf in 2011, an increase of 15.4 percent over 2010. Storage levels in Michigan are projected to be around 640 Bcf in October 2011, well above the five-year average.

Michigan utilities place large quantities of natural gas in storage during the summer for winter use as required by MPSC approved purchasing guidelines. Michigan has over 10 percent of the

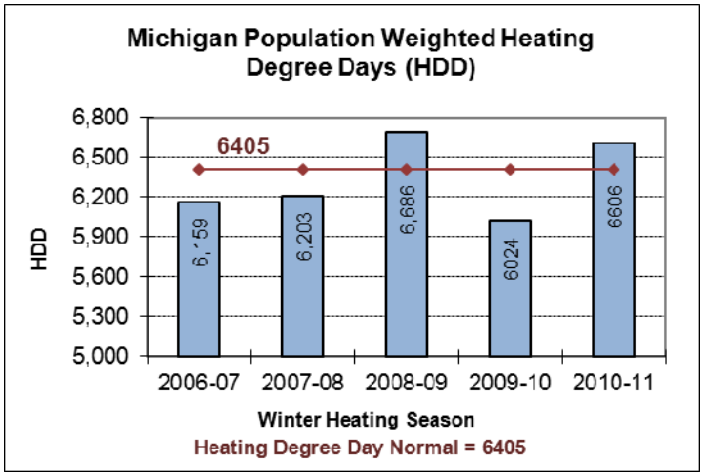


total available underground storage capacity for natural gas in the country. Utilities also purchase some fixed price contracts for winter during the summer in an effort to provide reliability and stability of supply to their customers.

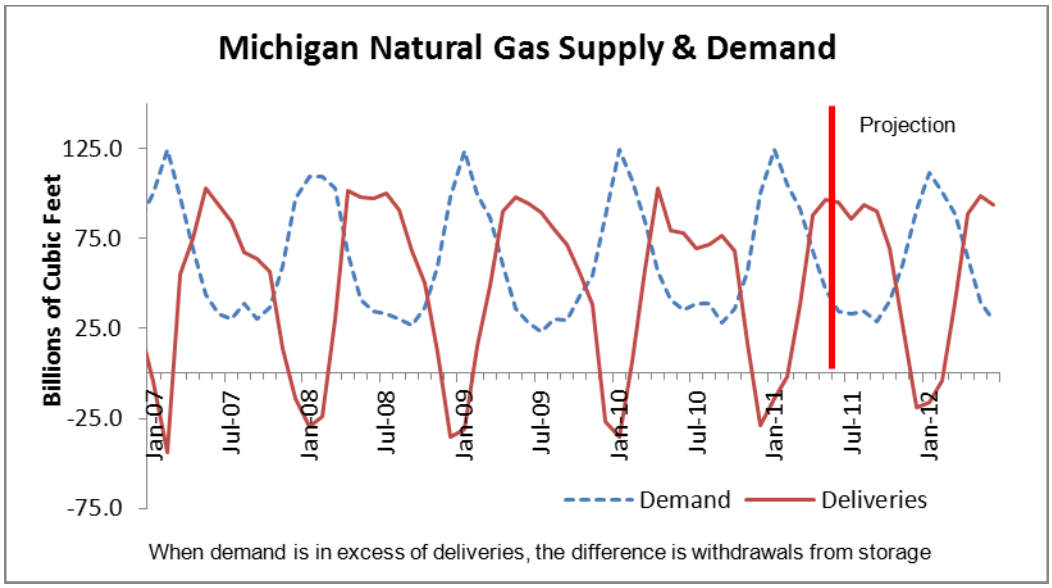
Price

Natural gas prices remained relatively low and stable this summer. The wholesale price for natural gas, which is determined by trading on the New York Mercantile Exchange (NYMEX), averaged approximately $4.30/Mcf (thousand cubic feet) this summer, ranging from the $4.80's/Mcf in June to $3.90's/Mcf in August. The stability is due to ample amounts of supply and the ongoing threat of a second recession which dampens expectations for future demand.

Assuming normal winter temperatures, residential natural gas bills are expected to be slightly lower this winter. The residential price of natural gas includes the wholesale cost of gas purchased by Michigan utilities, the cost of transporting and delivering the gas to customers, the monthly customer charge, and the energy optimization surcharge. The weighted average price for residential customers of all regulated utilities in Michigan over the winter season of November 2011 through March 2012 is currently projected to be $9.54/Mcf compared to last year's average of $9.82/Mcf. This represents a 1 percent decrease in natural gas prices from last year. The cost of gas will vary over the winter months to some extent as it is driven by supply and demand conditions such as weather.



If usage remains the same, MichCon's projected average monthly winter bill will be $134, down from $139 last winter or a 4 percent decrease. SEMCo's typical monthly winter bill will be about $118 which is a slight increase from last year. Monthly winter bills for Consumers Energy will be lower than last year, averaging about $142; this represents a 1 percent decrease. If this winter brings warmer than normal temperatures, these projections could be even lower.



Michigan Natural Gas Supply and Demand

(Billions of Cubic Feet--BCF)

			Total Demand	Net Interstate Deliveries	Michigan Production	To (From) Storage	Storage Balance
Historical	2008	Total	748.5	559.5	158.3 r	-30.7	466.3
	2009	Total	703.1	623.1 r	148.2	68.2	534.5
	2010	Total	747.6	563.9	141.9 r	-41.8	492.7
	2011	January	124.7	-14.0	11.7	-127.4	365.3
		February	105.2	-1.9	10.5	-96.7	268.6
		March	91.3	38.3	11.5	-41.5	227.1
		April	68.2	88.3	10.9	31.2	258.3
		May	46.3	96.6	11.1	61.7	320.0
Projection		June	34.6	95.4	10.9	71.7	391.7
		July	33.1	85.7	11.4	64.0	455.8
		August	34.6	93.9	11.4	70.8	526.6
		September	28.9	90.2	11.2	72.5	599.0
		October	39.9	69.5	11.4	41.0	640.0
		November	60.5	27.5	11.1	-22.0	618.0
		December	91.0	-18.7	11.1	-98.6	519.4
	2011	Total	758.5	650.8	134.2	26.7	519.4
	2010-2011 change		1.5%	15.4%	-5.5%		5.4%
	2012	January	111.3	-16.4	11.1	-117.0	402.4
		February	101.1	-3.7	9.9	-94.4	308.0
		March	88.5	39.6	10.9	-38.3	269.7
		April	62.7	88.5	10.3	34.2	303.9
		May	37.5	98.6	10.5	69.4	373.3
		June	29.3	93.9	10.4	74.4	447.7

NOTES: Projected demand assumes normal weather for the remainder of the year. Net interstate deliveries are calculated using sales less the sum of Michigan production and change in Michigan storage. Storage balance is end of month/year.
SOURCES: Historical Data -- Demand and Storage from Energy Information Administration, U.S. Department of Energy; Production from Operations & Wholesale Markets Division, MPSC. r = revised data; Projection –Energy Data and Security Section, MPSC.

