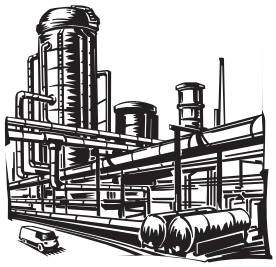
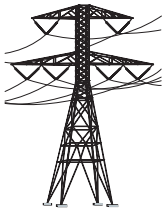
LOUISIANA ENERGY FACTS ANNUAL





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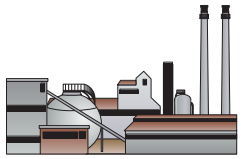

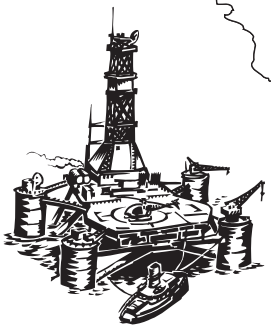

DEPARTMENT OF NATURAL RESOURCES
Technology Assessment Division
February 10, 2014

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LOUISIANA ENERGY FACTS

ANNUAL 2013

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Secretary of Natural Resources

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February 10, 2014

General Questions and Comments

The **Louisiana Energy Facts Annual - 2013** (**Annual**) was published by the Technology Assessment Division of the Louisiana Department of Natural Resources under the direction of Manuel Lam. The division director is Thomas Harris and the division assistant director is William J. Delmar, Jr.

General questions and comments regarding the **Annual** may be referred to Technology Assessment Division staff at (225) 342-1270. Questions concerning specific areas of the **Annual** may be directed to the Technology Assessment Division staff members listed below.

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INTRODUCTION

ABOUT THIS PUBLICATION

The **Louisiana Energy Facts Annual** (**Annual**) is published to provide a comprehensive compendium of Louisiana related energy production and use statistics on a yearly basis. The data tables are supplemented with numerous graphs and charts to aid in the interpretation of the data and the discernment of trends. The **Annual** is published as soon as sufficient data for the previous calendar year is available. Due to time lags in the availability of some of the data, there is approximately a six month lag before the current **Annual** can be published. Some changes have been introduced in order to incorporate the latest available data.

If you receive our monthly **Louisiana Energy Facts** newsletter, you may find that some of the previously published data has been revised in the **Annual**. This data, by its nature, continues to be revised, sometimes years after its initial publication. We try to bring attention to these changes by marking them as revisions.

The most recent **Louisiana Energy Facts** monthly newsletter may contain even more updates. Please refer to the recent monthlies for the very latest data. The **Louisiana Energy Facts** monthly newsletter is available in print and online at our website:

http://www.dnr.louisiana.gov/tad

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  Newsletter then **Louisiana Energy Facts**

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  Reports then **Energy Facts Annuals**

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  Facts & Figures

Note: the data in these tables will be updated throughout the year. The data files are not audited and will change as more reliable data becomes available.

The Technology Assessment Division is not the source of the data, but merely reports data provided to us by the responsible agency. We understand that users of our time series data need consistency and, for that reason, our time series have been adjusted backward to reflect these new modifications.

We hope you find this document useful, and we appreciate your feedback. Please fill, detach and return the survey form at the back of this report.

Additional comments or suggestions about this publication can be directed to the Technology Assessment Division staff members listed on the General Questions and Comments page.

2013 HIGHLIGHTS

The data in the 2013 **Louisiana Energy Facts Annual** contains some recent trends.

Crude Oil and Natural Gas Prices

Gas spot price average was $2.82 per MCF in 2012, and it was $3.80 per MCF in 2013; which is 34.7% higher than in 2012. The Louisiana natural gas spot market average in January 2013 was $3.45 per MCF and rose to $4.21 per MCF in December 2013. The high price in December is attributed to the cold weather. The average price for gas for 2014 is expected to be above $3.50 per MCF.

Light Louisiana Sweet (LLS) average spot crude oil price was $111.79 per barrel in 2012 and it was $107.35 per barrel in 2013, a 4% drop. The LLS crude oil spot price average was $112.73 per barrel in January 2013 and fell to $102.79 per barrel in December 2013. The oil price decline was caused by high production in oil shale and the increased in ability in transporting crude oil from Cushion, OK to the Gulf refineries. The 2014 LLS average spot price is expected to be around $95 per barrel.

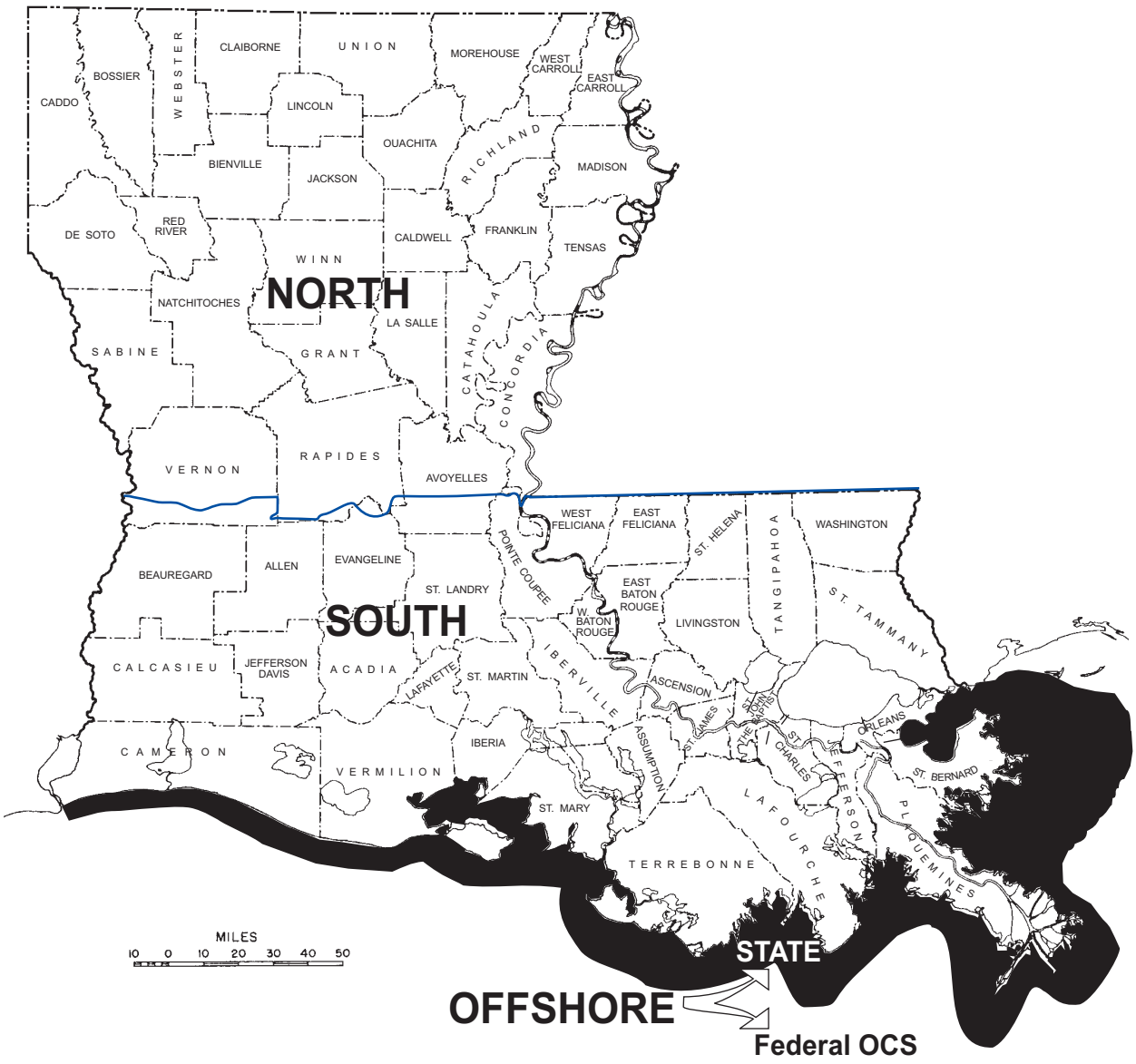
Oil and Gas Production

Oil production increased in 2013 over 2012. The Louisiana state crude oil and condensate production, excluding the federal Outer Continental Shelf (OCS), was 72.2 million barrels in 2013, a 1.1 million barrel or 1.6% increase from 2012. The Louisiana state natural gas and casinghead, excluding OCS production was 2.2 TCF in 2013, 24% lower than 2012. The increase in oil was caused by the high oil prices and higher drilling for oil in the state. The decrease in gas was driven by low gas prices and decline in drilling in the Haynesville shale area because of low gas prices. The Haynesville shale is producing around 60% of the state total gas production.

Drilling

Louisiana rig count, including the OCS area, averaged 108 active rigs in 2013 a 13% decrease from 2012. On state areas, the offshore region averaged 2 drilling rigs in 2013 an increase of one over 2012, South Inland water and land also showed a drilling rig increase in 2013 over 2012 while the North region showed a 33% decrease over 2012. The 2013 Federal OCS average showed a 5 drilling rig increase or 33% over 2012. The North LA drilling rigs decreased due to decreases in the Haynesville shale areas caused by low gas prices; the South LA increase was caused by the high oil prices; and the OCS increase was due to recovery from the “Moratorium” and higher oil prices.

SUBDIVISIONS OF LOUISIANA



Other significant items

Louisiana proved oil reserves were higher in 2011 than in 2010, due to increases in the offshore federal OCS areas in deep water region. The onshore region showed a slight decline. Louisiana proved gas reserves were higher in 2011 than in 2010 in the onshore areas, while the offshore proved gas reserves declined. The high gas reserves were the result of strong drilling activities in the shale areas

Louisiana refineries' 2013 daily crude oil average runs to stills were 2.68 million barrels per day, 2.8% lower than the 2012. It reflected the lower utilization of the refinery capacity.

Average employment in the oil and gas extraction industries was 50,963 in 2012; a 3.5% increase from 2011, due to higher drilling activities in other areas in the state not related to the Haynesville shale areas.

Table 1

LOUISIANA STATE CRUDE OIL PRODUCTION

Excluding OCS
(Barrels)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1992	21,993,892 r	74,873,810 r	15,072,154 r	111,939,856 r
1993	20,243,587 r	72,529,630 r	14,448,403 r	107,221,620 r
1994	17,374,804 r	67,063,120 r	13,716,512 r	98,154,436 r
1995	16,246,955 r	64,813,287 r	15,196,984 r	96,257,226 r
1996	16,576,627 r	63,662,781 r	14,748,690 r	94,988,098 r
1997	17,254,666 r	63,980,263 r	13,537,822 r	94,772,751 r
1998	16,320,254 r	62,329,107 r	12,731,270 r	91,380,631 r
1999	13,024,727 r	56,492,360 r	11,507,149 r	81,024,236 r
2000	11,890,407 r	53,957,823 r	10,120,547 r	75,968,777 r
2001	10,835,037 r	50,906,438 r	9,293,584 r	71,035,059 r
2002	9,734,754 r	43,151,661 r	7,630,661 r	60,517,076 r
2003	9,179,787 r	41,803,886 r	8,453,966 r	59,437,639 r
2004	8,697,903 r	41,289,067 r	7,015,580 r	57,002,550 r
2005	8,585,924 r	36,628,208 r	5,587,547 r	50,801,679 r
2006	8,327,465 r	36,416,376 r	4,639,216 r	49,383,057 r
2007	8,091,774 r	39,053,879 r	5,480,658 r	52,626,311 r
2008	7,996,633 r	36,318,691 r	4,081,708 r	48,397,032 r
2009	7,822,933 r	35,812,215 r	3,813,509 r	47,448,657 r
2010	7,787,366 r	36,618,284 r	4,656,109 r	49,061,759 r
2011	8,952,562 r	37,965,059 r	5,029,212 r	51,946,833 r
January	836,162 r	3,229,833 r	467,175 r	4,533,170 r
February	767,762 r	3,000,338 r	428,283 r	4,196,383 r
March	834,889 r	3,312,380 r	430,324 r	4,577,593 r
April	817,691 r	3,218,363 r	429,361 r	4,465,415 r
May	841,215 r	3,471,340 r	436,373 r	4,748,928 r
June	774,138 r	3,362,503 r	410,269 r	4,546,910 r
July	805,527 r	3,528,064 r	488,259 r	4,821,850 r
August	804,995 r	3,137,284 r	411,003 r	4,353,282 r
September	803,585 r	2,889,513 r	252,120 r	3,945,218 r
October	881,631 r	3,669,909 r	415,733 r	4,967,273 r
November	873,828 r	3,528,908 r	390,650 r	4,793,386 r
December	918,259 r	3,501,849 r	437,223 r	4,857,331 r
2012 Total	**9,959,682 r**	**39,850,284 r**	**4,996,773 r**	**54,806,739 r**
January	926,828	3,412,389	422,719	4,761,936
February	851,912	3,133,916	377,402	4,363,230
March	923,769	3,427,441	433,678	4,784,888
April	878,387	3,303,275	418,470	4,600,132
May	911,745	3,437,254	483,432	4,832,431
June	847,692	3,402,543	466,964	4,717,199
July	846,654	3,483,600	475,235	4,805,489
August	862,281	3,453,074	554,565	4,869,920
September	829,529	3,318,460	513,608	4,661,597
October	852,391	3,259,739	485,842	4,597,972
November	844,319 p	3,377,731 p	497,246 p	4,719,296 p
December	843,647 p	3,372,777 p	503,278 p	4,719,702 p
2013 Total	**10,419,153 p**	**40,382,200 p**	**5,632,439 p**	**56,433,792 p**

e Estimated r Revised p Preliminary

Table 2

LOUISIANA STATE CONDENSATE PRODUCTION

Excluding OCS
(Barrels)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1992	3,933,465 r	25,716,824 r	1,130,299 r	30,780,588 r
1993	3,933,228 r	25,427,247 r	1,147,939 r	30,508,414 r
1994	3,949,898 r	23,844,433 r	1,176,441 r	28,970,772 r
1995	4,348,138 r	22,800,168 r	1,819,043 r	28,967,349 r
1996	5,501,552 r	26,080,486 r	2,388,975 r	33,971,013 r
1997	4,574,610 r	24,315,163 r	2,492,990 r	31,382,763 r
1998	3,984,695 r	25,194,599 r	1,580,874 r	30,760,168 r
1999	3,686,774 r	24,768,250 r	1,343,439 r	29,798,463 r
2000	3,417,155 r	26,347,005 r	1,429,428 r	31,193,588 r
2001	3,439,438 r	28,422,048 r	1,970,474 r	33,831,960 r
2002	2,991,507 r	28,372,104 r	1,809,428 r	33,173,039 r
2003	2,869,424 r	26,171,738 r	1,895,522 r	30,936,684 r
2004	2,998,745 r	21,981,339 r	1,709,470 r	26,689,554 r
2005	3,323,446 r	20,365,449 r	1,195,413 r	24,884,308 r
2006	3,773,415 r	18,735,542 r	2,078,103 r	24,587,060 r
2007	4,335,873 r	18,299,586 r	2,114,728 r	24,750,187 r
2008	5,107,982 r	16,895,216 r	2,200,332 r	24,203,530 r
2009	4,268,592 r	15,079,481 r	2,176,661 r	21,524,734 r
2010	3,226,168 r	13,384,571 r	1,925,719 r	18,536,458 r
2011	2,911,759 r	12,947,526 r	1,486,904 r	17,346,189 r
January	254,543 r	1,062,958 r	139,577 r	1,457,078 r
February	232,999 r	954,647 r	129,146 r	1,316,792 r
March	230,390 r	1,018,823 r	151,591 r	1,400,804 r
April	230,389 r	1,006,729 r	148,650 r	1,385,768 r
May	237,156 r	1,007,208 r	149,517 r	1,393,881 r
June	215,339 r	956,827 r	125,240 r	1,297,406 r
July	221,037 r	969,886 r	129,965 r	1,320,888 r
August	227,196 r	882,168 r	89,997 r	1,199,361 r
September	214,879 r	894,364 r	138,407 r	1,247,650 r
October	239,734 r	1,043,287 r	149,359 r	1,432,380 r
November	243,245 r	1,032,194 r	117,252 r	1,392,691 r
December	252,688 r	1,073,562 r	130,026 r	1,456,276 r
2012 Total	**2,799,595 r**	**11,902,653 r**	**1,598,727 r**	**16,300,975 r**
January	275,603	999,940	139,148	1,414,691
February	265,278	931,239	107,801	1,304,318
March	287,298	1,006,088	112,568	1,405,954
April	279,285	939,790	100,266	1,319,341
May	261,566	995,235	107,725	1,364,526
June	258,023	958,400	97,345	1,313,768
July	264,881	969,293	136,362	1,370,536
August	256,058	949,388	103,005	1,308,451
September	221,193	893,301	88,801	1,203,295
October	220,250	890,085	63,061	1,173,396
November	259,716 p	937,716 p	109,471 p	1,306,903 p
December	260,115 p	934,021 p	111,881 p	1,306,017 p
2013 Total	**3,109,266 p**	**11,404,497 p**	**1,277,434 p**	**15,791,197 p**

e Estimated r Revised p Preliminary

Table 3

LOUISIANA STATE CRUDE OIL and CONDENSATE PRODUCTION

Excluding OCS
(Barrels)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1992	25,927,357 r	100,590,634 r	16,202,453 r	142,720,444 r
1993	24,176,815 r	97,956,877 r	15,596,342 r	137,730,034 r
1994	21,324,702 r	90,907,553 r	14,892,953 r	127,125,208 r
1995	20,595,093 r	87,613,455 r	17,016,027 r	125,224,575 r
1996	22,078,179 r	89,743,267 r	17,137,665 r	128,959,111 r
1997	21,829,276 r	88,295,426 r	16,030,812 r	126,155,514 r
1998	20,304,949 r	87,523,706 r	14,312,144 r	122,140,799 r
1999	16,711,501 r	81,260,610 r	12,850,588 r	110,822,699 r
2000	15,307,562 r	80,304,828 r	11,549,975 r	107,162,365 r
2001	14,274,475 r	79,328,486 r	11,264,058 r	104,867,019 r
2002	12,726,261 r	71,523,765 r	9,440,089 r	93,690,115 r
2003	12,049,211 r	67,975,624 r	10,349,488 r	90,374,323 r
2004	11,696,648 r	63,270,406 r	8,725,050 r	83,692,104 r
2005	11,909,370 r	56,993,657 r	6,782,960 r	75,685,987 r
2006	12,100,880 r	55,151,918 r	6,717,319 r	73,970,117 r
2007	12,427,647 r	57,353,465 r	7,595,386 r	77,376,498 r
2008	13,104,615 r	53,213,907 r	6,282,040 r	72,600,562 r
2009	12,091,525 r	50,891,696 r	5,990,170 r	68,973,391 r
2010	11,013,534 r	50,002,855 r	6,581,828 r	67,598,217 r
2011	11,864,321 r	50,912,585 r	6,516,116 r	69,293,022 r
January	1,090,705 r	4,292,791 r	606,752 r	5,990,248 r
February	1,000,761 r	3,954,985 r	557,429 r	5,513,175 r
March	1,065,279 r	4,331,203 r	581,915 r	5,978,397 r
April	1,048,080 r	4,225,092 r	578,011 r	5,851,183 r
May	1,078,371 r	4,478,548 r	585,890 r	6,142,809 r
June	989,477 r	4,319,330 r	535,509 r	5,844,316 r
July	1,026,564 r	4,497,950 r	618,224 r	6,142,738 r
August	1,032,191 r	4,019,452 r	501,000 r	5,552,643 r
September	1,018,464 r	3,783,877 r	390,527 r	5,192,868 r
October	1,121,365 r	4,713,196 r	565,092 r	6,399,653 r
November	1,117,073 r	4,561,102 r	507,902 r	6,186,077 r
December	1,170,947 r	4,575,411 r	567,249 r	6,313,607 r
2012 Total	**12,759,277 r**	**51,752,937 r**	**6,595,500 r**	**71,107,714 r**
January	1,202,431	4,412,329	561,867	6,176,627
February	1,117,190	4,065,155	485,203	5,667,548
March	1,211,067	4,433,529	546,246	6,190,842
April	1,157,672	4,243,065	518,736	5,919,473
May	1,173,311	4,432,489	591,157	6,196,957
June	1,105,715	4,360,943	564,309	6,030,967
July	1,111,535	4,452,893	611,597	6,176,025
August	1,118,339	4,402,462	657,570	6,178,371
September	1,050,722	4,211,761	602,409	5,864,892
October	1,072,641	4,149,824	548,903	5,771,368
November	1,104,035 p	4,315,448 p	606,716 p	6,026,199 p
December	1,103,762 p	4,306,799 p	615,159 p	6,025,719 p
2013 Total	**13,528,420 p**	**51,786,696 p**	**6,909,873 p**	**72,224,988 p**

e Estimated r Revised p Preliminary

Figure 1

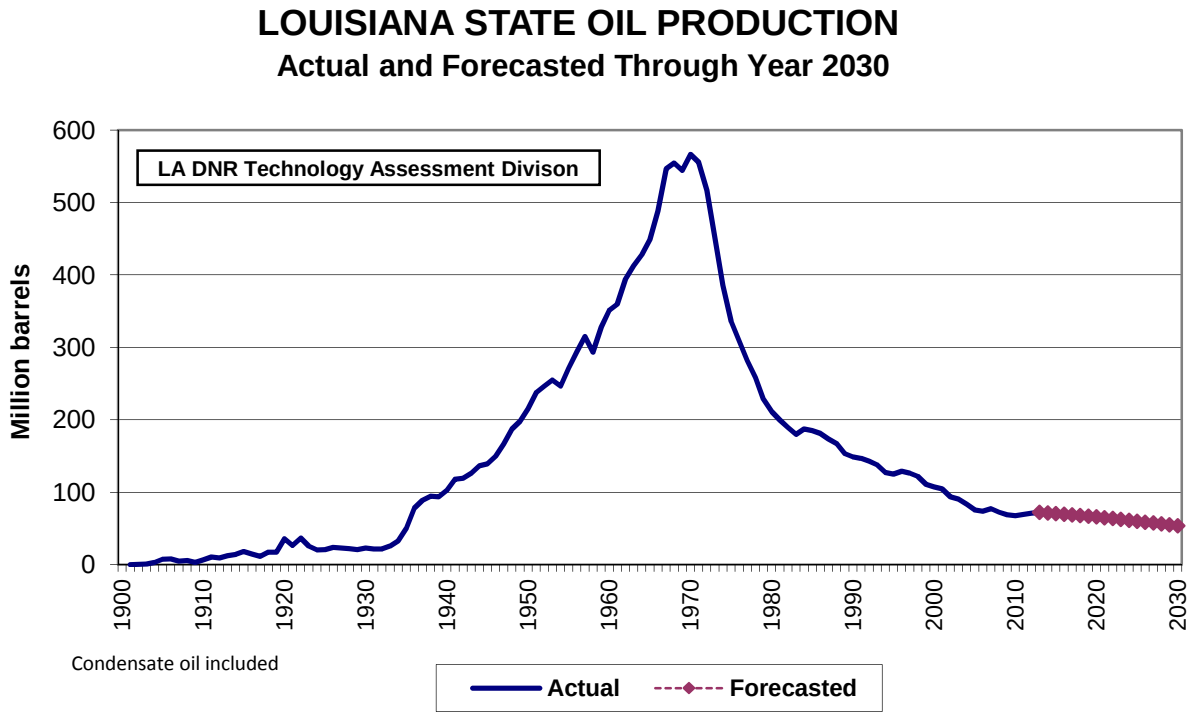


Figure 2

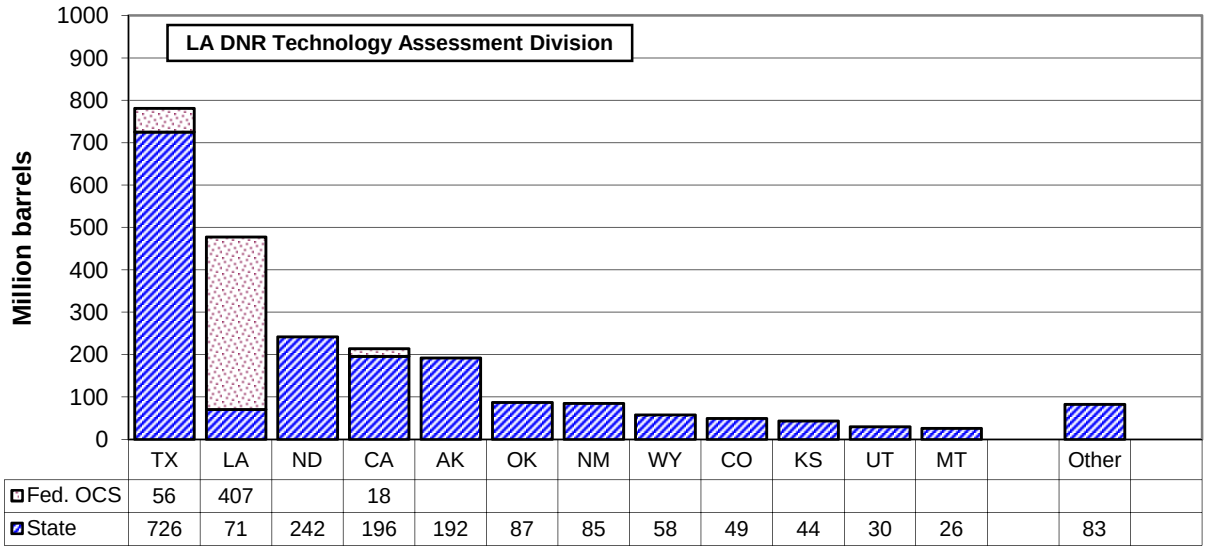


Table 4

LOUISIANA TOTAL CRUDE OIL and CONDENSATE PRODUCTION

(Barrels)

DATE	ONSHORE	OFFSHORE		TOTAL
		State	Federal OCS	
1992	126,517,991 r	16,202,453 r	288,918,208	431,638,652 r
1993	122,133,692 r	15,596,342 r	293,443,881	431,173,915 r
1994	112,232,255 r	14,892,953 r	293,077,191	420,202,399 r
1995	108,208,548 r	17,016,027 r	320,255,087	445,479,662 r
1996	111,821,446 r	17,137,665 r	349,101,048	478,060,159 r
1997	110,124,702 r	16,030,812 r	399,536,004	525,691,518 r
1998	107,828,655 r	14,312,144 r	425,865,901	548,006,700 r
1999	97,972,111 r	12,850,588 r	451,391,454	562,214,153 r
2000	95,612,390 r	11,549,975 r	477,645,662	584,808,027 r
2001	93,602,961 r	11,264,058 r	502,115,031	606,982,050 r
2002	84,250,026 r	9,440,089 r	508,630,349	602,320,464 r
2003	80,024,835 r	10,349,488 r	505,203,116	595,577,439 r
2004	74,967,054 r	8,725,050 r	477,182,586 e	560,874,690 e r
2005	68,903,027 r	6,782,960 r	407,154,253 e	482,840,240 e r
2006	67,252,798 r	6,717,319 r	419,555,392 e	493,525,509 e r
2007	69,781,112 r	7,595,386 r	427,033,161 e	504,409,659 e r
2008	66,318,522 r	6,282,040 r	385,638,041 e	458,238,603 e r
2009	62,983,221 r	5,990,170 r	528,205,742 e	597,179,133 e r
2010	61,016,389 r	6,581,828 r	520,367,741 e r	587,965,958 e r
2011	62,776,906 r	6,516,116 r	434,862,912 e r	504,155,934 e r
January	5,383,496 r	606,752 r	35,916,110 e	41,906,358 e r
February	4,955,746 r	557,429 r	34,042,759 e	39,555,934 e r
March	5,396,482 r	581,915 r	37,769,835 e	43,748,232 e r
April	5,273,172 r	578,011 r	32,970,612 e	38,821,795 e r
May	5,556,919 r	585,890 r	31,854,651 e	37,997,460 e r
June	5,308,807 r	535,509 r	28,907,058 e	34,751,374 e r
July	5,524,514 r	618,224 r	35,273,379 e	41,416,117 e r
August	5,051,643 r	501,000 r	30,152,086 e	35,704,729 e r
September	4,802,341 r	390,527 r	30,332,679 e	35,525,547 e r
October	5,834,561 r	565,092 r	36,330,391 e	42,730,044 e r
November	5,678,175 r	507,902 r	36,116,208 e	42,302,285 e r
December	5,746,358 r	567,249 r	37,702,457 e	44,016,064 e r
2012 Total	**64,512,214 r**	**6,595,500 r**	**407,368,226 e**	**478,475,940 e r**
January	5,614,760	561,867	36,218,370 e	42,394,997 e
February	5,182,345	485,203	32,123,967 e	37,791,515 e
March	5,644,596	546,246	33,679,176 e	39,870,018 e
April	5,400,737	518,736	34,783,565 e	40,703,038 e
May	5,605,800	591,157	31,864,997 e	38,061,954 e
June	5,466,658	564,309	28,447,907 e	34,478,874 e
July	5,564,428	611,597	33,787,703 e	39,963,728 e
August	5,520,801	657,570	32,751,308 e	38,929,679 e
September	5,262,483	602,409	33,980,636 e	39,845,528 e
October	5,222,465	548,903	32,241,889 e	38,013,257 e
November	5,419,483 p	606,716 p	N/A	6,026,199 p
December	5,410,560 p	615,159 p	N/A	6,025,719 p
2013 Total	**65,315,116 p**	**6,909,873 p**	**329,879,518 e**	**402,104,507 p**

e Estimated r Revised p Preliminary

Figure 3

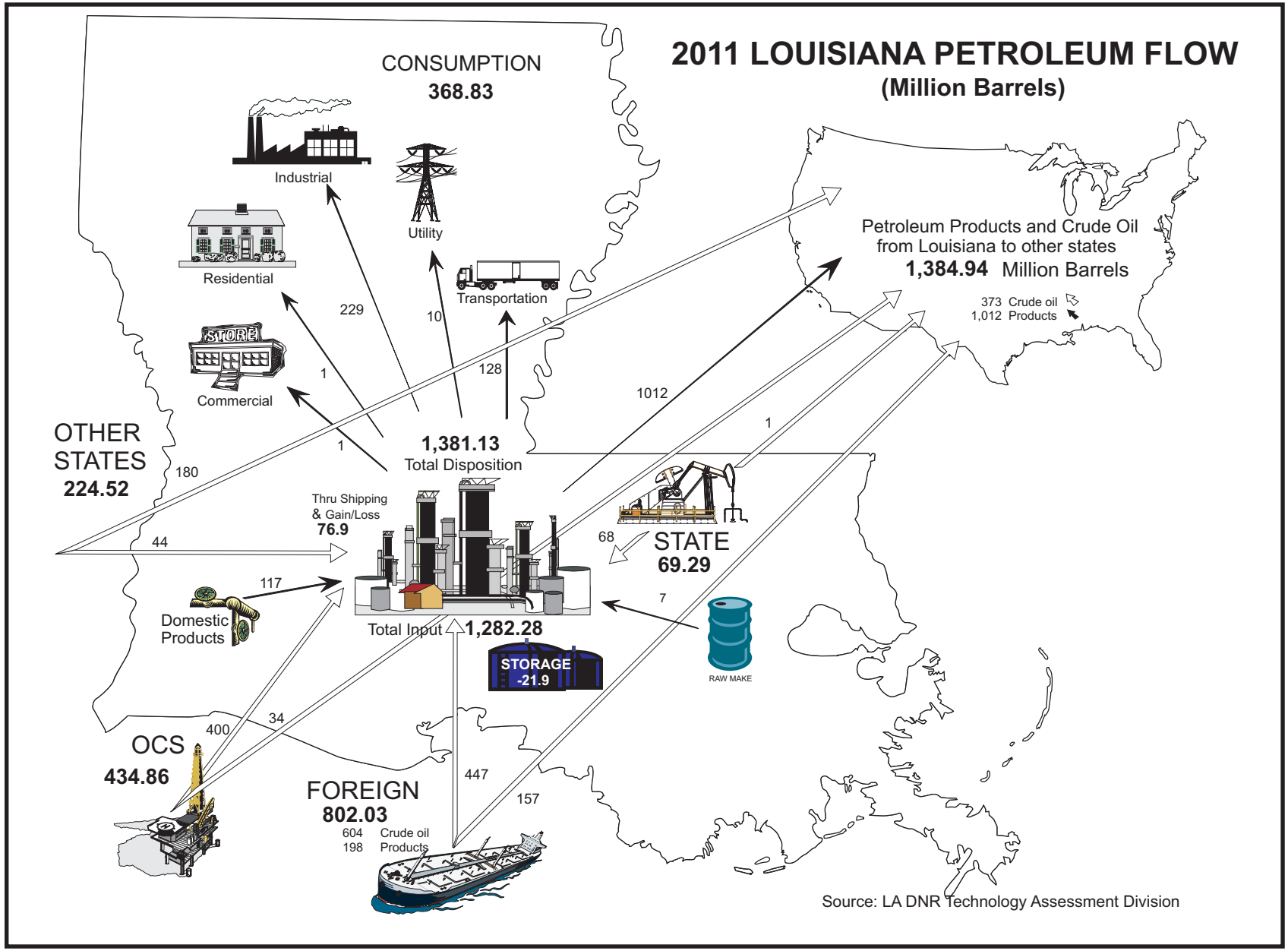

2011 LOUISIANA PETROLEUM FLOW
(Million Barrels)
CONSUMPTION
368.83
Industrial
Utility
Residential
Transportation
Commercial
229
10
1
128
1
1012
1
OTHER STATES
224.52
180
1,381.13
Total Disposition
Thru Shipping & Gain/Loss
76.9
44
68
STATE
69.29
117
7
Domestic Products
Total Input
1,282.28
STORAGE
-21.9
RAW MAKE
400
34
OCS
434.86
447
157
FOREIGN
802.03
604 Crude oil
198 Products
Petroleum Products and Crude Oil
from Louisiana to other states
1,384.94 Million Barrels
373 Crude oil
1,012 Products
Source: LA DNR Technology Assessment Division

Table 5

LOUISIANA STATE OIL PRODUCTION* BY TAX RATES AS PUBLISHED IN SEVERANCE TAX REPORTS[8] (Barrels)

DATE	FULL RATE	INCAPABLE WELLS RATE	STRIPPER WELLS RATE	TAXED VOLUME
1992	133,399,849	3,665,298	7,718,696	144,783,843
1993	128,699,431	3,448,387	7,240,065	139,387,883
1994	118,109,958	3,691,802	6,347,047 e	128,148,807 e
1995	108,373,913	4,239,717	6,230,454 e	118,844,084 e
1996	103,524,192	3,786,147	6,240,956 e	113,551,295 e
1997	101,772,533	3,466,389	6,101,247 e	111,340,169 e
1998	89,083,365	2,878,225	5,892,007 e	97,853,597 e
1999	85,207,438	2,786,515	5,690,984 e	93,684,937 e
2000	88,411,207	2,783,268	5,322,515	96,516,990
2001	83,994,058	2,576,683	5,175,142	91,745,883
2002	79,038,703 e	2,571,901 e	4,681,607 e	86,292,211 e
2003	75,070,785	2,565,017	4,912,890	82,548,691
2004	73,133,821	2,852,851	4,838,681	80,825,353
2005	61,356,971	2,754,911	4,784,530	68,896,412
2006	61,520,365	2,621,592	4,786,820	68,928,778
2007	64,036,607	2,612,497	4,531,456	71,180,560
2008	61,520,109	2,564,615	4,974,960	69,059,684
2009	55,212,475	1,927,478	4,364,995	61,504,949
2010	52,998,554	2,144,740	4,315,681	59,458,975
2011	51,052,360	2,360,106	4,764,525	58,176,991
January	4,565,605	201,135	404,491	5,171,230
February	3,546,333	174,654	479,022	4,200,009
March	4,780,797	204,977	414,662	5,400,436
April	4,042,927	151,103	357,969	4,551,999
May	4,789,347	189,482	481,799	5,460,628
June	4,475,901	199,101	425,302	5,100,304
July	4,631,765	207,212	433,449	5,272,426
August	3,934,382	183,567	355,189	4,473,137
September	4,688,381	196,382	434,126	5,318,889
October	3,994,946	191,730	424,733	4,611,409
November	4,021,060	207,720	468,278	4,697,058
December	4,581,557	212,193	438,571	5,232,321
2012 Total	**52,052,999**	**2,319,256**	**5,117,590**	**59,489,845**
January	4,560,012	175,520	444,863	5,180,394
February	4,723,542	122,145	446,184	5,291,870
March	4,831,661	177,836	398,502	5,407,998
April	3,906,454	173,209	334,362	4,414,025
May	4,549,866	185,334	443,810	5,179,010
June	4,709,465	165,922	421,408	5,296,795
July	4,726,577	172,925	406,578	5,306,080
August	4,795,342	187,668	406,797	5,389,807
September	4,481,616	177,519	438,102	5,097,236
October	4,613,887	198,964	474,069	5,286,920
November	4,627,646	170,281	457,515	5,255,442
December	4,194,393	203,343	445,487	4,843,224
2013 Total	**54,720,459**	**2,110,666**	**5,117,677**	**61,948,801**

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* Due to reporting time lag and well exemptions the above figures are different from actual production. See footnote in Appendix B.