Petroleum

World Outlook

According to the EIA's September 2011 "Short-Term Energy Outlook," [1] world crude oil demand is expected to grow to almost 88.2 million barrels per day (b/d) in 2011, an increase of 1.6 percent over levels in 2010. This growth is expected to continue into 2012 where demand is projected to average 89.6 million b/d. Continuing the trend of recent years, this growth will be driven by emerging economies, such as China, India, Brazil, etc., and comes in spite of reduced optimism regarding the global economy and continued concern over North Africa and Middle East political stability.

Instability in both international politics and world economies has contributed to a seesaw pattern for international crude oil prices of late. Crude oil prices began their ascent in the summer of 2010, when prices averaged in the mid $70s and slowly built to the upper $80s by the end of the year. Starting in 2011, prices continued this ascent ramping up in March and peaking in April. For the week ending April 15, 2011, world crude oil prices averaged $119.42 compared to $83.03 just a year before, a 44 percent increase.

The EIA projects that West Texas Intermediate (WTI) grade crude oil prices will average about $99 per barrel in the fourth quarter of 2011, up from last year's $82 per barrel for the fourth quarter. By the end of 2011, the EIA projects an average WTI crude oil price of $100 per barrel. According to the EIA, when compared to the U.S. average refiner acquisition cost of crude, WTI has been priced at an average discount of $6 per barrel in 2011. The price difference is due in part to transportation bottlenecks restricting the movement of crude oil out of the mid-continent region, leading to excess supply. This trend is expected to continue into 2012, with the price difference increasing to an average of $8 per barrel.

World oil inventories continue to be high but will decline slightly in both 2011 and 2012. Inventories in OEDC countries[2] will equal approximately a 57 day supply for 2011 and a 56 day supply for 2012, based on current demand levels. EIA expects OPEC's spare production capacity to decrease from 4.0 million b/d in 2010 to about 3.50 million b/d in 2011, before rebounding slightly in 2012. This surplus capacity acts as an important balance for petroleum markets, allowing them to better manage production declines or supply disruptions.

U.S. Outlook

According to the EIA's "Short Term Energy Outlook," total U.S. liquid fuel consumption (motor gasoline, jet fuel, distillate fuel, biofuels, etc.) is expected to fall by 170,000 b/d to 19.0 million

[1] U.S. DOE, Energy Information Administration: http://www.eia.doe.gov/emeu/steo/pub/contents.html

[2] OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the US.

b/d in 2011, attributed mainly to reduced gasoline sales. This follows an increase of 410,000 b/d for 2010. Consumption is expected to increase slightly (80,000 b/d) in 2012 to 19.09 million b/d.

Petroleum demand is supplied from domestic production plus imports of crude oil and petroleum products. Domestic crude oil production continues its upward trajectory, growing 110,000 b/d in 2010, 140,000 b/d in 2011 and 60,000 b/d in 2012. EIA attributes these increases to increased oil-drilling, specifically explorations in lesser used shale formations. These production increases have helped to reduce net imports of liquid fuels from 57 percent of total U.S. consumption in 2008 to just 47 percent in 2011.

U.S. crude oil inventories were 341 million barrels on September 23, 2011, about 4.7 percent lower than a year ago but still above the running five-year average for this time of year. This represents 22 days of supply for the U.S. Stocks of gasoline and distillate are also very high for this time of year, which should help cushion any potential supply disruption that could arise. Refineries averaged a capacity utilization rate of approximately 85.6 percent through the first three quarters of 2011 and 87.8 percent in the week of September 23, 2011. Gasoline imports to the US have experienced a significant decline in 2011, averaging 661,000 b/d for September 2011 compared to 1,010,000 b/d for September 2010. This reduction can be attributed to both a reduction in domestic demand and an increase in domestic production.

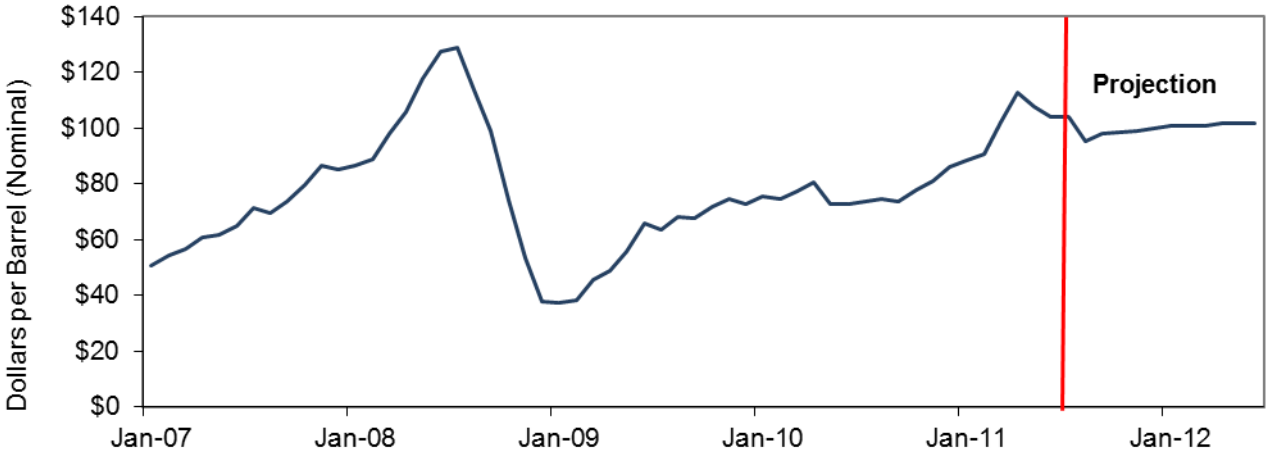
In the first half of 2011, the average acquisition cost to refiners for crude oil was $101.05 per barrel compared to $75.60 per barrel average in 2010, a 34 percent increase. The projected average cost for 2011 is $100 per barrel. These figures reflect the average purchase price, which is different than the price of oil traded in the New York Mercantile Exchange (NYMEX). The NYMEX is more reflective of the spot price and tends to be higher than the average purchase price.

Midwest Outlook

Currently, there are no supply constraints on petroleum products being shipped into the Midwest. In the past, disruptions to supply caused by hurricanes in the Gulf of Mexico have caused supply problems and price spikes in the Midwest. This year has been an active season with 16 named storms, but only four hurricanes, according to experts at Colorado State University and NOAA. Hurricane Irene, which wreaked havoc on the east coast, had little long-term impact on Midwest energy supplies. Therefore, assuming normal weather and absent supply problems caused by late season hurricanes or other natural disasters, pipelines, refineries or crude oil acquisition problems, it is expected that the price and supply of petroleum products should be stable.