Table 6

UNITED STATES OCS CRUDE OIL AND CONDENSATE PRODUCTION[12]

(Barrels)

YEAR	LOUISIANA	TEXAS	CALIFORNIA	TOTAL
1967	218,995,828	2,865,786	0	221,861,614
1968	263,825,359	3,110,642	2,059,889	268,995,890
1969	300,159,292	2,759,851	9,940,844	312,859,987
1970	333,411,492	2,247,048	24,987,628	360,646,168
1971	385,760,351	1,685,047	31,103,548	418,548,946
1972	387,590,662	1,733,018	22,562,213	411,885,893
1973	374,196,856	1,617,829	18,915,314	394,729,999
1974	342,435,496	1,381,825	16,776,744	360,594,065
1975	313,592,559	1,340,136	15,304,757	330,237,452
1976	301,887,002	1,054,554	13,978,553	316,920,109
1977	290,771,605	909,037	12,267,598	303,948,240
1978	278,071,535	2,107,599	12,085,908	292,265,042
1979	271,008,916	3,595,546	10,961,076	285,565,538
1980	256,688,082	10,502,007	10,198,886	277,388,975
1981	255,875,717	14,284,661	19,605,027	289,765,405
1982	275,513,489	17,263,766	28,434,202	321,211,457
1983	298,093,559	19,710,197	30,527,487	348,331,243
1984	318,024,622	21,960,086	30,254,306	370,239,014
1985	338,901,863	20,640,957	29,781,465	389,324,285
1986	340,152,276	19,835,882	29,227,846	389,216,004
1987	307,950,881	24,634,142	33,556,686	366,141,709
1988	261,936,530	26,115,776	32,615,118	320,667,424
1989	246,207,653	25,887,841	33,072,161	305,167,655
1990	264,670,535	24,970,114	33,312,719	324,423,181
1991	262,647,733	24,380,908	29,146,090	323,831,064
1992	288,918,208	23,639,788	41,222,801	346,053,626
1993	293,443,881	20,376,996	50,078,144	358,655,540
1994	293,077,191	26,819,958	57,229,464	371,300,873
1995	320,255,087	20,419,104	71,254,440	416,293,300
1996	349,101,048	25,841,553	67,804,200	436,634,538
1997	399,536,004	28,718,405	58,279,489	469,873,968
1998	425,865,901	27,837,631	40,636,231	484,861,417
1999	451,391,454	31,758,296	42,071,101	537,198,889
2000	477,645,662	35,044,216	34,373,524	557,370,524
2001	502,115,031	42,991,844	34,763,192	592,514,727
	GULF OF MEXICO		**PACIFIC**	**TOTAL**
	CENTRAL	**WESTERN**		
2002	478,652,767	88,169,359	29,783,000	596,606,889
2003	476,746,239	83,696,697	30,001,000	590,477,590
2004	447,625,460	86,932,724	27,052,000	561,629,979
2005	327,825,527	74,791,038	26,554,000	429,172,427
2006	393,445,174	76,794,758	26,113,000	496,352,933
2007	407,038,554	59,225,206	24,599,000	490,878,085
2008	371,922,492	48,984,103	24,145,000	445,092,125
2009	514,730,687	52,407,408	22,307,000	589,503,991
2010	507,518,966	52,110,604	21,702,000	581,368,099
2011	422,615,370	57,622,995	19,818,000	500,076,124
2012	391,357,024	72,182,602	17,956,000	481,515,385

NOTE: Starting in 2002 BOEM has not formally published production by state adjacent areas

Table 7

UNITED STATES CRUDE OIL AND CONDENSATE PRODUCTION AND IMPORTS

(Thousand barrels)

DATE	ALL OCS[7]	DOMESTIC PRODUCTION[7]	IMPORTS TOTAL[7]	IMPORTS SPR[7]
1992	343,461 r	2,624,632 r	2,226,341 r	3,594
1993	351,757 r	2,499,033 r	2,477,230 r	5,367
1994	371,331 r	2,431,476 r	2,578,072 r	4,485
1995	416,027 r	2,394,268 r	2,638,810 r	0
1996	438,063 r	2,366,017 r	2,747,839 r	0
1997	466,303 r	2,354,831 r	3,002,299 r	0
1998	494,621 r	2,281,919 r	3,177,584 r	0
1999	533,766 r	2,146,732 r	3,186,663 r	3,041
2000	558,242 r	2,130,707 r	3,319,816	3,006
2001	591,588 r	2,117,511 r	3,404,894	3,912
2002	599,484 r	2,096,588 r	3,336,175	5,767
2003	590,803 r	2,061,995 r	3,527,696	0
2004	562,755 r	1,991,404 r	3,692,063	0
2005	493,389 r	1,891,200 r	3,695,971	18,889
2006	497,994	1,857,035 r	3,693,081	3,086
2007	492,561	1,853,122 r	3,661,404	2,703
2008	447,315	1,829,897 r	3,580,694	7,113
2009	592,510	1,954,021 r	3,289,675	20,368
2010	585,147	1,996,787 r	3,362,856	**0**
2011	500,031	2,063,138 r	3,261,422	**0**
January	42,142 r	190,190 r	264,348 r	0
February	39,923 r	181,039 r	248,296 r	0
March	43,422 r	195,214 r	271,888 r	0
April	39,113 r	188,719 r	259,077 r	0
May	38,611 r	196,528 r	278,720 r	0
June	34,955 r	187,702 r	275,790 r	0
July	40,451 r	198,272 r	270,061 r	0
August	35,691 r	195,887 r	268,600 r	0
September	36,888 r	197,448 r	251,431 r	0
October	42,794 r	215,533 r	251,338 r	0
November	42,836	211,732	245,487	0
December	44,103	220,049	235,719	0
2012 Total	**480,929 r**	**2,378,313 r**	**3,120,755 r**	**0**
January	42,744	218,146	246,531	0
February	38,199	199,530	203,551	0
March	40,265	222,221	231,262	0
April	41,634	220,002	231,793	0
May	38,679	225,330	239,848	0
June	34,667	215,954	231,900	0
July	40,001	231,609	250,207	0
August	38,304	232,041	251,054	0
September	41,357	233,268	237,344	0
October	39,513	240,353	231,718	0
November	N/A	N/A	N/A	N/A
December	N/A	N/A	N/A	N/A
2013 Total	**395,363**	**2,238,454**	**2,355,208**	**0**

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Table 8

LOUISIANA STATE ROYALTY OIL, GAS AND PLANT PRODUCTS
CALCULATED VOLUMES, Excluding OCS

DATE	OIL (Barrels)	GAS (MCF)	PLANT LIQUIDS (Barrels)
1992	6,837,552	57,911,258	1,689,942
1993	6,721,350	67,052,274	698,857
1994	6,288,843	54,798,617	600,660
1995	6,385,269	57,013,225	925,825
1996	6,489,394	60,326,587	477,640
1997	6,534,913	60,778,002	1,440,435
1998	6,604,124	56,691,269	331,767
1999	6,030,138	51,051,870	204,124
2000	6,366,604	53,780,835	355,112
2001	7,059,789	65,034,347	983,641
2002	4,707,772	53,434,290	800,697
2003	4,910,469	53,135,969	1,459,006
2004	4,222,899	45,261,610	2,185,235
2005	3,340,640	34,454,802	1,101,153
2006	3,611,971 r	40,978,902 r	1,399,577 r
2007	4,554,260 r	43,242,493 r	1,416,364 r
2008	4,301,480 r	44,210,090 r	1,482,867 r
2009	4,094,544 r	41,624,043 r	721,985 r
2010	3,912,746 r	37,340,522 r	4,791,949 r
2011	3,878,453 r	42,042,011 r	5,515,474 r
January	349,621.95 r	3,580,940.07 r	336,315.10 r
February	303,182.85 r	3,352,982.91 r	387,299.68 r
March	331,385.35 r	3,607,452.77 r	456,685.47 r
April	328,697.69 r	3,554,690.27 r	379,710.99 r
May	338,396.39 r	3,590,614.90 r	452,448.16 r
June	323,006.85 r	3,554,633.26 r	406,038.70 r
July	348,442.21 r	3,728,468.21 r	409,093.36 r
August	290,745.26 r	3,203,130.84 r	364,217.89 r
September	251,722.73 r	3,447,803.55 r	346,124.98 r
October	342,592.26 r	3,814,014.55 r	597,895.01 r
November	333,812.12 r	3,999,016.60 r	718,781.93 r
December	350,625.57 r	4,123,093.64 r	864,761.52 r
2012 Total	**3,892,231.23 r**	**43,556,841.58 r**	**5,719,372.79 r**
January	343,668.40	4,033,398.36	722,275.25
February	310,029.20	3,477,868.52	667,965.01
March	342,487.17	3,867,080.41	747,735.47
April	323,226.92	3,484,974.82	865,336.71
May	340,406.94	4,013,613.38	866,563.44
June	332,638.50	3,604,880.07	957,387.74
July	322,964.13	3,651,891.14	1,028,623.06
August	354,599.23	3,601,087.14	904,130.24
September	335,338.58	3,652,369.36	790,144.62
October	332,196.04 p	3,635,115.88 p	907,632.64 p
November	340,711.28 p	3,629,524.13 p	867,302.50 p
December	336,081.97 p	3,639,003.12 p	855,026.58 p
2013 Total	**4,014,348.35 p**	**44,290,806.33 p**	**10,180,123.26 p**

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Table 9
LOUISIANA STATE NATURAL GAS PRODUCTION
WET AFTER LEASE SEPARATION
Excluding OCS and Casinghead Gas
(Thousand Cubic Feet (MCF) at 15.025 psia and 60 degrees Fahrenheit)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1992	347,457,229	1,027,264,984	95,668,773	1,470,390,986
1993	337,285,840	1,000,882,139	106,161,644	1,444,329,623
1994	334,991,404	963,252,221	111,049,367	1,409,292,992
1995	348,385,615	942,253,430	117,647,934	1,408,286,979
1996	390,027,306	968,846,558	142,807,837	1,501,681,701
1997	406,306,877	900,334,348	143,913,520	1,450,554,745
1998	386,628,112	891,315,044	127,056,460	1,404,999,616
1999	355,536,417	858,338,237	100,525,024	1,314,399,678
2000	358,193,670	880,522,742	94,251,610	1,332,968,022
2001	370,998,160	903,068,572	97,208,445	1,371,275,177
2002	370,358,148	803,816,704	87,069,617	1,261,244,469
2003	401,217,674	779,381,241	72,327,053	1,252,925,968
2004	462,100,053	741,913,556	59,881,419	1,263,895,028
2005	526,863,613	645,073,330	46,609,741	1,218,546,684
2006	562,637,880	659,271,052	62,090,012	1,283,998,944 r
2007	603,078,425	611,264,372	65,638,857	1,279,981,654 r
2008	676,366,985	542,411,847	79,919,444	1,298,698,276 r
2009	953,849,530	446,004,458	70,837,238	1,470,691,226 r
2010	1,689,467,691	361,799,595	62,180,025	2,113,447,311 r
2011	2,507,352,416	344,135,679	63,041,005	2,914,529,100 r
January	227,769,635 r	27,793,775 r	5,382,203 r	260,945,613 r
February	200,825,858 r	25,539,326 r	5,438,387 r	231,803,571 r
March	212,928,536 r	26,967,480 r	6,454,279 r	246,350,295 r
April	202,176,791 r	26,546,972 r	6,529,035 r	235,252,798 r
May	212,413,174 r	26,804,542 r	6,374,307 r	245,592,023 r
June	212,364,633 r	25,935,334 r	6,224,842 r	244,524,809 r
July	221,326,254 r	27,147,928 r	6,110,448 r	254,584,630 r
August	220,228,971 r	24,649,202 r	4,782,852 r	249,661,025 r
September	207,277,577 r	24,525,867 r	5,817,382 r	237,620,826 r
October	207,305,472 r	28,392,372 r	6,401,375 r	242,099,219 r
November	190,374,071 r	28,524,730 r	6,015,830 r	224,914,631 r
December	190,572,284 r	29,574,653 r	6,301,819 r	226,448,756 r
2012 Total	**2,505,563,256 r**	**322,402,181 r**	**71,832,759 r**	**2,899,798,196 r**
January	185,453,817	28,137,510	5,987,919	219,579,246
February	164,513,620	26,444,531	5,249,459	196,207,610
March	174,529,014	29,596,808	5,697,035	209,822,857
April	164,978,760	27,318,373	5,147,043	197,444,176
May	165,931,883	30,359,520	5,121,034	201,412,437
June	156,772,737	28,454,304	5,006,987	190,234,028
July	156,296,112	29,321,591	5,086,583	190,704,286
August	148,741,454	28,339,602	4,916,707	181,997,763
September	133,963,407	28,017,738	4,353,883	166,335,028
October	125,136,485	26,363,582	4,150,998	155,651,065
November	132,100,674 p	27,874,568 p	4,684,219 p	164,659,462 p
December	131,386,769 p	27,759,549 p	4,619,924 p	163,766,242 p
2013 Total	**1,839,804,732 p**	**337,987,676 p**	**60,021,792 p**	**2,237,814,200 p**

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Table 10

LOUISIANA STATE CASINGHEAD GAS PRODUCTION, WET AFTER LEASE SEPARATION, Excluding OCS

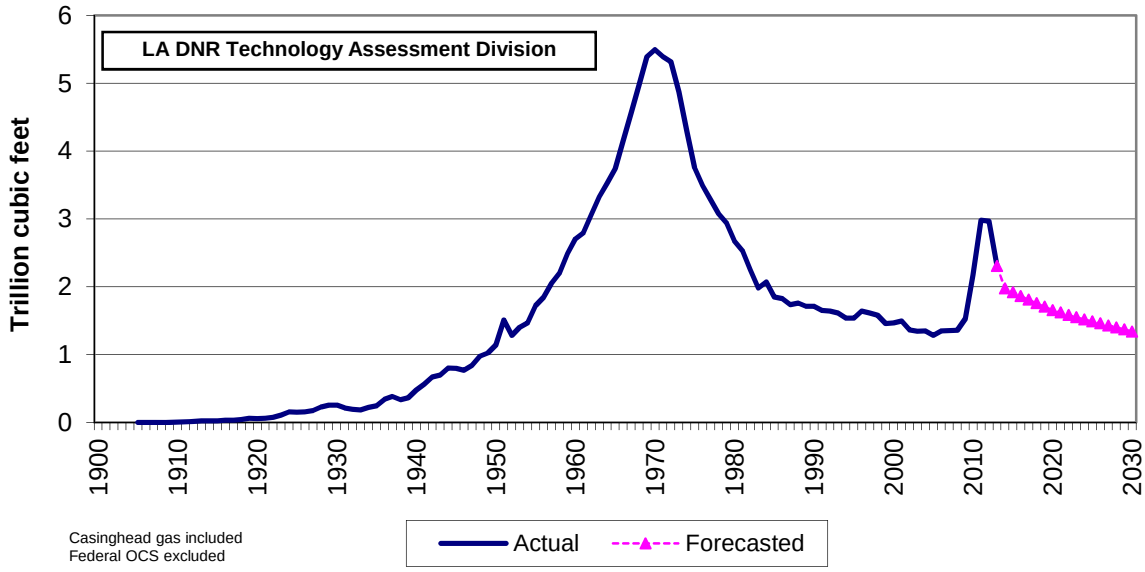
(Thousand Cubic Feet (MCF) at 15.025 psia and 60 degrees Fahrenheit)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1992	25,980,476	137,859,672	18,335,536	182,175,684
1993	23,009,433	136,674,314	17,880,673	177,564,420
1994	19,873,183	105,685,162	17,346,385	142,904,730
1995	18,829,476	104,638,062	18,858,344	142,325,882
1996	25,253,140	95,560,699	16,692,314	137,506,153
1997	35,537,210	107,984,665	17,042,997	160,564,872
1998	42,629,820	117,397,217	17,264,409	177,291,446
1999	29,943,303	99,043,293	15,304,875	144,291,471
2000	23,214,008	98,062,634	13,295,103	134,571,745
2001	19,843,912	90,200,751	14,001,877	124,046,540
2002	16,711,388	72,739,365	11,166,555	100,617,308
2003	15,270,654	65,328,195	11,086,256	91,685,105
2004	13,325,138	64,252,316	8,252,738	85,830,192
2005	11,006,284	48,525,678	6,876,708	66,408,670
2006	9,217,910 r	51,568,797 r	5,183,113 r	65,969,820 r
2007	8,385,917 r	61,102,107 r	5,842,664 r	75,330,688 r
2008	7,683,885 r	49,016,969 r	4,016,814 r	60,717,668 r
2009	7,104,630 r	46,254,642 r	4,025,491 r	57,384,763 r
2010	6,811,053 r	48,911,420 r	6,179,729 r	61,902,202 r
2011	7,009,113 r	53,450,303 r	6,811,915 r	67,271,331 r
January	694,502 r	4,567,968 r	691,859 r	5,954,329 r
February	625,405 r	4,199,081 r	565,950 r	5,390,436 r
March	616,576 r	4,500,839 r	477,709 r	5,595,124 r
April	633,490 r	4,519,648 r	390,966 r	5,544,104 r
May	612,796 r	4,894,410 r	421,141 r	5,928,347 r
June	588,216 r	4,540,572 r	430,822 r	5,559,610 r
July	620,066 r	4,540,110 r	387,243 r	5,547,419 r
August	597,044 r	3,929,970 r	335,597 r	4,862,611 r
September	566,313 r	3,493,984 r	229,865 r	4,290,162 r
October	628,118 r	4,761,397 r	320,183 r	5,709,698 r
November	623,637 r	4,825,900 r	324,089 r	5,773,626 r
December	670,657 r	4,814,386 r	391,306 r	5,876,349 r
2012 Total	**7,476,820 r**	**53,588,265 r**	**4,966,730 r**	**66,031,815 r**
January	700,780	4,529,232	344,605	5,574,617
February	633,035	3,975,018	273,986	4,882,039
March	697,568	4,406,931	329,955	5,434,454
April	560,804	4,548,495	333,174	5,442,473
May	587,466	4,641,126	473,130	5,701,722
June	554,207	4,712,044	430,445	5,696,696
July	583,144	5,025,385	396,288	6,004,817
August	574,712	4,961,719	428,499	5,964,930
September	477,426	4,710,166	442,467	5,630,059
October	539,934	4,489,977	591,273	5,621,184
November	543,155 p	4,760,739 p	455,048 p	5,758,942 p
December	540,956 p	4,770,439 p	459,939 p	5,771,333 p
2013 Total	**6,993,187 p**	**55,531,271 p**	**4,958,808 p**	**67,483,266 p**

e Estimated r Revised p Preliminary

Figure 4

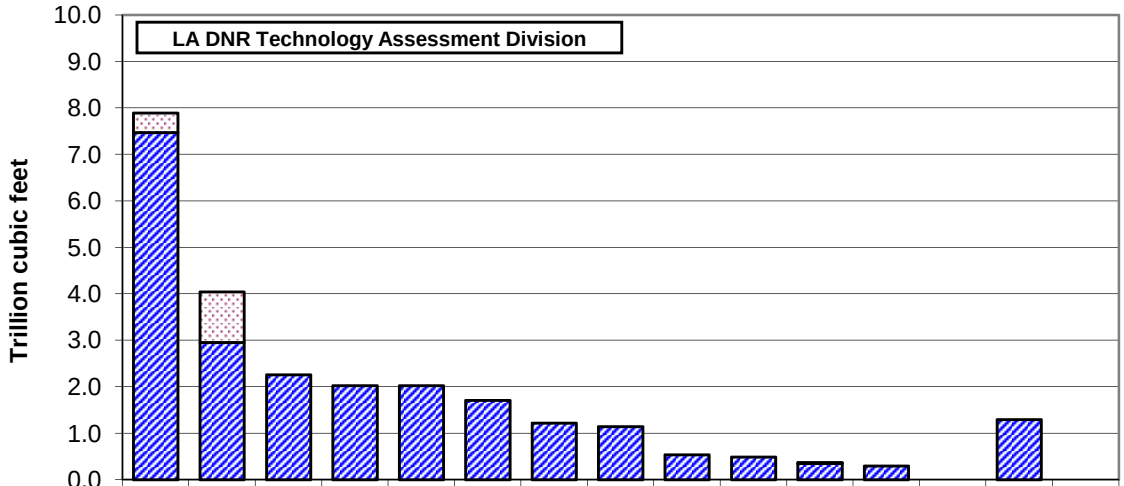
LOUISIANA STATE GAS PRODUCTION
Actual and Forecasted Through Year 2030



Casinghead gas included
Federal OCS excluded

Figure 5

2012 UNITED STATES MARKETED GAS PRODUCTION BY STATE



	TX	LA	PA	OK	WY	CO	NM	AR	WV	UT	AK	KS		Other	
Fed. OCS	0.4	1.1									0.0				
State	7.5	3.0	2.3	2.0	2.0	1.7	1.2	1.1	0.5	0.5	0.4	0.3		1.3	