Refiner Acquisition Cost of Crude Oil

2007 through June 2011 with projections through June 2012



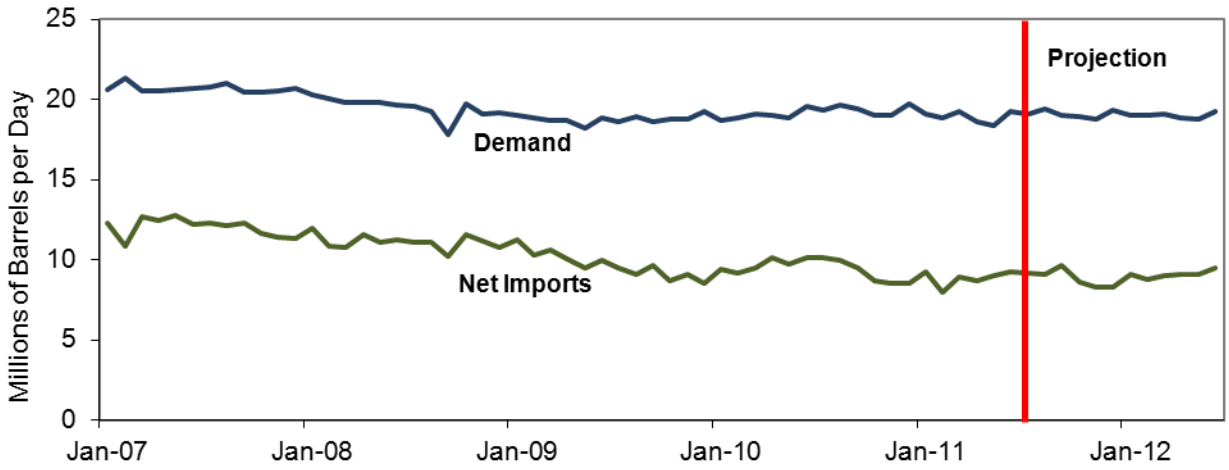
U.S. Petroleum Demand Projections

(Million barrels per day)

	2010				2011				2012		Yearly Ave		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	2010	2011	2012
							PROJECTED		PROJECTED				
Demand in 50 States	18.87	19.15	19.47	19.22	19.08	18.75	19.18	19.01	19.03	18.93	19.18	19.01	18.98
Domestic Crude Oil Supply [1]	5.50	5.40	5.46	5.54	5.57	5.61	5.52	5.77	5.73	5.70	5.47	5.62	5.71
Total Petroleum Net Imports [2]	9.36	9.99	9.86	8.55	8.71	8.99	9.30	8.41	8.94	9.22	9.44	8.85	9.08
Crude Oil Price [3]	75.83	75.38	74.05	81.59	93.85	108.24	99.17	99.17	105.00	102.00	76.71	100.11	103.00

Notes: [1]Includes only crude oil production. Additional sources of domestic petroleum supply include natural gas liquids, other Hydrocarbons, alcohol inputs and processing gains. [2]Net Imports include deliveries to the Strategic Petroleum Reserve. [3] In Dollars per barrel.
Sources: Energy Information Administration, DOE, October 2011 Short-Term Energy Outlook, and Petroleum Supply Monthly.

U.S. Total Petroleum Demand and Net Imports



Notes: The above projections and analysis were excerpted from the DOE Energy Information Administration's (EIA) "Short-Term Energy Outlook October 2011," the EIA Weekly Petroleum Status Report, Monthly Energy Review, and other industry sources..

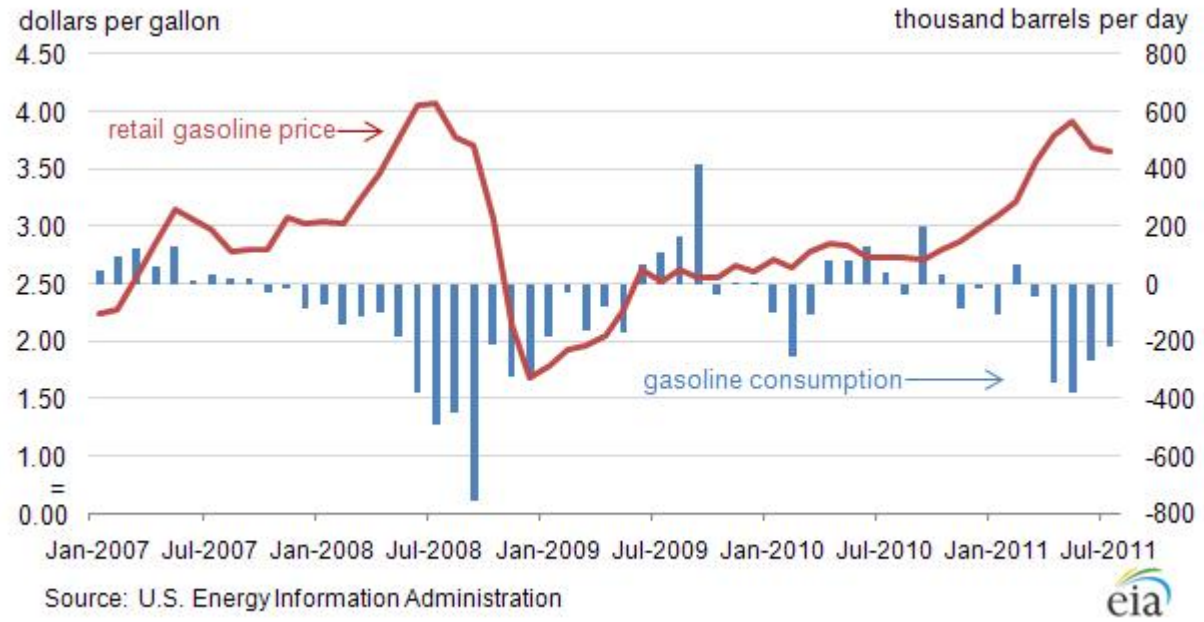
Motor Gasoline

Demand

Gasoline sales in Michigan are projected to decrease by 1.7 percent from 2010 sales levels due primarily to a sustained increase in gasoline prices resulting from the rising cost of crude oil. From January to August of 2011, the average price for regular gasoline was $3.65, an increase of 89 cents from the same period in 2010. In addition, the estimated average fuel efficiency of the in-use vehicle fleet rose by roughly 1.0 percent in the first half of 2011 from a year-ago. Beginning in 2004, sales in Michigan have decreased for five consecutive years with 2010 being the first year to break the trend. Projected sales for 2011 are 4,272.4 million gallons which would mark a return to levels seen in 2009. Regionally,[1] gasoline sales are expected to decrease by 0.9 percent in 2011.

State and regional demand trends are also reflected on the national level with U.S. demand projected to decrease by 0.9 percent according to the EIA Short-Term Energy Outlook. From January through June of 2011, consumption averaged about 180 thousand barrels per day, 2.0 percent lower than the same period in 2010.