Federal OCS Production estimated

Table 11

LOUISIANA STATE GAS PRODUCTION, WET AFTER LEASE SEPARATION

Natural Gas and Casinghead Gas, Excluding OCS

(Thousand Cubic Feet (MCF) at 15.025 psia and 60 degrees Fahrenheit)*

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1992	373,437,705	1,165,124,656	114,004,309	1,652,566,670
1993	360,295,273	1,137,556,453	124,042,317	1,621,894,043
1994	354,864,587	1,068,937,383	128,395,752	1,552,197,722
1995	367,215,091	1,046,891,492	136,506,278	1,550,612,861
1996	415,280,446	1,064,407,257	159,500,151	1,639,187,854
1997	441,844,087	1,008,319,013	160,956,517	1,611,119,617
1998	429,257,932	1,008,712,261	144,320,869	1,582,291,062
1999	385,479,720	957,381,530	115,829,899	1,458,691,149
2000	381,407,678	978,585,376	107,546,713	1,467,539,767
2001	390,842,072	993,269,323	111,210,322	1,495,321,717
2002	387,069,536	876,556,069	98,236,172	1,361,861,777
2003	416,488,328	844,709,436	83,413,309	1,344,611,073
2004	475,425,191	806,165,872	68,134,157	1,349,725,220
2005	537,869,897	693,599,008	53,486,449	1,284,955,354
2006	571,821,698 r	710,814,721 r	67,273,962 r	1,349,910,381 r
2007	611,476,442 r	672,290,544 r	71,412,494 r	1,355,179,480 r
2008	684,050,870 r	591,428,816 r	83,936,258 r	1,359,415,944 r
2009	960,954,160 r	492,259,100 r	74,862,729 r	1,528,075,989 r
2010	1,696,278,744 r	410,711,015 r	68,359,754 r	2,175,349,513 r
2011	2,514,361,529 r	397,585,982 r	69,852,920 r	2,981,800,431 r
January	228,464,137 r	32,361,743 r	6,074,062 r	266,899,942 r
February	201,451,263 r	29,738,407 r	6,004,337 r	237,194,007 r
March	213,545,112 r	31,468,319 r	6,931,988 r	251,945,419 r
April	202,810,281 r	31,066,620 r	6,920,001 r	240,796,902 r
May	213,025,970 r	31,698,952 r	6,795,448 r	251,520,370 r
June	212,952,849 r	30,475,906 r	6,655,664 r	250,084,419 r
July	221,946,320 r	31,688,038 r	6,497,691 r	260,132,049 r
August	220,826,015 r	28,579,172 r	5,118,449 r	254,523,636 r
September	207,843,890 r	28,019,851 r	6,047,247 r	241,910,988 r
October	207,933,590 r	33,153,769 r	6,721,558 r	247,808,917 r
November	190,997,708 r	33,350,630 r	6,339,919 r	230,688,257 r
December	191,242,941 r	34,389,039 r	6,693,125 r	232,325,105 r
2012 Total	**2,513,040,076 r**	**375,990,446 r**	**76,799,489 r**	**2,965,830,011 r**
January	186,154,597	32,666,742	6,332,524	225,153,863
February	165,146,655	30,419,549	5,523,445	201,089,649
March	175,226,582	34,003,739	6,026,990	215,257,311
April	165,539,564	31,866,868	5,480,217	202,886,649
May	166,519,349	35,000,646	5,594,164	207,114,159
June	157,326,944	33,166,348	5,437,432	195,930,724
July	156,879,256	34,346,976	5,482,871	196,709,103
August	149,316,166	33,301,321	5,345,206	187,962,693
September	134,440,833	32,727,904	4,796,350	171,965,087
October	125,676,419	30,853,559	4,742,271	161,272,249
November	132,643,829 p	32,635,307 p	5,139,267 p	170,418,403 p
December	131,927,725 p	32,529,988 p	5,079,863 p	169,537,576 p
2013 Total	**1,846,797,919 p**	**393,518,947 p**	**64,980,600 p**	**2,305,297,466 p**

e Estimated r Revised p Preliminary

* See Appendix D-1 for corresponding volumes at 14.73 psia and footnote in Appendix B.

Table 12

LOUISIANA TOTAL GAS PRODUCTION, WET AFTER LEASE SEPARATION

Natural Gas and Casinghead Gas

(Thousand Cubic Feet (MCF) at 15.025 psia and 60 degrees Fahrenheit)*

	ONSHORE	OFFSHORE		TOTAL
DATE		State	Federal OCS[12]	
1992	1,538,562,361	114,004,309	3,272,561,370	4,925,128,040
1993	1,497,851,726	124,042,317	3,320,312,261	4,942,206,304
1994	1,423,801,970	128,395,752	3,423,837,064	4,976,034,786
1995	1,414,106,583	136,506,278	3,564,677,663	5,115,290,524
1996	1,479,687,703	159,500,151	3,709,198,609	5,348,386,463
1997	1,450,163,100	160,956,517	3,825,354,038	5,436,473,655
1998	1,437,970,193	144,320,869	3,814,583,541	5,396,874,603
1999	1,342,861,250	115,829,899	3,836,619,562	5,295,310,711
2000	1,359,993,054	107,546,713	3,761,812,062	5,229,351,829
2001	1,384,111,395	111,210,322	3,818,657,416	5,313,979,133
2002	1,263,625,605	98,236,172	3,457,864,868	4,819,726,645
2003	1,261,197,764	83,413,309	3,276,387,510 e	4,620,998,583 e
2004	1,281,591,063	68,134,157	2,840,552,489 e	4,190,277,709 e
2005	1,231,468,905	53,486,449	2,185,591,643 e	3,470,546,997 e
2006	1,282,636,419	67,273,962	2,048,437,877 e	3,398,348,258 e
2007	1,283,766,986	71,412,494	2,022,058,582 e	3,377,238,062 e
2008	1,275,479,686 r	83,936,258	1,644,624,969 e	3,004,040,913 e r
2009	1,453,213,260 r	74,862,729 r	1,727,190,594 e	3,255,266,583 e r
2010	2,106,989,759 r	68,359,754 r	1,635,940,615 e r	3,811,290,128 e r
2011	2,911,947,511 r	69,852,920 r	1,328,201,169 e r	4,310,001,600 e r
January	260,825,880 r	6,074,062 r	103,353,757 e	370,253,699 e
February	231,189,670 r	6,004,337 r	95,468,969 e	332,662,976 e
March	245,013,431 r	6,931,988 r	103,318,143 e	355,263,562 e
April	233,876,901 r	6,920,001 r	94,985,485 e	335,782,387 e
May	244,724,922 r	6,795,448 r	91,773,642 e	343,294,012 e
June	243,428,755 r	6,655,664 r	85,299,533 e	335,383,952 e
July	253,634,358 r	6,497,691 r	96,663,273 e	356,795,322 e
August	249,405,187 r	5,118,449 r	80,778,891 e	335,302,527 e
September	235,863,741 r	6,047,247 r	78,961,290 e	320,872,278 e
October	241,087,359 r	6,721,558 r	93,183,535 e	340,992,452 e
November	224,348,338 r	6,339,919 r	94,668,888 e	325,357,145 e
December	225,631,980 r	6,693,125 r	92,316,531 e	324,641,636 e
2012 Total	**2,889,030,522 r**	**76,799,489 r**	**1,110,771,937 e**	**4,076,601,948 e**
January	218,821,339	6,332,524	88,293,645 e	313,447,508 e
February	195,566,204	5,523,445	80,739,297 e	281,828,946 e
March	209,230,321	6,026,990	86,677,260 e	301,934,571 e
April	197,406,432	5,480,217	85,067,539 e	287,954,188 e
May	201,519,995	5,594,164	83,890,532 e	291,004,691 e
June	190,493,292	5,437,432	75,500,678 e	271,431,402 e
July	191,226,232	5,482,871	82,955,414 e	279,664,517 e
August	182,617,487	5,345,206	82,524,373 e	270,487,066 e
September	167,168,737	4,796,350	81,319,182 e	253,284,269 e
October	156,529,978	4,742,271	81,301,323 e	242,573,572 e
November	165,279,136 p	5,139,267 p	N/A	170,418,403 p
December	164,457,713 p	5,079,863 p	N/A	169,537,576 p
2013 Total	**2,240,316,866 p**	**64,980,600 p**	**828,269,243 e**	**3,133,566,709 e p**

e Estimated r Revised p Preliminary

* See Appendix D-2 for corresponding volumes at 14.73 psia and footnote in Appendix B.

Figure 6

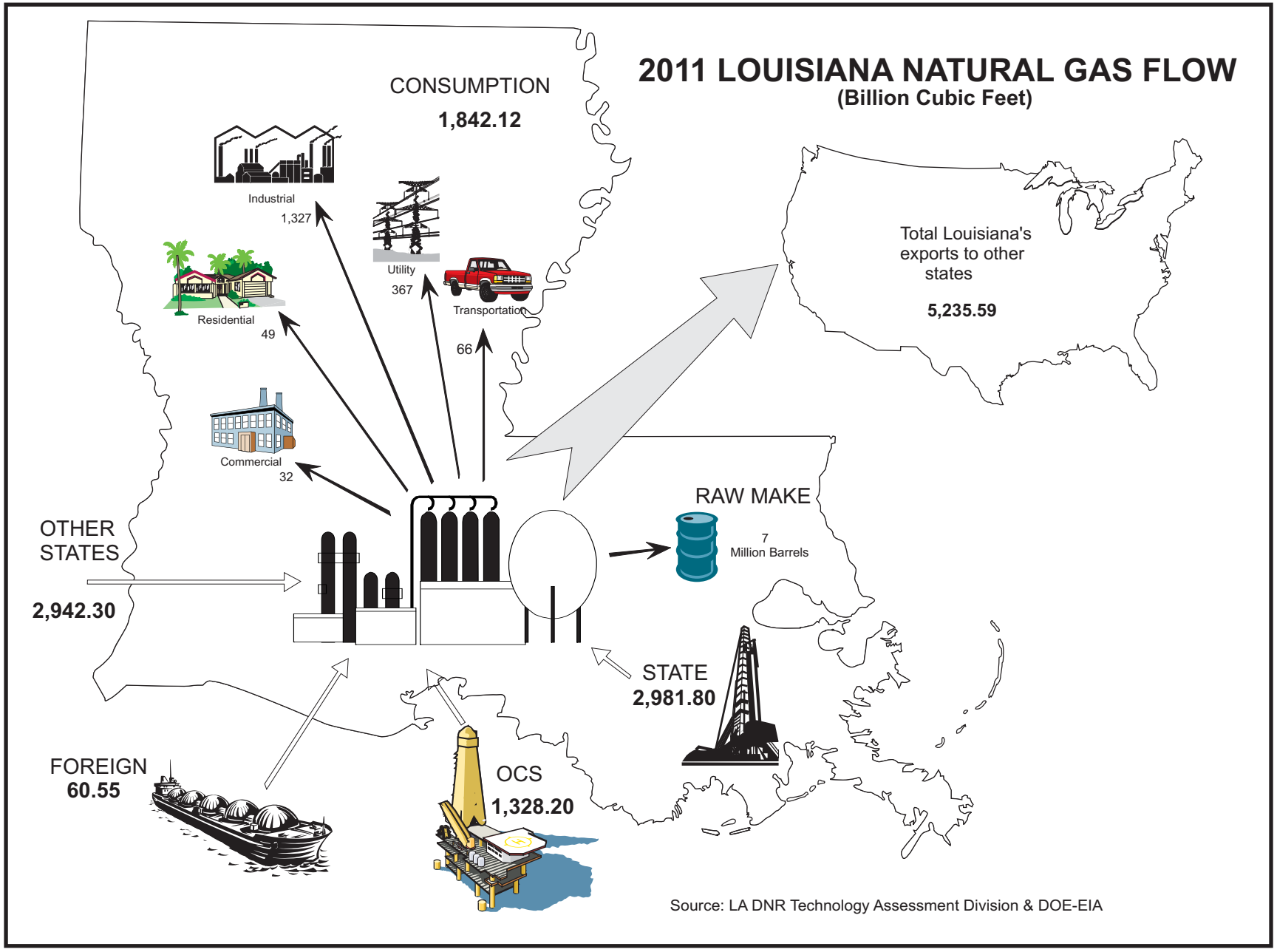

2011 LOUISIANA NATURAL GAS FLOW
(Billion Cubic Feet)
CONSUMPTION
1,842.12
Industrial
1,327
Utility
367
Transportation
66
Residential
49
Commercial
32
Total Louisiana's exports to other states
5,235.59
RAW MAKE
7
Million Barrels
OTHER STATES
2,942.30
STATE
2,981.80
OCS
1,328.20
FOREIGN
60.55
Source: LA DNR Technology Assessment Division & DOE-EIA

Table 13

GULF OF MEXICO MARKETED GAS PRODUCTION[3]

(Billion Cubic Feet (BCF) at 15.025 psia and 60 degrees Fahrenheit)

DATE	Alabama	Florida	Louisiana	Federal OCS GOM		Mississippi	Texas
1971	0.3	0.9	7,923.2	N/A	**	116.5	8,382.8
1972	3.6	15.2	7,816.1	N/A	**	101.9	8,487.9
1973	11.0	33.2	8,080.6	N/A	**	97.7	8,346.7
1974	27.3	37.4	7,601.4	N/A	**	77.2	8,010.4
1975	37.1	43.5	6,951.4	N/A	**	72.9	7,338.8
1976	40.6	42.3	6,869.0	N/A	**	69.4	7,050.7
1977	56.1	47.2	7,073.3	N/A	**	81.4	6,912.6
1978	83.9	50.6	7,329.7	N/A	**	104.5	6,419.6
1979	84.1	49.2	7,123.6	N/A	**	141.2	7,033.8
1980	64.0	39.8	6,803.7	N/A	**	171.6	6,976.2
1981	77.7	31.8	6,647.1	N/A	**	177.7	6,774.4
1982	73.5	22.1	6,050.5	N/A	**	163.9	6,341.8
1983	89.0	20.6	5,227.4	N/A	**	148.2	5,822.0
1984	99.8	12.3	5,710.7	N/A	**	154.8	6,063.6
1985	105.2	10.3	4,915.3	N/A	**	141.3	5,933.8
1986	105.1	8.7	4,799.3	N/A	**	138.1	6,031.0
1987	114.9	8.1	5,021.9	N/A	**	137.0	6,006.0
1988	127.0	7.3	5,078.6	N/A	**	121.6	6,162.6
1989	125.9	7.4	4,978.4	N/A	**	100.6	6,118.9
1990	132.6	6.4	5,139.1	N/A	**	92.8	6,218.6
1991	167.5	4.8	4,935.5	N/A	**	105.9	6,157.3
1992	348.1	6.5	4,817.8	N/A	**	89.9	6,025.2
1993	380.4	6.9	4,893.1	N/A	**	79.1	6,126.9
1994	505.2	7.3	5,068.2	N/A	**	62.2	6,229.1
1995	509.5	6.3	5,008.1	N/A	**	93.7	6,205.8
1996	520.4	5.9	5,185.9	N/A	**	101.2	6,343.6
1997	381.0	6.0	1,475.5	5,103.8		105.2	5,065.9
1998	384.7	5.7	1,521.5	4,976.8		105.9	5,124.8
1999	374.2	5.8	1,536.2	4,931.0		108.8	4,955.2
2000	356.3	6.4	1,426.4	4,837.5		86.8	5,178.4
2001	349.8	5.6	1,472.6	4,928.9		105.4	5,179.0
2002	349.1	3.3	1,335.0	4,423.4		110.8	5,040.1
2003	339.3	3.0	1,323.9	4,319.9		131.3	5,140.6
2004	309.8	3.1	1,326.7	3,891.5		62.1	4,967.8
2005	290.7	2.6	1,270.6	3,070.6		51.9	5,172.8
2006	280.6	2.5	1,334.4	2,845.0		59.3	5,439.1
2007	265.1	1.7	1,338.5	2,743.8		72.0	6,003.0
2008	252.8	2.4	1,350.9	2,268.9		94.7	6,824.0
2009	231.4	0.3	1,518.2	2,381.2		86.4	6,685.1
2010	218.6	12.2	2,166.7	2,201.0		72.3	6,583.4
2011	191.7	14.8	2,969.7	1,776.7		79.9	6,973.2
2012	211.5	18.3	2,897.4	1,478.0		62.6	7,328.7

e Estimated r Revised p Preliminary

** Prior to 1997 Federal OCS GOM production were included in state productions

Table 14

LOUISIANA STATE GAS PRODUCTION BY TAX RATES

AS PUBLISHED IN SEVERANCE TAX REPORTS[8]

(MCF at 15.025psia and 60 degrees Fahrenheit)

DATE	FULL RATE	INCAPABLE GAS WELLS RATE	OTHER RATES	TAXED VOLUME
1992	1,499,489,622	55,146,661	25,466,874	1,580,103,157
1993	1,463,723,027	46,017,071	13,839,450	1,523,579,548
1994	1,410,035,722	52,417,334	13,688,870	1,476,141,926
1995	1,334,980,887	53,491,942	13,759,192	1,402,232,021
1996	1,354,105,430	52,368,159	11,191,715	1,417,665,304
1997	1,343,182,922	57,663,413	9,951,387	1,410,797,722
1998	1,191,471,607	60,242,544	11,733,098	1,263,447,249
1999	1,151,493,116	57,308,865	10,617,631	1,219,419,612
2000	1,217,171,149	53,797,867	8,195,799	1,279,164,815
2001	1,264,513,132	74,687,708	7,806,688	1,347,007,528
2002	1,068,512,639	75,724,074	7,748,258	1,151,984,971
2003	1,091,483,424	80,659,914	7,963,553	1,180,106,891
2004	1,139,626,885	83,441,736	5,507,456	1,235,308,986
2005	1,130,014,025	91,951,579	4,642,451	1,227,085,699
2006	1,134,544,485	113,490,843	5,545,802	1,253,870,355
2007	1,070,511,169	122,399,829	7,365,200	1,200,461,343
2008	1,044,876,723	137,853,642	6,398,792	1,189,129,157
2009	994,356,639	168,793,831	4,489,808	1,167,640,278
2010	874,590,391	177,946,449	7,737,200	1,060,274,040
2011	729,242,365	179,471,125	9,251,347	917,964,837
January	77,899,567	17,164,101	511,653	95,575,321
February	103,164,175	14,817,578	356,483	118,338,236
March	57,345,517	14,604,192	351,233	72,300,942
April	39,904,320	14,061,217	529,303	54,494,840
May	94,352,970	14,399,807	585,375	109,338,152
June	104,016,119	14,413,685	581,259	119,011,063
July	95,116,546	14,785,776	570,826	110,473,148
August	69,015,147	13,827,521	722,224	83,564,892
September	50,753,489	15,176,791	583,749	66,514,029
October	88,997,554	14,917,412	646,082	104,561,048
November	22,650,826	14,048,976	540,035	37,239,837
December	51,692,534	14,361,298	677,532	66,731,364
2012 Total	**854,908,764**	**176,578,354**	**6,655,754**	**1,038,142,872**
January	-184,432	15,028,263	727,767	15,571,598
February	-36,216,034	14,370,217	691,158	-21,154,659
March	51,413,001	14,268,183	775,027	66,456,211
April	66,130,286	12,807,887	737,551	79,675,724
May	82,393,040	15,657,354	800,170	98,850,564
June	82,153,418	13,812,606	671,378	96,637,402
July	85,312,090	15,068,005	687,945	101,068,040
August	79,834,997	14,546,743	665,771	95,047,511
September	74,885,638	14,872,275	733,767	90,491,680
October	90,650,037	15,500,910	753,487	106,904,434
November	84,370,153	13,762,914	754,022	98,887,089
December	97,472,333	14,361,130	766,479	112,599,942
2013 Total	**758,214,527**	**174,056,487**	**8,764,522**	**941,035,536**

e Estimated r Revised p Preliminary

See footnote in Appendix B.

Table 15

UNITED STATES OCS GAS PRODUCTION[12]

Natural Gas and Casinghead Gas

(MCF at 15.025 psia and 60 degrees Fahrenheit)*

YEAR	LOUISIANA	TEXAS	CALIFORNIA	TOTAL
1968	1,385,715,670	107,752,805	783,984	1,494,252,460
1969	1,786,760,423	124,601,568	4,750,708	1,916,112,699
1970	2,228,516,212	130,683,192	11,989,041	2,371,188,444
1971	2,582,297,962	124,857,371	15,363,786	2,722,519,119
1972	2,824,792,196	144,267,198	9,836,582	2,978,895,976
1973	2,995,634,220	145,754,588	7,143,485	3,148,532,293
1974	3,283,413,450	156,838,375	5,464,209	3,445,716,035
1975	3,266,745,456	120,166,178	3,874,047	3,390,785,681
1976	3,431,149,749	90,764,667	3,406,969	3,525,321,386
1977	3,575,898,616	85,236,246	5,417,963	3,666,552,825
1978	4,068,255,571	227,305,175	5,166,292	4,300,727,039
1979	4,076,873,552	501,546,069	5,431,822	4,583,851,442
1980	3,934,902,550	612,378,333	5,900,023	4,553,180,906
1981	4,025,867,929	715,937,640	12,763,307	4,754,568,877
1982	3,729,057,653	841,173,981	17,751,924	4,587,983,558
1983	3,111,576,348	834,112,318	24,168,292	3,969,856,958
1984	3,508,475,799	913,008,621	46,363,899	4,467,848,319
1985	3,055,687,773	818,533,627	64,558,213	3,938,779,613
1986	2,870,347,386	959,161,285	59,078,021	3,888,586,692
1987	3,117,669,167	1,180,839,487	54,805,158	4,353,313,812
1988	3,036,077,646	1,155,285,485	49,167,638	4,240,530,769
1989	2,947,545,132	1,142,237,197	50,791,912	4,140,574,242
1990	3,633,554,307	1,321,607,333	49,972,764	5,005,134,404
1991	3,225,373,562	1,161,671,524	51,855,577	4,438,900,663
1992	3,272,561,370	1,215,055,449	55,231,660	4,608,807,577
1993	3,320,312,261	1,007,755,289	52,150,277	4,455,275,861
1994	3,423,837,064	994,291,314	53,560,686	4,578,282,175
1995	3,564,677,663	890,682,224	54,790,061	4,619,222,806
1996	3,709,198,609	953,772,416	66,783,677	4,955,474,989
1997	3,825,354,038	946,381,458	73,344,546	5,010,736,875
1998	3,814,583,541	850,572,237	74,984,850	4,789,522,576
1999	3,836,619,562	798,140,396	77,809,430	4,935,623,726
2000	3,761,812,062	869,068,079	76,074,550	4,919,901,921
2001	3,818,657,416	898,035,393	70,946,682	5,145,905,423

	GULF OF MEXICO		PACIFIC	TOTAL
	CENTRAL	WESTERN		
2002	3,510,522,709	999,720,152	67,816,000	4,607,640,353
2003	3,326,281,736	1,065,770,532	58,095,000	4,503,195,666
2004	2,883,809,634	1,099,125,084	54,655,000	4,104,828,091
2005	1,935,105,938	773,450,925	54,088,000	2,764,108,550
2006	2,122,733,551	779,987,637	40,407,000	2,943,406,324
2007	2,095,397,494	635,587,701	45,516,000	2,822,458,130
2008	1,704,274,579	481,863,516	44,902,000	2,370,112,660
2009	1,789,834,812	466,958,100	41,229,000	2,477,584,901
2010	1,695,539,757 r	412,776,657 r	41,200,000	2,272,131,363
2011	1,376,007,547 r	338,242,213 r	36,579,000 r	1,858,757,378 r
2012	1,149,183,637	310,558,713	27,262,000	1,533,491,864

NOTE: Starting in 2002 MMS has not formally published production by state adjacent areas

e Estimated r Revised p Preliminary

* See Appendix D-4 for corresponding volumes at 14.73 psia and footnote in Appendix B.

Figure 7

LOUISIANA OIL PRODUCTION AND PRICE

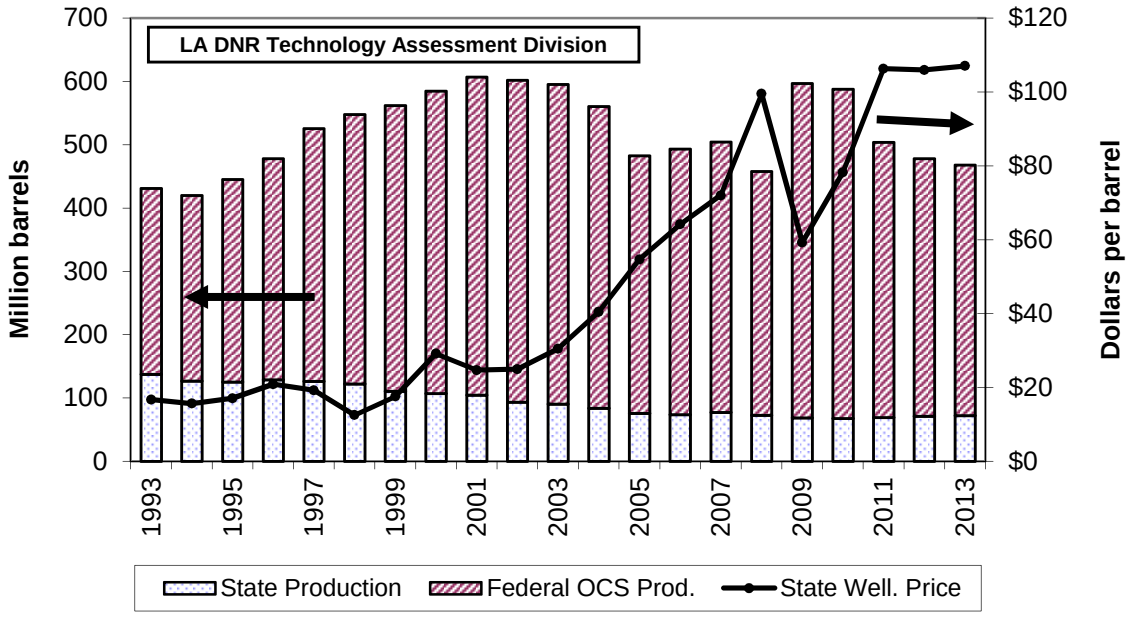


Figure 8

LOUISIANA GAS PRODUCTION AND PRICE

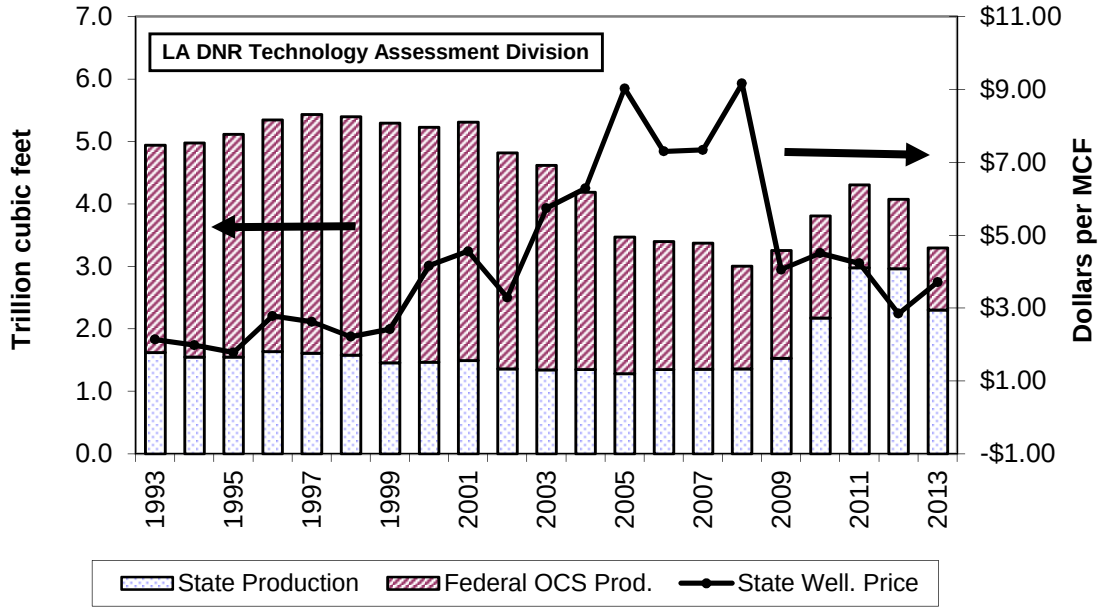


Table 16

UNITED STATES NATURAL GAS AND CASINGHEAD GAS PRODUCTION[3]

(Billion Cubic Feet (BCF) at 15.025 psia and 60 degrees Fahrenheit)*

DATE	GROSS	WET AFTER LEASE SEPARATION	MARKETED	DRY	GROSS IMPORTS
1992	21,698	18,509	18,344	17,490	2,096
1993	22,279	18,832	18,609	17,740	2,304
1994	23,118	19,547	19,323	18,451	2,572
1995	23,277	19,402	19,123	18,233	2,785
1996	23,640	19,690	19,423	18,484	2,880
1997	23,737	19,727	19,475	18,531	2,935
1998	23,635	19,670	19,569	18,650	3,090
1999	23,355	19,524	19,416	18,462	3,515
2000	23,699	19,890	19,801	18,805	3,707
2001	24,020	20,261	20,166	19,231	3,899
2002	23,471	19,592	19,530	18,591	3,937
2003	23,645	19,678	19,582	18,724	3,866
2004	23,499	19,230	19,134	18,226	4,175
2005	22,996	18,672	18,555	17,696	4,256
2006	23,046	19,156	19,001	18,113	4,104
2007	24,108	19,940	19,626	18,714	4,517
2008	25,133	20,861	20,698	19,763	3,906
2009	25,545	21,385	21,223	20,219	3,678
2010	26,290	22,105	21,942	20,897	3,667
2011	27,920	23,720	23,564	22,452	3,401
January	2,521 r	2,129 r	2,113 r	2,008 r	276 r
February	2,314 r	1,952 r	1,938 r	1,842 r	265 r
March	2,475 r	2,096 r	2,079 r	1,976 r	260 r
April	2,370 r	2,023 r	2,006 r	1,907 r	238 r
May	2,442 r	2,099 r	2,081 r	1,978 r	254 r
June	2,330 r	2,022 r	2,001 r	1,903 r	255 r
July	2,417 r	2,143 r	2,122 r	2,017 r	276 r
August	2,327 r	2,131 r	2,112 r	2,007 r	276 r
September	2,363 r	2,075 r	2,055 r	1,954 r	253 r
October	2,507 r	2,146 r	2,128 r	2,023 r	248 r
November	2,423 r	2,079 r	2,063 r	1,961 r	229 r
December	2,474 r	2,129 r	2,113 r	2,008 r	247 r
2012 Total	**28,962** r	**25,024** r	**24,811** r	**23,585** r	**3,076** r
January	2,486	2,102	2,085	1,982	273
February	2,262	1,921	1,904	1,808	232
March	2,486	2,112	2,094	1,986	243
April	2,425	2,061	2,045	1,940	216
May	2,491	2,141	2,124	2,016	230
June	2,396	2,072	2,056	1,951	232
July	2,500	2,162	2,145	2,035	232
August	2,496	2,171	2,151	2,036	232
September	2,418	2,082	2,065	1,951	240
October	2,524	2,170	2,153	2,036	205
November	N/A	N/A	N/A	N/A	N/A
December	N/A	N/A	N/A	N/A	N/A
2013 Total	**24,485**	**20,994**	**20,821**	**19,741**	**2,334**

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* See Appendix D-4 for corresponding volumes at 14.73 psia and footnote in Appendix B.

Table 17

LOUISIANA AVERAGE CRUDE OIL PRICES

(Dollars per Barrel)

	LIGHT LOUISIANA SWEET		ALL GRADES AT WELLHEAD			
	Spot	Refinery		OCS	Severance	State
DATE	Market[10]	Posted	State[6]	Gulf[6]	Tax[8]	Royalty
1992	20.77	19.72	19.01	18.38	19.31	19.10
1993	18.56	17.27	16.72	16.17	17.39	16.84
1994	17.25	15.84	15.61	14.72	15.46	15.52
1995	18.60	17.16	17.06	16.16	16.98	17.06
1996	22.32	20.77	20.87	20.00	20.56	21.24
1997	20.69	18.90	19.23	18.63	19.80	19.22
1998	14.21	12.17	12.52	12.03	13.47	12.31
1999	19.00	16.73	17.55	16.46	16.09	17.22
2000	30.29	27.88	29.14	27.57	28.10	25.96
2001	25.84	23.23	24.70	23.36	26.23	19.81
2002	26.18	23.14	24.92	23.36	25.17	24.39
2003	31.20	27.88	30.50	28.69	30.28	29.77
2004	41.47	37.85	40.43	37.54	38.34	39.06
2005	56.86	52.75	54.68	50.97	54.62	52.20
2006	67.44	62.41	64.17	60.62	63.55	63.08
2007	74.60	68.96	71.98	67.62	64.14	71.87
2008	102.29	96.57	99.53	100.00	104.86	97.60
2009	64.28	59.04	59.27	57.57	52.78	57.54
2010	82.72	75.90	78.23	77.13	75.24	77.80
2011	112.24	93.61	106.30	106.19	101.40	108.90
January	111.81	98.43	107.15	106.09	117.12	137.43 r
February	120.45	100.69	109.16	108.66	102.83	110.83
March	127.39	105.88	118.36	116.12	106.37	122.35 r
April	122.51	103.67	118.48	119.85	107.01	122.22
May	108.00	94.65	109.44	113.75	120.26	112.92
June	94.90	81.54	92.66	101.19	119.04	95.25
July	103.49	86.75	96.63	93.59	108.84	98.41
August	111.77	93.25	103.95	95.02	94.34	105.80 r
September	112.99	94.46	107.47	105.69	98.75	109.66 r
October	110.24	89.22	102.44	104.53	103.71	104.35 r
November	108.51	86.72	101.67 r	102.72 r	101.77	104.56 r
December	109.47	89.24 r	104.32 r	103.03 r	109.51	106.86 r
2012 Total	**111.79**	**93.71**	**105.98 r**	**105.85 r**	**107.46**	**110.89 r**
January	112.73	94.94	110.29	107.02	102.89	112.82
February	116.30	95.57	108.10	107.62	105.56	110.45
March	112.82	93.20	107.53	110.10	107.00	110.73
April	105.42	91.93	106.96	108.40	114.38	110.20
May	104.27	93.96	104.54	103.51	110.61	106.63
June	104.19	91.75	102.10	101.45	103.20	103.12
July	110.52	100.81	109.82	104.50	103.11	117.07
August	110.95	103.06 p	110.19	107.71	100.94	110.44
September	108.17	102.76 p	109.12	106.87	114.20	109.34
October	102.85	97.15 p	101.81	101.57	108.42	93.34
November	97.18	92.12 p	N/A	N/A	104.73	104.37 p
December	102.79	96.46 p	N/A	N/A	106.02	102.35 p
2013 Total	**107.35**	**96.14 p**	**107.05**	**105.88**	**106.75**	**107.57 p**

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See footnote in Appendix B.

Figure 9

CRUDE OIL AVERAGE PRICES

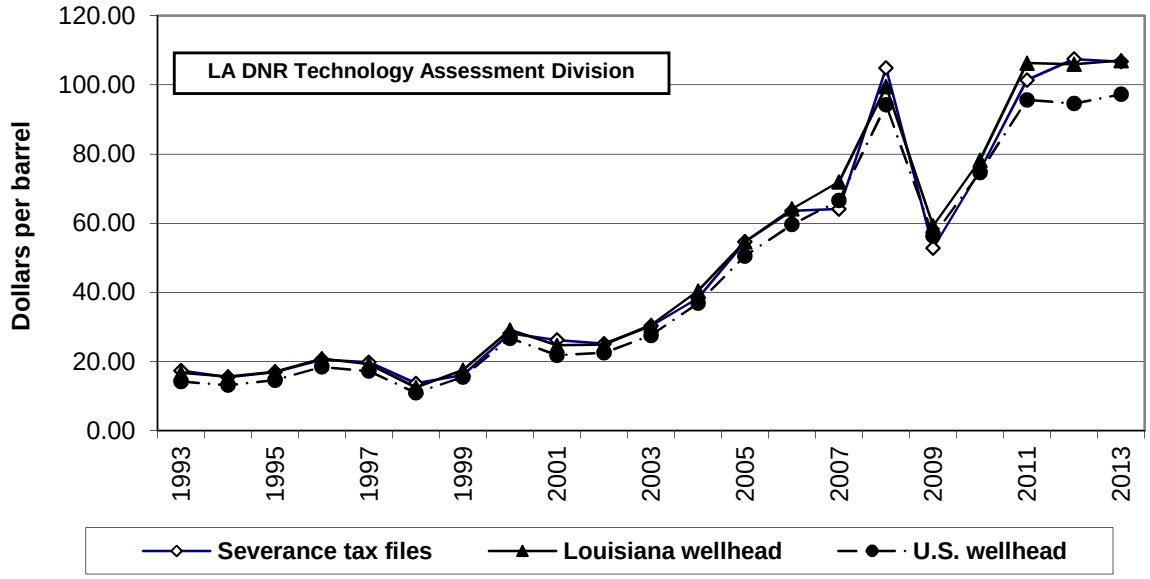

Figure 10

NATURAL GAS AVERAGE PRICES

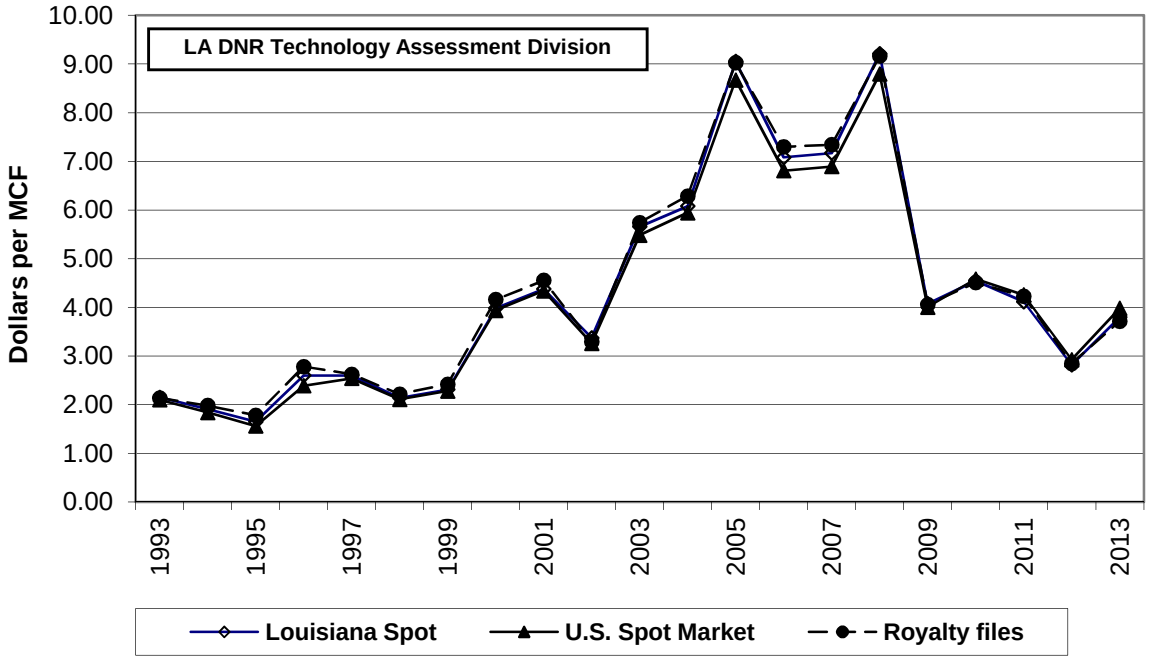

Table 18

UNITED STATES AVERAGE CRUDE OIL PRICES [2]