National Average Retail Gasoline Price vs. Change in Gasoline Consumption



Supply

National gasoline inventories are expected to remain close to their five-year averages despite a recent release from the Strategic Petroleum Reserve (SPR). As part of the release, the U.S. made a total of 30.6 million barrels of crude oil available in an effort to avoid a potential supply

[1] The region is comprised of Illinois, Indiana, Kentucky, Michigan, Tennessee, and Ohio.

shortage. Total motor gasoline stocks at the end of August 2011 were an estimated 208 million barrels, down 7.4 percent from last year but two million barrels above the previous five-year average for that month. Regional inventories also remain below last year's levels with an expected year-end average of 262.1 million gallons (6.2 million barrels), 3.6 percent below 2010. For the first half of 2012, however, inventories are projected to increase and will build towards the five year average for that period. Inventories tend to peak during January and February and hit their low point during the summer driving season. The price of crude oil, gasoline demand, production and trends in the import/export market are all important determinants of inventory levels.

Average refining capacity utilization rates[2] in 2011 increased steadily throughout the year from a low of 83.4 percent in March to a high of 89.7 percent in August and have remained at about 89 percent into September. Any regional demand not met by domestic refinery production is balanced through increased imports of refined gasoline from other regions in the U.S. and foreign imports. For the week ending August 26, 2011, the previous four-week average of total gasoline imports into the U.S. was 731,000 barrels per day. This is a 35.3 percent decrease from the same period last year. Regional refineries are expected to produce an average of 1.8 billion gallons per month, an increase of 0.3 percent from 2010 production. As a result of an increase in U.S. refining capacity, weakening domestic demand and growing demand from Latin America, the U.S. is moving towards becoming a net exporter of refined gasoline.

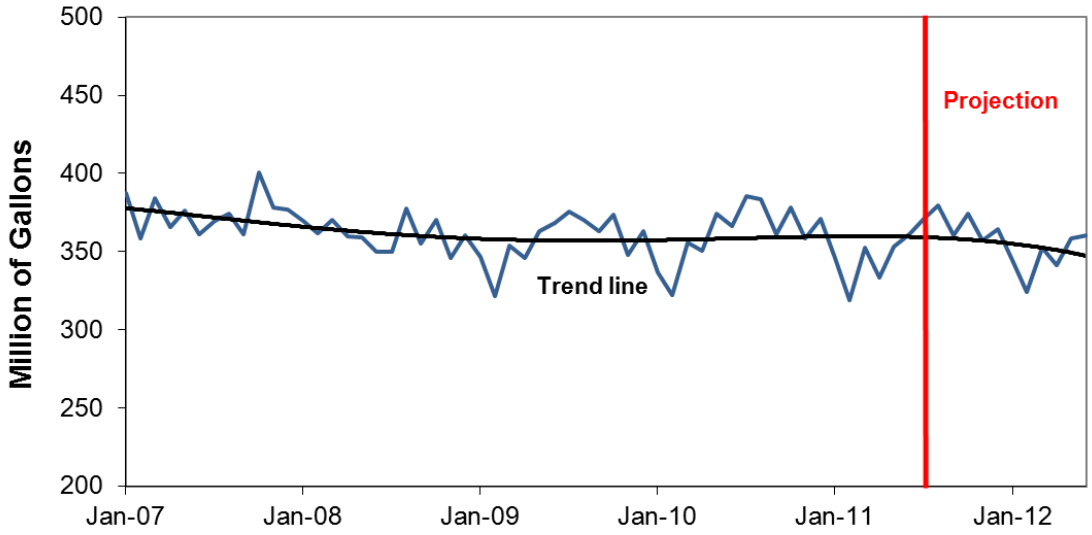
Price

The EIA forecasts that the annual average regular-grade gasoline retail price, which averaged $2.78 per gallon in 2010, will increase to $3.56 per gallon in 2011, and average $3.54 per gallon in 2012. The increase in retail prices in 2011 reflects not only the higher cost of crude oil but also changes in average U.S. refinery gasoline margin (the difference between refinery wholesale gasoline prices and the average cost of crude oil) from $0.34 per gallon in 2010, to $0.50 per gallon in 2011 and $0.43 per gallon in 2012.

According to AAA, the average price for a gallon of regular unleaded gasoline peaked at $4.26 on May 4, 2011. This was $1.33 more than the same day last year. Since then, prices have dropped to an average of $3.73 in August. In addition to a loss of Libyan crude production and unrest throughout the Middle East Region, the change to summer fuel blends, flooding in the Midwest and refinery shutdowns also contributed to high gasoline prices.

[2] Percent utilization is calculated as total refinery inputs divided by the most recent available.

Michigan Gasoline Sales



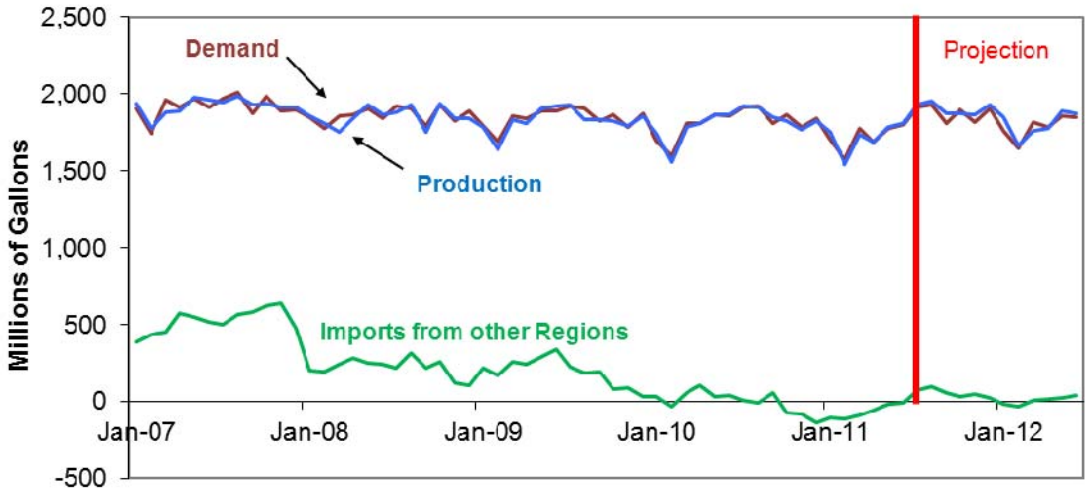
Michigan Gasoline Sales Projections

(Millions of Gallons)

			Total All Grades	Historical (prior year)	% Change
Historical	2008	Total	4,329.3 r	4,492.0	-3.6%
	2009	Total	4,292.7	4,329.3 r	-0.8%
	2010	Total	4,344.4	4,292.7	1.2%
	2011	January	345.6	336.8	
		February	319.2	322.5	
		March	352.7	355.5	
		April	333.6	350.8	
		May	353.1	374.2	
Projection		June	360.9	366.2	
		July	370.8	385.5	
		August	379.7	383.8	
		September	360.7	361.1	
		October	374.6	378.5	
		November	357.1	358.3	
		December	364.2	371.1	
	2011	Total	4,272.4	4,344.4	-1.7%
	2010-2011	Change	-1.7%		
	2012	January	325.8	345.6	
		February	305.0	319.2	
		March	332.5	352.7	
		April	321.0	333.6	
		May	336.8	353.1	
		June	335.1	346.8	