(Dollars per Barrel)

DATE	REFINERY ACQUISITION		DOMESTIC	IMPORTS	IMPORTS	IMPORTS
	Domestic Costs	Imports Costs	WELLHEAD	LANDED	FOB	OPEC FOB
1993	16.66	16.17	14.24	15.75	14.72	14.72
1994	15.64	15.41	13.19	15.07	14.13	13.94
1995	17.32	17.15	14.62	16.77	15.69	15.35
1996	20.81	20.60	18.46	20.27	19.24	18.87
1997	19.65	18.55	17.23	18.14	16.98	16.33
1998	13.15	12.35	10.94	11.86	10.75	10.17
1999	17.64	17.27	15.53	17.38	16.48	16.01
2000	29.08	27.68	26.72	27.54	26.26	25.55
2001	24.34	21.99	21.90	21.77	20.45	19.56
2002	24.56	23.63	22.50	23.82	22.57	22.19
2003	29.78	27.87	27.54	27.83	26.06	25.61
2004	38.97	35.79	36.86	36.05	33.73	33.99
2005	53.05	48.93	50.53	49.41	47.74	49.75
2006	62.50	58.89	59.65	59.03	57.03	59.17
2007	69.56	67.13	66.56	67.86	66.12	68.98
2008	98.09	92.30	94.22	92.14	89.45	91.23
2009	58.95	59.37	56.31	60.30	58.12	58.92
2010	77.90	75.94	74.65	76.51	74.21	75.31
2011	100.63 r	102.57 r	95.69 r	102.94 r	101.65 r	105.31 r
January	103.97	105.25	98.99	105.27	103.96	107.51
February	105.93	108.08	102.04	109.23 r	108.56	113.85
March	110.80	111.00	105.42	110.62 r	110.65 r	117.06
April	111.22	108.54	103.62	107.55 r	107.17	113.85
May	103.04	103.26	95.57	101.56	100.79	105.28
June	91.66	92.18	83.59	91.90	87.89	90.63
July	92.64	92.99	86.10	93.68 r	92.50	96.30
August	98.58	97.04 r	92.53 r	98.70 r	99.63 r	104.18 r
September	102.17	101.82	95.98 r	101.34 r	101.03 r	105.05 r
October	99.07 r	100.92	92.24 r	99.22 r	97.75 r	101.29 r
November	95.28 r	98.07 r	89.64 r	96.20 r	91.86 r	95.94 r
December	96.56 r	93.70 r	89.81 r	95.01 r	92.69 r	98.04 r
2012 Total	**100.91 r**	**101.07 r**	**94.63 r**	**100.86 r**	**99.54 r**	**104.08 r**
January	103.78	97.91	94.89	95.19	95.23	102.42
February	103.75	99.23	95.04	99.09	100.94	106.93
March	103.45	99.11	95.85	98.51	100.21	105.77
April	102.53	96.45	94.72	95.72	95.56	98.68
May	101.98	98.50	95.00	97.41	96.20	98.72
June	98.67	100.26	94.05	96.90	96.22	98.45
July	103.85	106.19	101.61	101.19	101.37	102.36
August	106.20	108.30	103.14	103.11	101.89	103.69
September	105.70	107.96	102.45	102.05	100.97	104.42
October	100.52	103.35	96.24	95.74	95.04	97.39
November	93.83	97.15	N/A	N/A	N/A	N/A
December	N/A	N/A	N/A	N/A	N/A	N/A
2013 Total	**102.21**	**101.31**	**97.30**	**98.49**	**98.36**	**101.88**

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See footnote in Appendix B.

Table 19

LOUISIANA NATURAL GAS WELLHEAD PRICES (MCF)

(Dollars/Thousand Cubic Feet)

DATE	GOM Federal OCS[12]	DNR State Royalty	HENRY HUB Settled NYMEX	HENRY HUB Cash Spot	SPOT MARKET[5] Low	SPOT MARKET[5] High	SPOT MARKET[5] Average
1993	2.18	2.14	2.19	N/A	2.08	2.21	2.15
1994	2.10	1.98	1.97	N/A	1.86	1.95	1.91
1995	1.61	1.78	1.70	1.75	1.62	1.68	1.65
1996	2.37	2.78	2.69	2.87	2.47	2.69	2.60
1997	2.63	2.62	2.69	2.63	2.54	2.67	2.60
1998	2.36	2.22	2.19	2.17	2.08	2.18	2.14
1999	2.18	2.42	2.36	2.36	2.25	2.36	2.31
2000	3.59	4.16	4.04	4.39	3.92	4.03	3.98
2001	4.05	4.55	4.44	4.11	4.27	4.47	4.38
2002	2.98	3.29	3.39	3.48	3.29	3.43	3.37
2003	5.12	5.74	5.61	5.71	5.32	5.92	5.66
2004	6.04	6.29	6.39	6.14	5.98	6.18	6.08
2005	6.84 r	9.03	8.96	9.19	8.84	9.26	9.05
2006	8.24 r	7.35	7.54	7.00	6.91	7.24	7.08
2007	6.86 r	7.39	7.13	7.26	7.08	7.29	7.17
2008	9.04 r	9.17	9.40	9.23	9.12	9.34	9.21
2009	5.03 r	4.05	4.15	3.95	3.98	4.16	4.07
2010	4.10 r	4.51	4.57	4.39	4.47	4.61	4.55
2011	4.48 r	4.23	4.20	4.00	4.04	4.17	4.11
January	N/A	3.01 r	3.21	2.68	2.79	2.91	2.85
February	N/A	2.73	2.79	2.50	2.60	2.69	2.65
March	N/A	2.41	2.54	2.16	2.22	2.35	2.29
April	N/A	2.15 r	2.28	1.95	1.97	2.07	2.04
May	N/A	2.39	2.12	2.43	2.32	2.45	2.39
June	N/A	2.49 r	2.53	2.46	2.36	2.48	2.43
July	N/A	2.93 r	2.88	2.95	2.88	2.99	2.96
August	N/A	2.99 r	3.13	2.84	2.90	3.02	2.97
September	N/A	2.79	2.74	2.85	2.74	2.87	2.81
October	N/A	3.29 r	3.14	3.32	3.21	3.35	3.29
November	N/A	3.49 r	3.61	3.54	3.52	3.65	3.59
December	N/A	3.50 r	3.84	3.34	3.46	3.59	3.52
2012 Total	**3.07 r**	**2.85 r**	**2.90**	**2.75**	**2.75**	**2.87**	**2.82**
January	N/A	3.26	3.49	3.33	3.37	3.50	3.45
February	N/A	3.34	3.36	3.33	3.30	3.40	3.37
March	N/A	3.72	3.56	3.81	3.70	3.82	3.78
April	N/A	4.15	4.14	4.17	4.17	4.29	4.25
May	N/A	4.12	4.32	4.04	4.11	4.22	4.18
June	N/A	3.99	4.31	3.83	3.98	4.10	4.05
July	N/A	3.66	3.86	3.62	3.67	3.81	3.75
August	N/A	3.46	3.60	3.43	3.41	3.54	3.48
September	N/A	3.63	3.71	3.61	3.52	3.85	3.68
October	N/A	3.58	3.64	3.67	3.52	3.91	3.74
November	N/A	3.66	3.64	3.62	3.49	3.86	3.65
December	N/A	3.99	3.97	4.23	3.83	4.57	4.21
2013 Total	**3.58**	**3.71**	**3.80**	**3.72**	**3.67**	**3.91**	**3.80**

e Estimated r Revised p Preliminary

See footnote in Appendix B.

Table 19A

LOUISIANA NATURAL GAS WELLHEAD PRICES (MMBTU)

(Dollars/MMBTU)

DATE	GOM Federal OCS[12]	DNR State Royalty	HENRY HUB Settled NYMEX	HENRY HUB Cash Spot	SPOT MARKET[5] Low	SPOT MARKET[5] High	SPOT MARKET[5] Average
1993	2.10	2.05	N/A	N/A	2.00	2.12	2.06
1994	2.02	1.91	1.89	N/A	1.79	1.88	1.84
1995	1.55	1.75	1.63	1.69	1.56	1.61	1.59
1996	2.28	2.67	2.59	2.76	2.37	2.58	2.50
1997	2.53	2.52	2.59	2.53	2.44	2.57	2.50
1998	2.27	2.13	2.10	2.08	2.00	2.10	2.05
1999	2.10	2.33	2.27	2.27	2.17	2.27	2.22
2000	3.45	4.00	3.88	4.23	3.77	3.88	3.83
2001	3.89	4.28	4.27	3.95	4.11	4.30	4.21
2002	2.87	3.16	3.26	3.35	3.16	3.30	3.24
2003	4.92	5.52	5.40	5.49	5.11	5.69	5.44
2004	5.81	6.04	6.15	5.90	5.75	5.95	5.85
2005	6.58 r	8.65	8.62	8.83	8.50	8.90	8.70
2006	7.92 r	7.10	7.25	6.73	6.64	6.96	6.81
2007	6.60 r	7.08	6.86	6.98	6.80	7.01	6.89
2008	8.69 r	9.25	9.03	8.88	8.77	8.99	8.86
2009	4.84 r	3.89	3.99	3.80	3.82	4.00	3.92
2010	3.94 r	4.33	4.39	4.22	4.30	4.44	4.37
2011	4.31 r	4.06	4.04	3.85	3.88	4.01	3.96
January	N/A	2.89	3.08	2.58	2.69	2.80	2.74
February	N/A	2.63 r	2.68	2.40	2.50	2.59	2.55
March	N/A	2.31 r	2.45	2.08	2.14	2.26	2.20
April	N/A	2.06 r	2.19	1.88	1.89	1.99	1.96
May	N/A	2.30	2.04	2.34	2.23	2.35	2.30
June	N/A	2.39	2.43	2.37	2.27	2.38	2.34
July	N/A	2.82 r	2.77	2.84	2.77	2.88	2.84
August	N/A	2.88 r	3.01	2.73	2.79	2.90	2.85
September	N/A	2.68 r	2.63	2.74	2.63	2.76	2.70
October	N/A	3.16 r	3.02	3.19	3.09	3.22	3.16
November	N/A	3.35 r	3.47	3.40	3.39	3.51	3.46
December	N/A	3.37 r	3.70	3.21	3.32	3.45	3.39
2012 Total	**2.95 r**	**2.74 r**	**2.79**	**2.65**	**2.64**	**2.76**	**2.71**
January	N/A	3.13	3.35	3.20	3.24	3.37	3.32
February	N/A	3.21	3.23	3.20	3.17	3.27	3.24
March	N/A	3.57	3.43	3.66	3.56	3.67	3.64
April	N/A	3.99	3.98	4.01	4.01	4.12	4.08
May	N/A	3.97	4.15	3.88	3.95	4.05	4.02
June	N/A	3.84	4.15	3.68	3.82	3.94	3.89
July	N/A	3.52	3.71	3.48	3.53	3.66	3.61
August	N/A	3.32	3.46	3.30	3.28	3.41	3.35
September	N/A	3.49	3.57	3.47	3.38	3.70	3.54
October	N/A	3.44	3.50	3.53	3.38	3.76	3.60
November	N/A	3.52	3.50	3.48	3.36	3.71	3.51
December	N/A	3.84	3.82	4.07	3.68	4.39	4.05
2013 Total	**3.44**	**3.57**	**3.65**	**3.58**	**3.53**	**3.75**	**3.65**

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See footnote in Appendix B.

Table 20

LOUISIANA AVERAGE NATURAL GAS PRICES
DELIVERED TO CONSUMER [3] (MCF)
(Dollars/Thousand Cubic Feet)

DATE	CITY GATES	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	UTILITY
1993	2.72	6.09	5.33	2.30	2.49
1994	2.54	6.24	5.42	2.17	2.17
1995	2.21	6.01	5.15	1.82	1.88
1996	3.13	6.76	6.09	2.84	2.94
1997	3.04	7.16	6.22	2.87	2.79
1998	2.33	6.68	5.64	2.31	2.37
1999	2.70	6.83	5.73	2.54	2.59
2000	4.61	8.34	7.41	4.03	4.55
2001	5.55	10.47	8.58	5.04	4.30
2002	4.07	8.06	6.74	3.69	3.63
2003	5.78	10.29	8.81	5.53	5.94
2004	6.56	11.20	9.56	6.58	6.50
2005	8.56	13.26	11.41	9.11	9.14
2006	7.67	14.66	11.84	7.42	7.66
2007	7.22	14.20	11.83	7.08	7.53
2008	9.58	15.49	13.52	9.32	10.01
2009	5.96	13.15	10.46	4.31	4.35
2010	5.35	13.65	9.82	4.64	4.82
2011	5.76	13.34	9.41	4.27	4.37 r
January	4.60	10.24 r	9.95 r	3.15	3.17
February	4.12 r	10.91 r	9.23 r	2.82 r	N/A
March	3.38	11.63 r	9.19 r	2.48	2.53
April	2.69	12.30 r	7.72 r	2.24 r	2.25
May	2.51	12.24 r	7.03 r	2.41 r	N/A
June	2.30	13.48 r	7.61 r	2.61 r	2.63
July	3.14	14.12 r	7.79 r	3.02 r	3.12
August	3.44	14.92 r	7.82 r	3.11	3.15 r
September	3.03	13.86 r	7.64 r	2.92 r	2.99
October	3.62	13.51 r	7.88 r	3.35 r	3.51
November	3.98 r	10.84 r	8.36 r	3.68 r	3.80 r
December	4.09 r	10.06 r	8.80 r	3.79 r	3.86 r
2012 Total	**3.41 r**	**12.34 r**	**8.25 r**	**2.97 r**	**3.09 r**
January	3.71	8.84	8.37	3.58	3.62
February	3.77	9.48	8.43	3.46	3.58
March	4.11	9.02	8.12	3.80	3.95
April	4.60	10.63	8.80	4.29	4.36
May	4.62	12.41	9.12	4.35	N/A
June	4.42	14.57	9.21	4.30	N/A
July	4.00	15.35	8.51	3.89	N/A
August	3.78	15.60	8.48	3.67	N/A
September	3.96	15.20	8.42	3.80	N/A
October	3.91	14.93	8.40	3.79	3.84
November	N/A	N/A	N/A	N/A	N/A
December	N/A	N/A	N/A	N/A	N/A
2013 Total	**4.09**	**12.60**	**8.59**	**3.89**	**3.87**

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See footnote in Appendix B.

Table 20A

LOUISIANA AVERAGE NATURAL GAS PRICES
DELIVERED TO CONSUMER [3] (MMBTU)
(Dollars/MMBTU)

DATE	CITY GATES	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	UTILITY
1993	2.62	5.86	5.13	2.21	2.39
1994	2.44	6.00	5.21	2.09	2.09
1995	2.13	5.78	4.95	1.75	1.81
1996	3.01	6.50	5.86	2.73	2.83
1997	2.92	6.88	5.98	2.76	2.68
1998	2.24	6.42	5.42	2.22	2.28
1999	2.60	6.57	5.51	2.44	2.49
2000	4.43	8.02	7.13	3.88	4.38
2001	5.34	10.07	8.25	4.85	4.13
2002	3.91	7.75	6.48	3.55	3.49
2003	5.56	9.89	8.47	5.32	5.71
2004	6.31	10.77	9.19	6.33	6.25
2005	8.23	12.75	10.97	8.76	8.79
2006	7.38	14.10	11.38	7.13	7.37
2007	6.94	13.65	11.38	6.81	7.24
2008	9.21	14.89	13.00	8.96	9.63
2009	5.73	12.64	10.06	4.14	4.18
2010	5.14	13.13	9.44	4.46	4.63
2011	5.54	12.83	9.05	4.11	4.28 r
January	4.42	9.85 r	9.57 r	3.03	3.05
February	3.96 r	10.49 r	8.88 r	2.71 r	w
March	3.25	11.18 r	8.84 r	2.38	2.43
April	2.59	11.83 r	7.42 r	2.15 r	2.16
May	2.41	11.77 r	6.76 r	2.32 r	w
June	2.21	12.96 r	7.32 r	2.51 r	2.53
July	3.02	13.58 r	7.49 r	2.90 r	3.00
August	3.31	14.35 r	7.52 r	2.99	3.03 r
September	2.91	13.33 r	7.35 r	2.81 r	2.88
October	3.48	12.99 r	7.58 r	3.22 r	3.38
November	3.83 r	10.42 r	8.04 r	3.54 r	3.65 r
December	3.93 r	9.67 r	8.46 r	3.64 r	3.71 r
2012 Total	**3.28 r**	**11.87 r**	**7.93 r**	**2.85 r**	**2.98 r**
January	3.57	8.50	8.05	3.44	3.48
February	3.63	9.12	8.11	3.33	3.44
March	3.95	8.67	7.81	3.65	3.80
April	4.42	10.22	8.46	4.13	4.19
May	4.44	11.93	8.77	4.18	N/A
June	4.25	14.01	8.86	4.13	N/A
July	3.85	14.76	8.18	3.74	N/A
August	3.63	15.00	8.15	3.53	N/A
September	3.81	14.62	8.10	3.65	N/A
October	3.76	14.36	8.08	3.64	3.69
November	N/A	N/A	N/A	N/A	N/A
December	N/A	N/A	N/A	N/A	N/A
2013 Total	**3.28**	**10.10**	**6.88**	**3.12**	**2.66**

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See footnote in Appendix B.

Table 21

UNITED STATES AVERAGE NATURAL GAS PRICES (MCF)

(Dollars/Thousand Cubic Feet)

DATE	WELLHEAD[3]	SPOT MARKET[5]	FOREIGN IMPORTS[3]	CITY GATES[3]	DELIVERED TO RESIDENTIAL[3]
1993	2.04	2.10	2.03	3.21	6.67
1994	1.85	1.84	1.87	3.07	6.89
1995	1.55	1.56	1.49	2.78	6.58
1996	2.17	2.39	1.96	3.27	6.97
1997	2.32	2.54	2.15	3.66	6.94
1998	1.96	2.11	1.97	3.07	7.45
1999	2.19	2.28	2.23	3.10	7.34
2000	3.68	3.94	3.88	4.62	8.51
2001	4.00	4.34	4.36	5.24	9.91
2002	2.95	3.26	3.14	4.10	8.60
2003	4.88	5.48	5.18	5.84	10.62
2004	5.45 r	5.94	5.78	6.61	11.64
2005	7.32 r	8.67	8.09	8.72	13.72
2006	6.40 r	6.81	6.87	8.28	14.16
2007	6.38 r	6.89	6.87	8.02	14.19
2008	8.07 r	8.80	8.77	9.59	15.45
2009	3.66 r	4.00	4.14	6.14	12.91
2010	4.48 r	4.58	4.46	6.07	12.91
2011	3.95 r	4.26	4.22	5.73	12.57
January	2.89	3.14	3.27	4.85	9.67 r
February	2.46	2.79	2.86	4.73	9.52 r
March	2.25	2.37	2.36	4.84	10.45 r
April	1.89	2.11	2.04	4.19	11.01 r
May	1.94	2.41	2.29	4.30	12.66 r
June	2.54	2.49	2.35	4.63	14.25 r
July	2.59	3.00	2.78	4.88	15.20 r
August	2.86	3.00	2.83	5.13	15.89 r
September	2.71	2.86	2.67	4.76	14.81 r
October	3.03	3.37	3.16	4.65	11.78 r
November	3.35 r	3.77	4.03 r	4.79 r	10.06 r
December	3.35 r	3.81	3.93 r	4.79 r	9.75 r
2012 Total	**2.66 r**	**2.93**	**2.88 r**	**4.71 r**	**12.09 r**
January	N/A	4.01	4.14	4.52	9.17
February	N/A	4.07	3.99	4.56	9.24
March	N/A	3.99	3.84	4.75	9.34
April	N/A	4.30	3.98	5.16	10.44
May	N/A	4.19	3.95	5.54	12.61
June	N/A	4.07	3.90	5.74	14.97
July	N/A	3.81	3.41	5.53	16.30
August	N/A	3.47	3.17	5.23	16.44
September	N/A	3.68	3.48	5.20	15.69
October	N/A	3.73	3.44	4.88	12.48
November	N/A	3.77	N/A	N/A	N/A
December	N/A	4.69	N/A	N/A	N/A
2013 Total	**N/A**	**3.98**	**3.73**	**5.11**	**12.67**

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See footnote in Appendix B.

Table 21A

UNITED STATES AVERAGE NATURAL GAS PRICES (MMBTU)

(Dollars/MMBTU)

DATE	WELLHEAD[3]	SPOT MARKET[5]	FOREIGN IMPORTS[3]	CITY GATES[3]	DELIVERED TO RESIDENTIAL[3]
1993	1.97	2.02	1.95	3.09	6.42
1994	1.78	1.77	1.80	2.95	6.63
1995	1.49	1.50	1.43	2.67	6.33
1996	2.08	2.30	1.88	3.14	6.70
1997	2.23	2.44	2.07	3.52	6.67
1998	1.88	2.03	1.89	2.95	7.16
1999	2.11	2.19	2.15	2.98	7.06
2000	3.54	3.79	3.73	4.44	8.19
2001	3.85	4.17	4.19	5.04	9.53
2002	2.84	3.14	3.02	3.94	8.27
2003	4.69	5.27	4.98	5.62	10.21
2004	5.24 r	5.71	5.56	6.35	11.19
2005	7.04 r	8.34	7.77	8.38	13.19
2006	6.15 r	6.55	6.60	7.96	13.62
2007	6.13 r	6.63	6.61	7.72	13.64
2008	7.76 r	8.46	8.44	9.22	14.85
2009	3.52 r	3.85	3.98	5.91	12.41
2010	4.31 r	4.40	4.29	5.84	12.41
2011	3.80	4.09	4.06	5.51	12.09
January	2.78	3.02	3.14	4.66	9.30 r
February	2.37	2.69	2.75	4.55	9.15 r
March	2.16	2.28	2.27	4.65	10.05 r
April	1.82	2.02	1.96	4.03	10.59 r
May	1.87	2.32	2.20 r	4.13	12.17 r
June	2.44	2.40	2.26	4.45	13.70 r
July	2.49	2.89	2.67 r	4.69	14.62 r
August	2.75	2.89	2.72	4.93	15.28 r
September	2.61	2.75	2.57 r	4.58	14.24 r
October	2.91	3.24	3.04	4.47	11.33 r
November	3.22 r	3.62	3.88 r	4.61 r	9.67 r
December	3.22 r	3.66	3.78 r	4.61 r	9.38 r
2012 Total	**2.55 r**	**2.81**	**2.77 r**	**4.53 r**	**11.62 r**
January	N/A	3.86	3.98	4.35	8.82
February	N/A	3.91	3.84	4.38	8.88
March	N/A	3.83	3.69	4.57	8.98
April	N/A	4.14	3.83	4.96	10.04
May	N/A	4.03	3.80	5.33	12.13
June	N/A	3.92	3.75	5.52	14.39
July	N/A	3.66	3.28	5.32	15.67
August	N/A	3.34	3.05	5.03	15.81
September	N/A	3.54	3.35	5.00	15.09
October	N/A	3.59	3.31	4.69	12.00
November	N/A	3.62	N/A	N/A	N/A
December	N/A	4.51	N/A	N/A	N/A
2013 Total	**N/A**	**3.83**	**3.59**	**4.91**	**12.18**

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See footnote in Appendix B.

Table 22

LOUISIANA STATE OIL AND GAS DRILLING PERMITS ISSUED BY TYPE

Excluding OCS

DATE	DEVELOPMENTAL	+	WILDCATS	=	TOTAL	=	OFFSHORE	+	ONSHORE
1992	1,044		92		1,136		59		1,077
1993	1,040		109		1,149		76		1,073
1994	1,015		98		1,113		74		1,039
1995	979		86		1,065		68		997
1996	1,248		133		1,381		121		1,260
1997	1,424		138		1,562		85		1,477
1998	1,171		115		1,286		96		1,190
1999	908		109		1,017		79		938
2000	1,363		90		1,453		151		1,302
2001	1,277		88		1,365		96		1,269
2002	902		123		1,025		90		935
2003	1,152		112		1,264		83		1,181
2004	1,535		98		1,633		57		1,576
2005	1,882		114		1,996		74		1,922
2006	2,040		97		2,137		61		2,076
2007	2,082		68		2,150		34		2,116
2008	2,296		78		2,374		40		2,334
2009	1,335		30		1,365		12		1,353
2010	1,914		42		1,956		32		1,924
2011	1,638		38		1,676		36		1,640
January	133		1		134		1		133
February	122		1		123		4		119
March	141		0		141		6		135
April	146		1		147		2		145
May	147		5		152		3		149
June	146		4		150		1		149
July	125		4		129		2		127
August	112		7		119		3		116
September	128		2		130		2		128
October	136		7		143		3		140
November	103		4		107		0		107
December	104		2		106		1		105
2012 Total	**1,543**		**38**		**1,581**		**28**		**1,553**
January	79		0		79		3		76
February	117		4		121		5		116
March	157		1		158		5		153
April	173		1		174		4		170
May	123		4		127		1		126
June	114		6		120		6		114
July	148		5		153		4		149
August	155		2		157		1		156
September	141		1		142		2		140
October	108		5		113		2		111
November	131		0		131		1		130
December	103		0		103		3		100
2013 Total	**1,549**		**29**		**1,578**		**37**		**1,541**

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Figure 11

LOUISIANA STATE DRILLING PERMITS ISSUED
Federal OCS Excluded

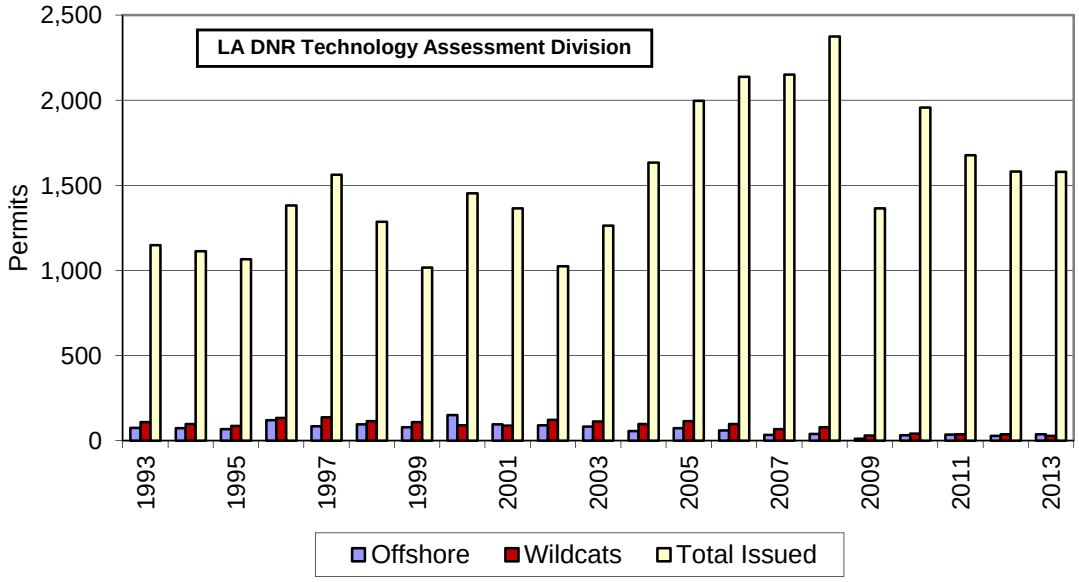

Figure 12

LOUISIANA AVERAGE ACTIVE RIGS

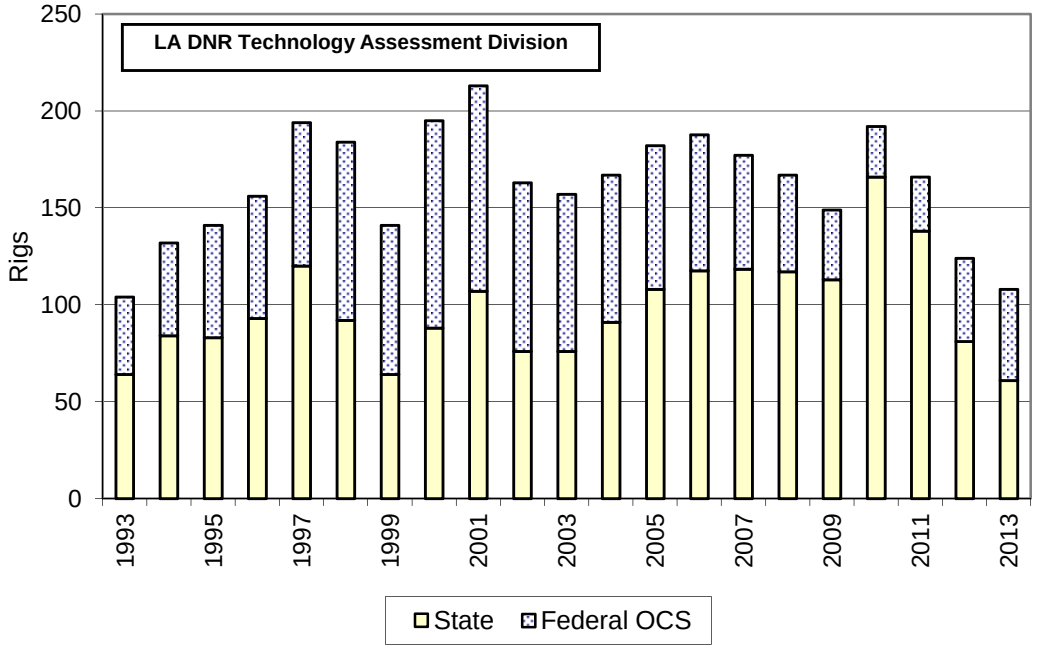

Table 23

LOUISIANA AVERAGE RIGS RUNNING

DATE	State North[4]	State South Inland Water[4]	State South Inland Land[4]	State Offshore	Total State	Federal Offshore	Total Offshore[4] (State+OCS)	LA[4] TOTAL
1992	9	13	27	16	66	23	39	88
1993	11	12	22	19	64	40	59	104
1994	14	16	25	29	84	48	78	132
1995	16	15	28	23	82	58	81	141
1996	19	19	31	25	93	63	88	156
1997	21	23	48	28	120	74	102	194
1998	19	21	38	14	93	92	106	184
1999	16	16	21	12	65	76	88	141
2000	24	16	37	10	86	108	118	195
2001	30	20	44	10	104	108	119	213
2002	23	16	32	5	76	87	92	163
2003	29	14	29	4	76	81	85	157
2004	39	18	30	3	91	76	79	167
2005	48	23	32	4	108	74	79	182
2006	57	19	38	3	118	70	73	188
2007	58	24	34	2	118	59	61	177
2008	68	20	26	3	117	50	53	167
2009	89	8	15	1	113	36	38	150
2010	134	13	16	2	166	26	28	192
2011	97	17	22	2	138	28	29	165
January	65	15	29	1	110	37	38	147
February	59	14	28	1	102	35	36	137
March	51	19	27	2	99	37	39	136
April	42	21	27	1	90	40	40	130
May	38	20	27	0	85	43	43	128
June	31	19	29	1	80	45	46	125
July	24	18	28	1	71	47	48	118
August	27	19	28	1	74	46	47	121
September	25	19	23	0	67	49	49	115
October	25	16	23	0	63	43	43	107
November	24	18	24	0	66	48	48	114
December	22	20	20	1	63	46	47	109
2012 Total	**36**	**18**	**26**	**1**	**81**	**43**	**44**	**124**
January	21	18	18	3	60	46	49	106
February	23	17	17	2	59	50	52	109
March	25	20	14	2	61	46	47	107
April	23	24	16	2	64	43	45	108
May	22	23	18	1	64	43	44	107
June	24	21	17	1	62	44	45	106
July	24	19	13	1	57	46	47	103
August	26	22	13	2	63	47	49	110
September	25	20	15	3	62	49	52	111
October	24	18	17	3	61	47	50	108
November	24	18	16	1	59	50	51	109
December	25	20	12	0	56	54	54	111
2013 Total	**24**	**20**	**15**	**2**	**61**	**47**	**49**	**108**

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Table 24

LOUISIANA STATE PRODUCING CRUDE OIL WELLS

Excluding OCS

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1968	13,856	11,698	4,767	30,321
1969	13,670	11,131	4,954	29,756
1970	13,166	10,363	1,179	24,707
1971	12,889	9,626	1,107	23,623
1972	12,475	8,912	1,048	22,436
1973	11,698	8,249	1,025	20,972
1974	11,984	8,262	985	21,230
1975	12,259	8,094	936	21,288
1976	12,393	7,730	1,073	21,196
1977	12,915	7,444	1,067	21,425
1978	13,019	7,219	1,086	21,324
1979	12,961	6,859	1,078	20,898
1980	13,981	6,832	1,073	21,885
1981	15,084	6,777	1,105	22,966
1982	15,540	6,608	1,112	23,259
1983	16,299	6,374	1,037	23,710
1984	17,544	6,300	1,038	24,882
1985	18,794	6,223	1,014	26,031
1986	19,346	6,061	1,001	26,408
1987	18,630	5,768	945	25,343
1988	17,953	5,698	964	24,615
1989	16,849	5,474	927	23,250
1990	17,369	5,215	906	23,490
1991	17,731	5,143	868	23,742
1992	17,449	5,155	842	23,446
1993	16,810	5,015	814	22,640
1994	15,904	4,682	805	21,392
1995	15,260	4,451	769	20,479
1996	15,148	4,295	719	20,163
1997	14,573	4,165	619	20,358
1998	13,975	3,962	546	18,484
1999	13,747	3,971	546	18,264
2000	16,795	3,914	408	21,117
2001	16,494	4,257	393	21,144
2002	16,531	4,071	423	21,026
2003	16,516	3,583	467	20,566
2004	16,148	3,485	462	20,095
2005	17,153	3,648	317	21,117
2006	17,072	3,615	241	20,928
2007	16,994	3,711	262	20,966
2008	N/A	N/A	N/A	21,146
2009	N/A	N/A	N/A	20,852
2010	N/A	N/A	N/A	19,367
2011	14,333	4,045	411	18,789
2012	14,217	4,275	436	18,928
2013	16,691	3,646	240	20,577

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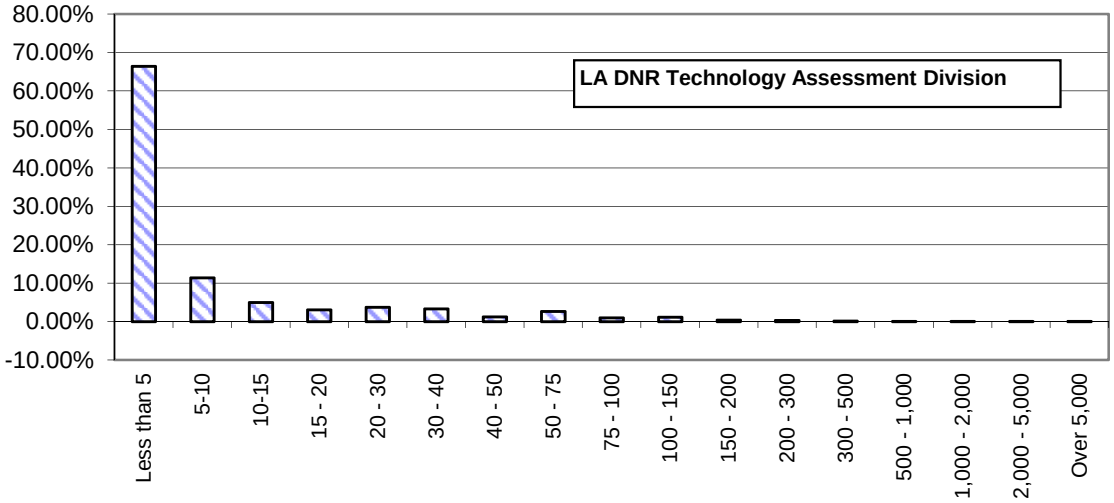
Figure 13

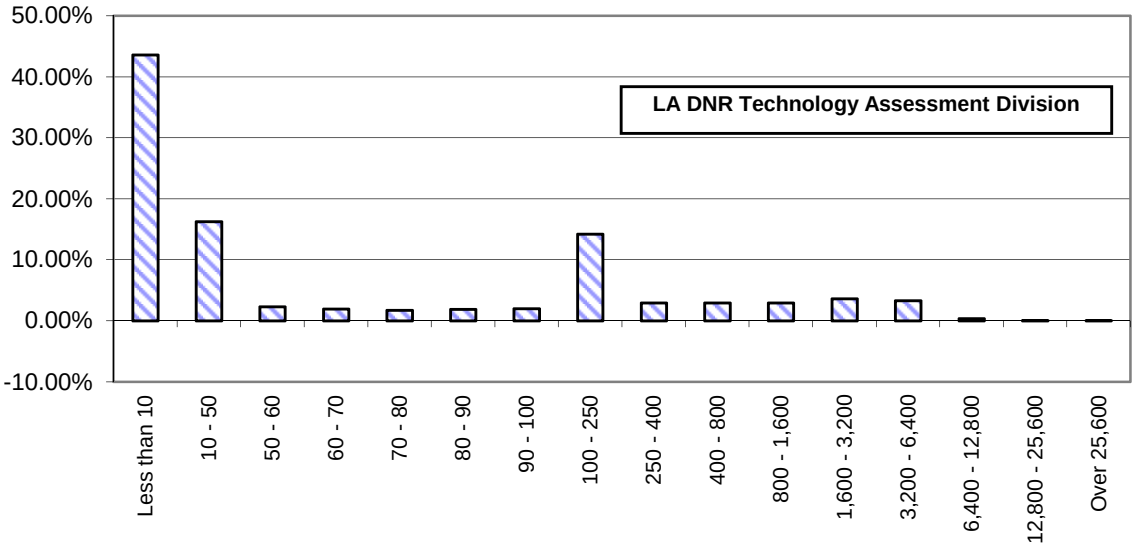
2012 Percentage of Louisiana Oil Wells by Production Rates