NOTE: These projections are based on moderate growth in Michigan's economy and stable gas prices.
SOURCE: Historical data - Energy Information Administration, U.S. Department of Energy.
Projections – Energy Data and Security Section, MPSC. r= revised data

Regional Gasoline Supply and Demand



Regional Gasoline Supply and Demand

(Millions of Gallons)

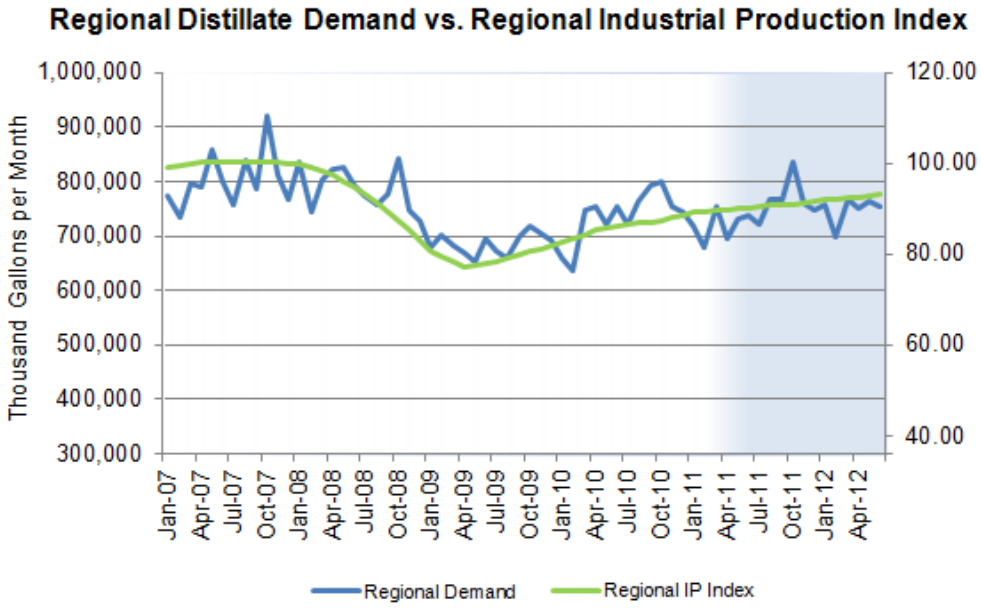
			Production	Inventories	Demand
Historical	2008	Average	1,629.8	519.7	1,860.0
	2009	Average	1,635.2	352.3	1,841.7
	2010	Average	1,808.4	271.9	1,813.7
	2011	January	1,853.1	275.1	1,700.0
		February	1,651.8	241.6	1,575.3
		March	1,820.7	203.6	1,772.6
		April	1,740.4	200.9	1,688.2
		May	1,796.0	205.4	1,777.3
Projection		June	1,818.8	218.4	1,794.9
		July	1,857.9	238.6	1,910.0
		August	1,856.2	257.4	1,930.6
		September	1,814.7	320.5	1,808.2
		October	1,835.5	292.0	1,899.1
		November	1,812.4	336.0	1,816.9
		December	1,902.0	355.9	1,905.0
	2011	Average	1,813.3	262.1	1,798.2
2010-2011 change			0.3%	-3.6%	-0.9%
	2012	January	1,857.7	445.7	1,755.0
		February	1,695.1	465.9	1,644.0
		March	1,753.7	415.0	1,812.4
		April	1,758.1	409.4	1,778.5
		May	1,863.6	439.1	1,854.6
		June	1,835.9	464.3	1,846.7

NOTE: Production projections are based on refinery utilizations and recent trends.
The region is comprised of Illinois, Indiana, Kentucky, Michigan, Tennessee, and Ohio.
SOURCE: Historical data - Energy Information Administration, U.S. Department of Energy.
Projections – Energy Data and Security Section, MPSC

Distillates

Demand

Distillate sales are projected to decrease by 1.5 percent to 1,030.2 million gallons in Michigan. Despite the decrease, sales are projected to remain above levels seen in 2009. Much of the decrease can be attributed to high diesel fuel prices and slow economic growth which have put downward pressure on sales. On a regional level, demand is projected to show less than a one percent increase over 2010 levels. This is partially due to regional industrial production which grew by an average of 0.28 percent from January to August of this year. Industrial production is an important determinant of sales since the trucking and railroad industries are large consumers of diesel fuel. Diesel fuel accounts for just under 95 percent of the total distillate consumption on average, with the remainder encompassing heating oil, kerosene, and No. 1 distillate.



*blue shaded region indicates where regional demand has been forecasted

Supply

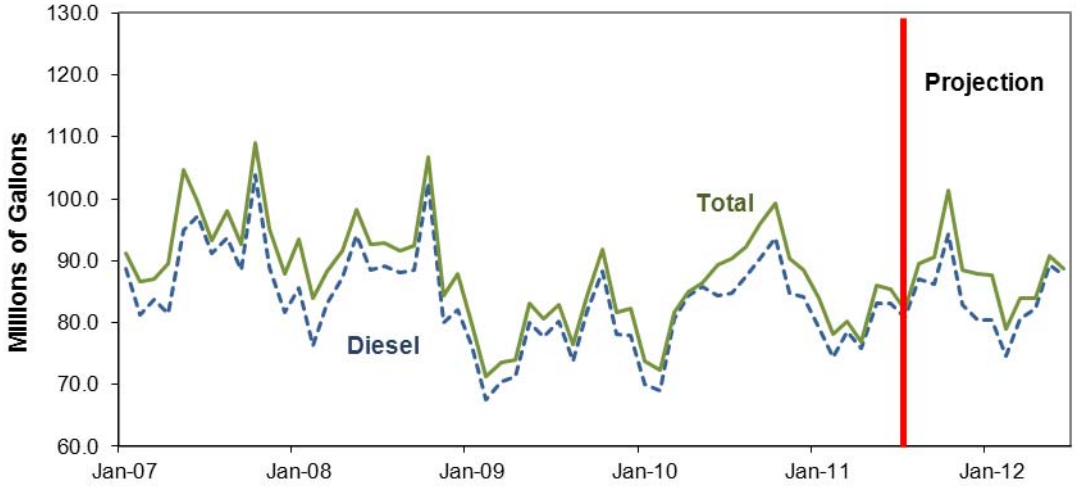
Regional refineries are expected to produce an average of 716.8 million gallons of distillate fuel oil per month in 2011, an increase of 1.2 percent over 2010. On September 2, 2011, national inventories of distillate oil were 156.8 million barrels, 18 million barrels below year ago levels, but within the five-year average range for this time of year. Midwest inventories were 27.8 million barrels on September 2, 2011, 4.7 million barrels below last September's levels. Inventory changes are used to balance refinery production and demand, and are a relatively small component of the day-to-day supply. Regional inventories in 2011 are expected to be above last year, but less than in 2009. Inventory levels are strongly affected by the economy, as weak demand causes decreased fuel use and a resulting build in inventories.

Price

Diesel fuel prices in Michigan averaged $3.84 per gallon on September 13, 2011, about $0.93 higher per gallon than a year ago and $0.14 higher than the price seen a month ago. EIA expects that on-highway diesel fuel retail prices, which averaged $2.99 per gallon in 2010, will average $3.85 per gallon in 2011. U.S. refinery diesel fuel margins are projected to increase from an average of $0.38 per gallon in 2010 to $0.65 per gallon in 2011, then fall to an average of $0.58 per gallon in 2012.

The principal price driver for No. 2 distillate fuel oil (heating oil) is the price of crude oil, which has increased significantly in 2011. On October 3, 2011 the price of heating oil was $3.47 per gallon, excluding the four percent sales tax. This is $0.40 more per gallon than the same period last year. The price for residential No. 2 Heating Oil for the 2010-2011 season started at $2.77 per gallon, excluding the four percent sales tax and averaged $3.07 per gallon over the course of the season. Other factors affecting price include seasonality of demand from weather conditions, competition in local markets and regional operating costs. The National Weather Service has predicted above normal temperatures for the majority of the winter season, but volatility in the crude oil markets is likely to place upward pressure on heating oil prices.

Michigan Distillate Fuel Oil Sales



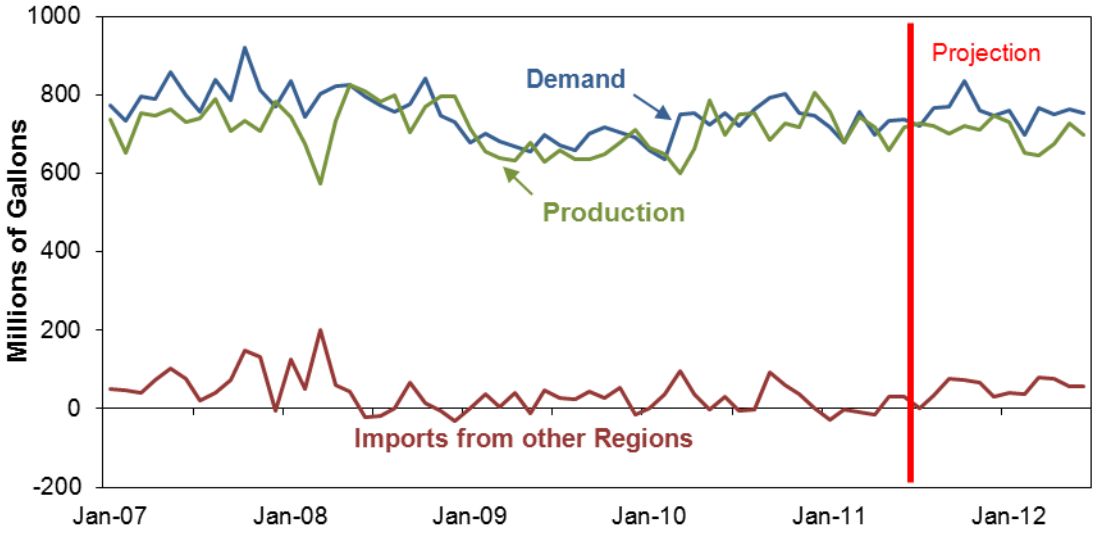
Michigan Distillate Fuel Oil Sales Projection

(Millions of Gallons)

			Other * Distillate	Diesel Fuel	Total	Prior Year	% Change
Historical	2008	Total	59.0	1,045.2	1,104.2	1,134.8	-2.7%
	2009	Total	37.9	923.6	961.6	1,104.2	-12.9%
	2010	Total	45.9	999.5	1,045.5	961.6	8.7%
	2011	January	4.7	79.3	83.9	73.7	
		February	3.7	74.4	78.0	72.4	
		March	1.5	78.6	80.1	81.6	
		April	1.1	75.8	76.9	84.9	
		May	2.9	83.2	86.0	86.5	
		June	2.2	83.2	85.3	89.4	
		July	1.3	80.9	82.2	90.4	
Projection		August	2.4	87.1	89.5	92.3	
		September	4.3	86.3	90.6	96.0	
		October	6.9	94.4	101.3	99.3	
		November	5.6	82.8	88.4	90.4	
		December	7.6	80.4	88.0	88.5	
	2011	Total	43.9	986.3	1,030.2	1,045.5	-1.5%
	2012	January	7.4	80.4	87.8	83.9	
		February	4.4	74.6	79.1	78.0	
		March	3.3	80.6	83.9	80.1	
		April	1.6	82.4	84.0	76.9	
		May	1.5	89.3	90.7	86.0	
		June	1.1	87.6	88.7	85.3	

NOTES: These projections assume normal heating degree day accumulations for the remainder of the year.
SOURCES: Historical data -- Energy Information Administration, U.S. Department of Energy. Projections -- Energy Data and Security Section, MPSC
* = Other Distillate is comprised of: Kerosene, No. 1 Distillate and No. 2 Fuel Oil

Regional Distillate Fuel Supply and Demand



Regional Distillate Fuel Oil Supply and Demand

(Millions of Gallons)

			Production	Inventories	Demand
Historical	2008	Average	750.5 r	505.2	787.6
	2009	Average	659.5 r	533.4	685.5
	2010	Average	708.2 r	512.3	737.3
	2011	January	757.9	557.7	718.4
		February	679.1	557.0	679.7
		March	742.8	535.6	755.4
		April	717.8	542.4	696.7
		May	658.6	500.3	732.6
Projection		June	715.8	511.4	737.2
		July	728.6	519.5	720.8
		August	720.4	505.3	767.6
		September	700.4	515.2	768.3
		October	721.1	473.9	836.2
		November	711.7	492.5	760.5
		December	747.3	524.5	747.4
	2011	Average	716.8	519.6	743.4
	2012	January	731.1	537.6	758.4
		February	652.7	528.3	699.3
		March	646.9	487.2	767.7
		April	676.0	488.6	750.7
		May	727.1	509.0	763.4
		June	699.3	510.1	754.5

NOTES: Production projections based on expected refinery capacity utilization, recent trends, and normal weather.
SOURCES: Historical data -- Energy Information Administration, U.S. Department of Energy; Projection - Energy Data and Security Section, MPSC. R=revised data.

Propane

Demand

According to the EIA, about 6 percent of U.S. households heat with propane. In Michigan it is estimated to be closer to 9 percent, more than any other state in the country. In spite of this, over the past three years propane consumption has experienced an overall decline with 2010 sales 25.6 percent below 2009 levels. This reduction can be partially attributed to the collapse of the new housing market, increases in energy efficiency and the continued upgrade of older equipment. Demand in the industrial and commercial sectors has also weakened due to the economic recession beginning in 2008. Assuming normal weather for the remainder of the year, sales for 2011 are expected to increase by 3.6 percent over last year to 287.5 million gallons. Colder weather in the first half of winter 2011 is a contributing factor to this increase; however levels are still over 20 percent below sales in 2009.

Supply

A unique feature of propane is that it is not produced for its own sake, but is a byproduct of natural gas processing and petroleum refining. It is important to understand that the by-product nature of propane production means that the volume made available through these refining processes cannot be adjusted when prices and/or demand for propane fluctuate. Because of this, storage is used to moderate price and weather fluctuations and is combined with imports to meet consumer demand. Michigan benefits from ample underground storage in the form of rock formations and caverns, similar to what is used for natural gas.

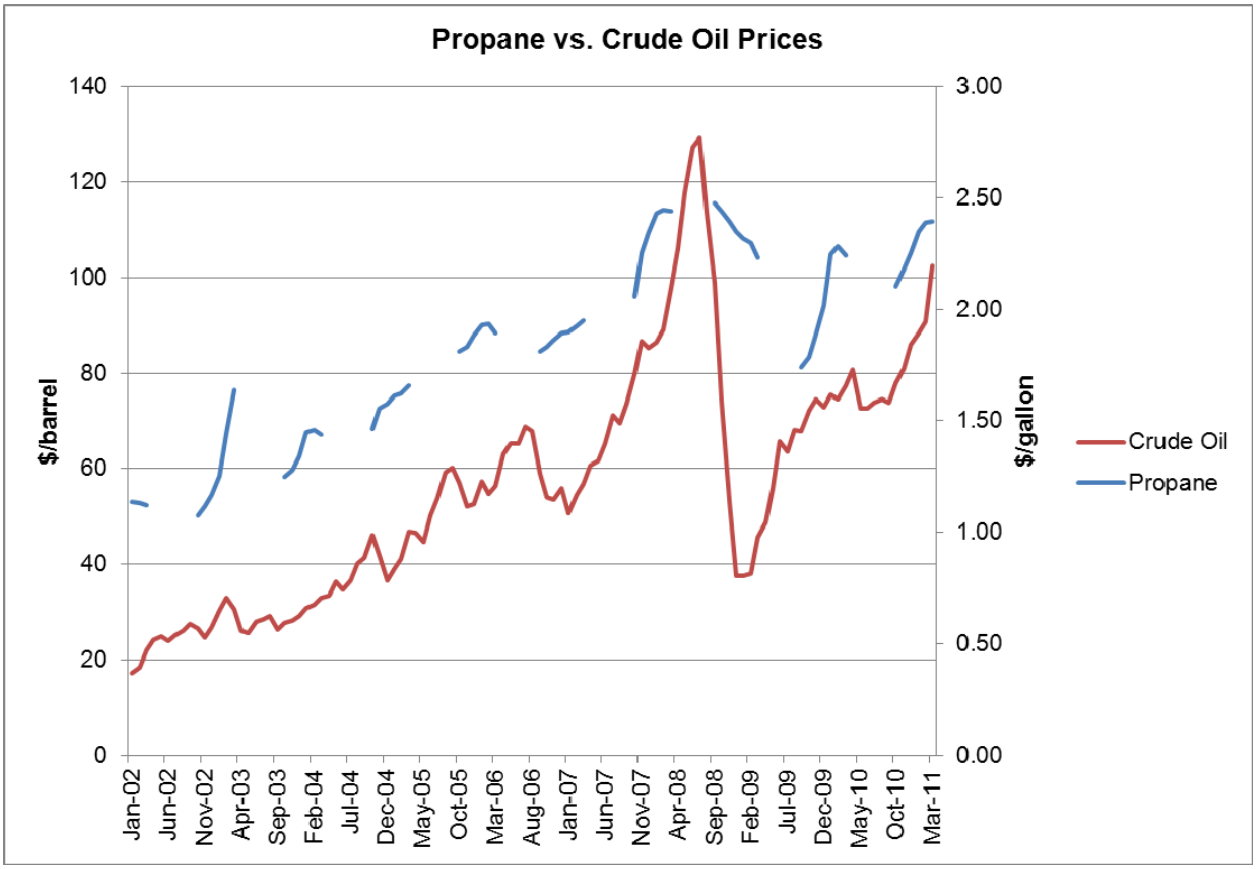
On September 9, 2011 national inventories of propane were at 54.7 million barrels, 8.9 million barrels below year ago levels. This puts stocks within the lower boundary of the five-year average range for this time of year and reflects a supply of about 63 days. Midwest inventories were almost 24.8 million barrels on September 9, 2011, 3.3 million barrels below the same time last year and slightly below the five-year average for this time of year. When inventories of propane are low at the start of the winter heating season, upward pressure is exerted on prices felt by consumers throughout the season.

Price

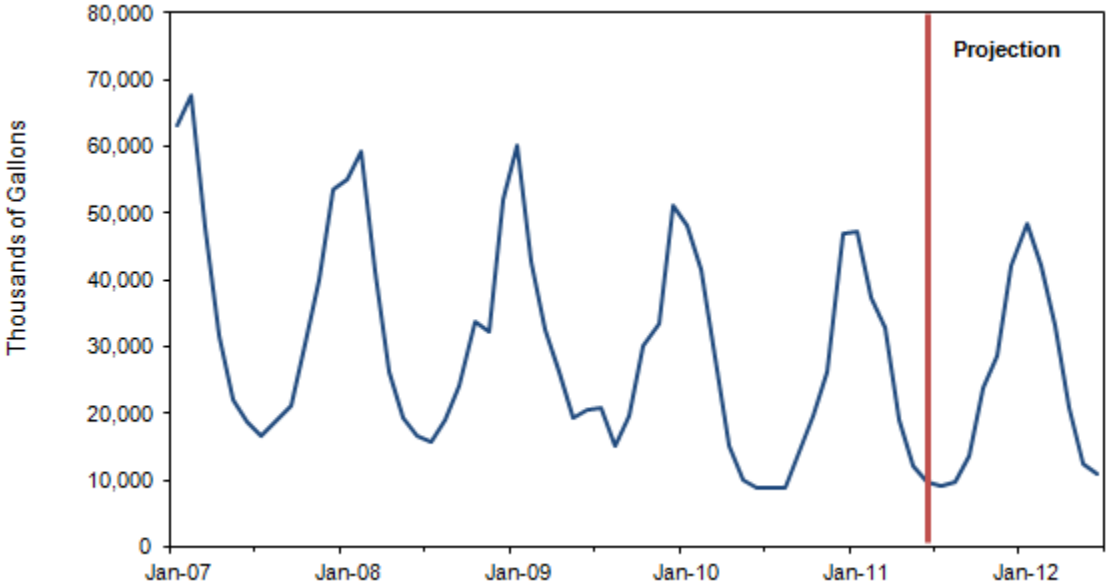
The price of propane is closely tied to the price of crude oil and natural gas. As the price of crude oil has increased this year, 14.1 percent compared to September 2010, the price of propane has followed suit. Colder-than-normal weather can also put extra pressure on propane prices during the high-demand winter season since there are no readily available sources of increased supply except for imports.

At the start of the 2011-2012 heating season which begins in October, the weighted average residential price of propane in Michigan was $2.41 per gallon, excluding the 4 percent state sales tax. This is $0.14 per gallon higher than the average price at the start of the previous heating season. For the 2010/11 season, the price of propane over the October to March survey period reached a high of $2.43 on February 28, 2011, but averaged $2.27 per gallon overall. This average

price was a $0.21 per gallon increase from the survey period in 2009-2010. For this coming winter season, prices will likely be higher than last year due to a significant increase in the price of crude oil.



Michigan Propane Sales to All Customers



Michigan Propane Sales Projections

(Thousands of Gallons)

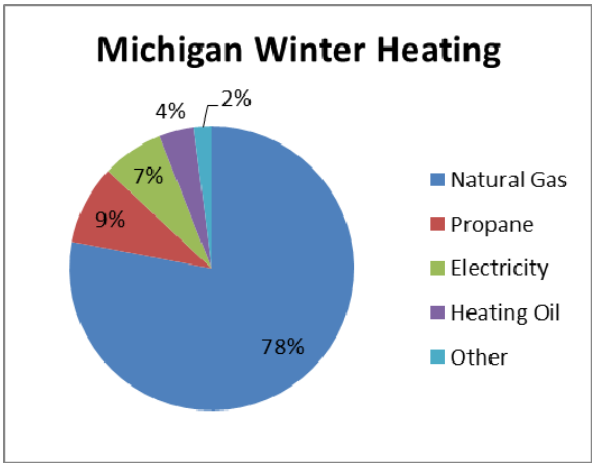
			Total Demand	Historical (prior year)	% Change
Historical	2008	Total	395.1	431.7	-8.5%
	2009	Total	372.6	395.1	-5.7%
	2010	Total	277.1	372.6	-25.6%
	2011	January	47.4	48.2	
		February	37.4	41.5	
		March	32.9	28.3	
		April	19.2	15.3	
		May	12.2	10.1	
		June	10.9	8.7	
Projection		July	8.9	8.8	
		August	10.8	9.0	
		September	14.3	14.3	
		October	23.0	19.7	
		November	29.3	26.4	
		December	41.2	47.0	
	2011	Total	287.5	277.1	
2010-2011 change			3.7%	-25.6%	3.7%
	2012	January	46.7	47.4	
		February	40.8	37.4	
		March	31.0	32.9	
		April	19.7	19.2	
		May	11.1	12.2	
		June	9.2	10.9	

NOTES: Projected demand assumes normal weather for the remainder of the year.
SOURCES: Historical Data -- Energy Information Administration, DOE; Projection –Energy Data and Security Section, MPSC.

Michigan Household Winter Heating Fuel Summary

	Actual 2010-2011	Weather Normalized Projections[1] 2011-2012	% Change 2010/2011 Actual
Natural Gas			
Consumption (Mcf)	77	72	
Avg. Price ($/Mcf)	$9.82	$9.54	-3%
Expenditures ($)	$756	$687	-9%
Heating Oil			
Consumption (gallons)	563	546	
Avg. Price ($/gallon)	$3.07	$3.47	13%
Expenditures ($)	$1,728	$1,895	10%
Propane			
Consumption (gallons)	714	693	
Avg. Price ($/gallon)	$2.27	$2.41	6%
Expenditures ($)	$1,622	$1,670	3%
Heating degree days % Departure from Normal	3.1	0	

[1] Projections of usage assume a return to normal weather. The Residential space heating price for 2010-2011 is based on the average for November to March each season. Natural Gas prices are based on October 2011's average rates for Michigan's gas utilities, including distribution and customer charge plus the cost of gas. Heating oil and propane prices are based on the October 3, 2011 average Michigan residential prices which are assumed to hold constant over the winter. Colder weather and/or increases in crude oil prices would affect this assumption.



The analysis above shows Michigan prices and consumption estimates from natural gas utilities, and propane and heating oil usage from the EIA's Residential Consumption Survey. Actual usage for any given home will depend on many factors including the relative energy efficiency of the home.

It is expected that residential heating bills for natural gas will be lower this winter due to lower prices and assuming normal weather conditions. Normal weather means reduced consumption of heating fuels compared to last winter, which was 3.1 percent colder than normal. Customers using propane or heating oil are likely to experience an increase in heating bills due to a rise in the price of crude oil. The U.S. average refiner acquisition cost of crude was 34 percent higher in the first half of 2011 compared to the same period in 2010. A return to normal weather and lower demand for refined petroleum products, however, may moderate price increases associated with demand and supply relationships.

A summary of winter fuel prices used in the above analysis is presented below.

- The weighted average price for residential customers of all regulated utilities in Michigan over the winter season is projected to be $9.54/Mcf, a 3 percent reduction. Assuming a projected winter consumption of 72 Mcf per household, MichCon and Consumers energy expect the average monthly winter bill to decrease by 4 percent and 1 percent respectively. SEMCo is expecting only a slight increase.

- On October 3, 2011, heating oil prices averaged $3.47 per gallon, an increase of 13 percent over last year's average price of $3.07 (November-March.). Propane prices averaged $2.41 per gallon, an increase of 6 percent over last year's average price of $2.27 (November-March.). Prices for both propane and heating oil this winter will depend on the price of crude oil which continues to fluctuate with global uncertainty, but has been trending downward of late.

Low Income Energy Assistance

Two recent developments will likely have a significant impact on how Michigan is able to respond to families unable to meet their home energy needs. Low income energy assistance available to Michigan households may be significantly reduced this winter heating season. This is due to a proposed reduction in funding to the federal Low Income Heating and Assistance Program (LIHEAP) and a recent Court of Appeals decision challenging the state's Low Income and Energy Efficiency Fund (LIEEF).

Federal Funding - The primary source of Michigan's low-income energy assistance funds is LIHEAP, a federal block grant program to assist low income households who pay a high proportion of their income for home energy costs. Currently, Michigan ranks in the top five states in the amount of LIHEAP funding received, with 615,000 households eligible in 2010. The President's FY 12 budget request proposes a cut in LIHEAP funding of about $2.5 billion. The proposed LIHEAP funding in Michigan for FY 12 is estimated at $106 million, representing a reduction of about $120.5 million or 47 percent.

State Funding - The LIEEF program, funded by Detroit Edison, Consumers Energy and Michigan Consolidated Gas and administered by the MPSC, provides grants to organizations providing shut-off protection for low-income customers as well as promoting energy efficiency by all customer classes. With LIEEF in doubt, $62 million in low-income energy assistance committed for the 2011-12 heating season may not become available to customers in need.

Outlook - During this fragile period of Michigan's economic recovery, the Commission recognizes the challenge of meeting the energy needs of Michigan's low-income working families and senior households. Reduced LIHEAP and LIEEF funding creates a hardship and forces low-income families and seniors to spend a significant percentage of their income on energy. Customers who are unable to pay their heating bills should contact their utility company or energy supplier before receiving a shut-off notice. Customers may qualify for winter shut off protection or other energy assistance programs.

Michigan Public Service Commission
Michigan Energy Appraisal
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