Barrels per Day

Figure 14

2012 Percentage of Louisiana Gas Wells by Production Rates



MCF per day

Table 25

LOUISIANA STATE PRODUCING NATURAL GAS WELLS

Excluding OCS

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1968	4,563	3,582	1,048	9,194
1969	4,558	3,451	1,297	9,306
1970	4,511	3,438	311	8,260
1971	4,449	3,389	327	8,164
1972	4,664	3,397	316	8,378
1973	4,927	3,449	332	8,707
1974	5,159	3,458	313	8,929
1975	5,373	3,331	308	9,012
1976	5,851	3,289	362	9,502
1977	6,343	3,331	449	10,123
1978	6,915	3,253	472	10,640
1979	7,372	3,214	514	11,100
1980	8,360	3,277	551	12,188
1981	9,479	3,226	557	13,262
1982	10,154	3,136	564	13,855
1983	10,502	3,065	549	14,115
1984	10,812	2,955	532	14,299
1985	11,026	2,887	511	14,424
1986	11,049	2,730	436	14,216
1987	10,726	2,635	413	13,774
1988	10,813	2,539	445	13,796
1989	10,861	2,474	501	13,836
1990	10,802	2,407	512	13,721
1991	10,702	2,261	496	13,459
1992	10,498	2,149	496	13,143
1993	10,506	2,192	490	13,189
1994	10,596	2,260	473	13,329
1995	10,452	2,200	335	12,987
1996	10,376	2,148	274	12,799
1997	10,446	2,149	296	12,891
1998	10,579	1,995	259	12,833
1999	10,581	2,010	262	12,853
2000	13,704	3,194	333	17,231
2001	13,054	3,369	311	16,734
2002	13,438	3,309	344	17,092
2003	13,607	2,952	384	16,944
2004	13,924	3,005	398	17,327
2005	13,996	2,977	258	17,231
2006	14,478	3,066	204	17,748
2007	14,707	3,211	227	18,145
2008	N/A	N/A	N/A	18,984
2009	N/A	N/A	N/A	19,009
2010	N/A	N/A	N/A	19,384
2011	18,542	1,851	159	20,552
2012	19,125	1,734	144	21,003
2013	18,184	1,295	104	19,583

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Table 26

LOUISIANA STATE WELL COMPLETION BY TYPE AND BY REGION

Excluding OCS

	YEAR	OFFSHORE	SOUTH	NORTH	TOTAL
	1999	4	35	60	99
	2000	10	51	77	138
	2001	11	92	97	200
C	2002	5	91	89	185
R O	2003	1	106	53	160
U I	2004	2	106	69	177
D L	2005	1	86	113	200
E	2006	4	137	164	305
	2007	3	125	149	277
	2008	5	101	228	334
	2009	1	63	90	154
	2010	9 r	114 r	167 r	290 r
	2011	4 r	122 r	144 r	270 r
	2012	3 r	258 r	422 r	683 r
	2013	3	123	267	393
	1999	17	169	287	473
	2000	21	166	359	546
	2001	20	279	426	725
N	2002	15	215	249	479
A	2003	15	194	383	592
T G	2004	7	186	649	842
U A	2005	9	197	769	975
R S	2006	6	190	826	1,022
A	2007	5	104	923	1,032
L	2008	9	97	984	1,090
	2009	3	39	707	749
	2010	9 r	73 r	958 r	1,040 r
	2011	4 r	37 r	198 r	239 r
	2012	1 r	54 r	203 r	258 r
	2013	2	28	55	85
	1999	8	80	135	223
	2000	9	98	154	261
	2001	10	184	205	399
	2002	4	122	147	273
D H	2003	6	166	134	306
R O	2004	10	144	105	259
Y L	2005	12	166	142	320
E	2006	5	197	165	367
	2007	3	164	116	283
	2008	4	94	121	219
	2009	1	63	75	139
	2010	2 r	61 r	76 r	139 r
	2011	0 r	36 r	52 r	88 r
	2012	1 r	57 r	92 r	150 r
	2013	0	33	71	104

Table 27

LOUISIANA STATE MINERAL BONUS, RENTAL AND ROYALTY OVERRIDE REVENUES, Excluding OCS

(Million Dollars)

DATE	BONUSES	OVERRIDE ROYALTY	RENTALS	TOTAL
1992	4.26	0.32	6.97	11.55
1993	13.29	0.20	4.20	17.68
1994	15.31	0.19	6.15	21.65
1995	31.96	0.69	9.47	42.12
1996	39.63	-0.27	18.40	57.76
1997	38.27	0.84	25.00	64.11
1998	42.27	0.69	25.86	68.82
1999	14.17	0.45	20.27	34.89
2000	21.12	1.13	14.16	36.41
2001	29.70	1.89	13.75	45.34
2002	24.74	2.29	14.26	41.28
2003	19.54	3.36	12.93	35.83
2004	29.79	5.05	9.47	44.31
2005	35.78	2.03	13.75	51.56
2006	33.49	2.05	21.64	57.18
2007	45.91	3.35	22.59	71.85
2008	171.28	5.89	23.09	200.26
2009	17.70	4.26	25.13	47.09
2010	32.01	4.60	19.35	55.96
2011	19.48	8.42	16.36	44.27
January	2.17	0.42	1.17	3.77
February	1.99	1.13	0.05	3.18
March	0.87	0.88	0.26	2.00
April	0.55	0.97	1.20	2.72
May	2.52	0.58	0.57	3.67
June	0.83	1.20	0.72	2.75
July	0.33	0.72	0.64	1.69
August	4.49	0.78	1.56	6.82
September	-0.14	0.82	0.41	1.09
October	0.34	0.76	0.64	1.74
November	1.57	0.79	0.87	3.23
December	1.96	0.76	3.63	6.34
2012 Total	**17.48**	**9.80**	**11.72**	**39.00**
January	1.19	0.49	1.83	3.51
February	2.38	0.79	0.36	3.54
March	0.28	1.18	0.38	1.84
April	1.89	1.30	1.26	4.45
May	0.33	1.42	1.03	2.78
June	2.56	1.00	0.36	3.93
July	0.15	0.78	1.40	2.33
August	0.58	0.85	0.16	1.59
September	2.70	1.04	0.06	3.80
October	4.02	0.95	0.53	5.50
November	2.08	0.65	2.80	5.53
December	0.75	0.86	0.95	2.56
2013 Total	**18.92**	**11.31**	**11.14**	**41.38**

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Table 28

LOUISIANA STATE MINERAL ROYALTY REVENUE

Excluding OCS
(Million Dollars)

DATE	OIL	GAS	PLANT LIQUIDS	OTHER	TOTAL
1992	113.29	97.07	4.69	0.00	215.04
1993	99.20	125.01	4.53	0.00	228.74
1994	85.72	102.95	4.05	0.00	192.72
1995	95.82	146.60	4.60	0.00	247.02
1996	123.51	211.31	6.72	0.00	341.54
1997	112.76	154.62	5.93	0.00	273.31
1998	68.85	121.17	2.58	0.00	192.60
1999	91.52	115.10	2.05	0.00	208.66
2000	145.80	212.71	3.46	0.00	361.97
2001	122.16	252.68	6.33	0.00	381.17
2002	100.10	165.24	8.03	0.00	273.37
2003	127.61	288.91	9.31	0.00	425.83
2004	143.84	274.64	14.82	0.00	433.30
2005	149.97	279.03	10.51	0.00	439.50
2006	201.71	287.24	14.23	0.00	503.19
2007	288.57	305.62	18.98	0.00	613.18
2008	372.30	419.94	32.16	0.00	824.41
2009	210.54	153.86	14.91	0.00	379.31
2010	271.16	162.69	22.53	0.00	456.38
2011	379.12	171.59	32.48	0.00	583.19
January	33.97 r	10.32 r	2.50 r	0.00	46.79 r
February	30.04 r	8.81 r	2.15 r	0.00	41.00 r
March	36.26 r	8.22 r	2.28 r	0.00	46.76 r
April	35.91 r	7.19 r	2.34 r	0.00	45.44 r
May	34.15 r	8.05 r	1.98 r	0.00	44.19 r
June	27.52 r	8.41 r	1.73 r	0.00	37.66 r
July	30.60 r	10.55 r	1.70 r	0.00	42.85 r
August	27.48 r	9.25 r	1.73 r	0.00	38.46 r
September	24.67 r	9.26 r	1.62 r	0.00	35.54 r
October	31.93 r	12.12 r	1.93 r	0.00	45.98 r
November	31.15 r	13.50 r	2.28 r	0.00	46.94 r
December	33.39 r	13.98 r	2.52 r	0.00	49.89 r
2012 Total	**377.07 r**	**119.68 r**	**24.74 r**	**0.00**	**521.49 r**
January	34.43	12.70	2.33	0.00	49.46
February	30.58	11.19	2.29	0.00	44.06
March	33.77	13.91	2.13	0.00	49.81
April	31.83	14.05	2.16	0.00	48.04
May	32.32	16.08	2.36	0.00	50.76
June	30.60	13.96	2.04	0.00	46.60
July	33.79	13.00	2.13	0.00	48.93
August	34.73	12.07	2.23	0.00	49.03
September	32.53	12.90	2.48	0.00	47.91
October	27.53 p	12.66 p	2.28 p	0.00	42.47 p
November	31.60 p	13.00 p	2.33 p	0.00	46.93 p
December	30.56 p	13.96 p	2.36 p	0.00	46.88 p
2013 Total	**384.28 p**	**159.47 p**	**27.12 p**	**0.00**	**570.87 p**

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Table 29

LOUISIANA STATE MINERAL SEVERANCE TAX REVENUE[8]

Excluding OCS
(Million Dollars)

DATE	OIL	GAS	OTHER MINERALS	SEVERANCE TOTAL
1992	326.07	126.24	1.63	453.94
1993	283.68	107.32	1.76	392.76
1994	229.40	114.58	2.02	346.00
1995	233.37	114.58	1.85	349.80
1996	270.36	98.60	1.88	370.84
1997	257.13	118.27	1.85	377.25
1998	148.96	120.98	1.40	271.34
1999	171.29	102.48	1.82	275.60
2000	337.51	104.33	1.50	443.34
2001	281.95	165.77	1.65	449.38
2002	235.84	173.51	1.33	410.67
2003	316.70	152.13	1.70	470.53
2004	359.77	216.73	1.73	578.23
2005	439.00	243.62	1.61	681.50
2006	506.31	331.40	1.69	839.41
2007	529.75	354.11	1.67	885.52
2008	842.94	293.66	1.65	1,138.25
2009	377.51	292.18	1.63	671.32
2010	516.90	224.18	1.58	742.67
2011	677.56	97.61	1.34	776.51
January	69.87	13.87	0.11	83.85
February	48.76	16.77	0.12	65.64
March	66.24	8.91	0.11	75.25
April	55.88	6.55	0.11	62.53
May	76.08	14.92	0.12	91.12
June	70.12	16.05	0.09	86.26
July	65.96	15.11	0.15	81.23
August	48.36	11.32	0.08	59.76
September	60.75	9.45	0.10	70.31
October	54.26	12.35	0.18	66.79
November	54.37	2.93	0.08	57.37
December	66.13	7.00	0.06	73.20
2012 Total	**736.78**	**135.23**	**1.31**	**873.32**
January	61.51	-0.89	0.17	60.78
February	64.98	-6.51	0.09	58.57
March	68.14	7.63	0.09	75.86
April	58.09	10.10	0.12	68.31
May	65.92	11.82	0.10	77.84
June	63.22	12.37	0.15	75.74
July	63.44	13.79	0.11	77.33
August	62.53	11.70	0.13	74.35
September	66.86	8.43	0.11	75.40
October	65.51	10.25	0.15	75.91
November	63.20	9.78	0.10	73.07
December	58.36	10.98	0.06	69.41
2013 Total	**761.75**	**99.45**	**1.38**	**862.58**

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Table 30

STATE REVENUE FROM LOUISIANA'S OUTER CONTINENTAL SHELF[13]

(Dollars)

YEAR	RENTALS	BONUSES	ROYALTIES	OTHERS REVENUE	GOMESA	TOTAL
1986	610,567	1,912,734	66,176,203	0		68,699,504
1987	148,578	3,150,519	11,043,115	574,520,000		588,862,212
1988	153,561	5,528,006	8,708,079	2,520,000		16,909,646
1989	175,817	2,890,298	7,163,105	2,520,000		12,749,220
1990	430,198	5,570,375	6,239,368	2,520,000		14,759,941
1991	303,824	2,220,094	8,461,261	2,520,000		13,505,179
1992	258,787	1,189,989	6,405,279	5,880,000		13,734,055
1993	235,250	965,504	7,373,550	5,880,000		14,454,304
1994	1,016,932	1,913,682	11,780,932	5,880,000		20,591,546
1995	255,213	890,002	8,012,718	5,880,000		15,037,933
1996	292,445	4,666,400	12,283,395	5,880,000		23,122,240
1997	686,051	5,689,689	11,855,454	8,400,000		26,631,194
1998	412,229	1,744,928	9,621,860	8,400,000		20,179,017
1999	357,379	241,659	6,284,879	8,400,000		15,283,917
2000	321,695	1,268,244	12,690,937	15,254,978		22,680,876
2001	303,675	2,148,111	30,454,058	7,735,941		40,641,785
2002	94,841	0	11,768,383	28,363		11,891,587
2003	284,563	2,842,662	26,447,045	21,775		29,596,045
2004	490,745	7,620,500	30,145,237	6,613		38,256,482
2005	374,717	2,521,931	27,995,948	7,849		30,900,445
2006	494,362	5,947,411	24,325,787	1,304,257		32,071,817
2007	196,129	-2,695,489	25,498,932	89,134		23,088,706
2008	412,813	6,196,386	36,547,175	2,607,022		45,763,396
2009	339,802	463,332	21,433,896	80,201	6,347,321	28,664,552
2010	355,697	2,892,749	19,321,141	35,844	699,757	23,305,188
2011	268,106	0	20,325,825	93,441	222,725	20,910,097
2012	N/A	N/A	N/A	N/A	80,770	19,845,947
2013	N/A	N/A	N/A	N/A	75,621	24,533,076

See footnotes on Appendix B: "OCSLA" & "GOMESA"

Table 31

LOUISIANA STATE TOTAL MINERAL REVENUE

(Dollars)

YEAR	FEDERAL OCS	FEDERAL ONSHORE	STATE BOUNDARIES	TOTAL
1984	0	905,000	1,329,965,030	1,330,870,030
1985	0	795,000	1,164,969,360	1,165,764,360
1986	68,699,504	555,000	832,406,385	901,660,889
1987	588,862,212	517,000	746,675,897	1,336,055,109
1988	16,909,646	545,000	660,959,699	678,414,345
1989	12,749,220	452,000	678,301,987	691,503,207
1990	14,759,941	542,000	779,963,703	795,265,644
1991	13,505,179	328,000	751,117,246	764,950,425
1992	13,734,055	376,000	680,527,788	694,637,843
1993	14,454,304	782,000	639,182,812	654,412,032
1994	20,591,546	532,000	560,371,998	581,495,544
1995	15,037,933	728,000	638,942,698	654,708,631
1996	23,122,240	943,209	770,137,601	794,203,050
1997	26,631,194	817,329	714,672,685	742,121,208
1998	20,179,017	996,000	532,755,940	553,930,957
1999	15,283,917	1,276,465	519,144,200	535,704,582
2000	22,680,876	1,024,730	839,883,694	863,589,300
2001	40,641,785	1,481,176	875,887,102	918,010,063
2002	11,891,587	730,156	725,323,377	737,945,120
2003	29,596,045	1,182,451	932,191,569	962,970,065
2004	38,256,482	1,364,965	1,055,838,962	1,095,460,408
2005	30,900,445	1,569,882	1,166,491,860	1,198,962,188
2006	32,071,817	1,170,670	1,395,971,977	1,429,214,465
2007	23,088,706	940,888	1,545,321,941	1,569,351,535
2008	45,763,396	3,703,240	2,162,918,035	2,212,384,671
2009	28,664,552	914,421	1,097,717,147	1,127,296,119
2010	23,305,188	3,123,211	1,253,724,962	1,280,153,361
2011	20,910,097	17,982,455	1,403,961,976	1,442,854,528
2012	19,845,947	6,914,439	1,433,806,818 r	1,460,567,204 r
2013	24,533,076	2,607,490	1,474,816,771	1,501,957,338

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Federal OCS: See footnotes on Appendix B "OCSLA" & "GOMESA"

Federal Onshore: Revenue distributed to the state under section 35 of the Mineral Leasing Act (MLA). MLA provides to the state 50% of mineral revenue from federal lands located within the state boundaries. Revenues came from royalties, rents and bonuses. It is fiscal year data. Oil and gas produced on federal onshore pay severance tax to the state by the producer on the non-royalty share of the production, and the royalty share of the production is exempted.

State Boundaries: Revenue from mineral production such as bonuses, override royalties, rents, royalties and severance taxes within state boundaries.

Table 32

REVENUE TO FEDERAL GOVERNMENT COLLECTED FROM OIL AND GAS LEASES IN THE LOUISIANA OUTER CONTINENTAL SHELF [12]

(Area beyond the state's 3-mile offshore boundary)
(Dollars)

YEAR	BONUS PAYMENTS	RENTAL PAYMENTS	OTHER REVENUES	PRODUCTION ROYALTIES	TOTAL[a] COLLECTION
1978	1,015,873,944	8,616,027	1,502,963	1,086,517,424	2,112,510,358
1979	2,521,190,635	7,328,999	1,105,865	1,344,995,442	3,874,620,941
1980	2,676,927,673	7,361,904	1,277,987	1,866,737,837	4,552,305,401
1981	3,308,009,881	8,205,515	1,211,959	2,825,271,285	6,142,698,640
1982	1,110,172,751	7,288,316	1,349,850	3,166,294,042	4,285,104,959
1983	3,796,644,766	13,620,158	2,540,294	2,764,348,600	6,577,153,818
1984	1,154,495,009	16,323,567	2,010,462	3,195,995,282	4,368,824,320
1985	830,710,260	33,756,447	2,139,530	2,940,519,737	3,807,125,974
1986	113,731,609	34,110,029	3,199,547	2,006,205,199	2,157,246,384
1987	247,344,486	52,115,828	19,239,027	1,803,208,740	2,121,908,081
1988	388,730,457	35,752,757	8,727,373	1,571,981,500	2,005,192,087
1989	386,710,637	48,498,402	26,261,190	1,618,163,065	2,079,633,294
1990	421,375,632	55,568,777	16,028,740	2,068,487,831	2,561,460,980
1991	276,234,849	59,126,732	15,444,167	1,857,392,914	2,208,198,662
1992	53,716,797	49,087,621	33,533,897	1,848,599,157	1,984,937,472
1993	61,454,861	29,268,366	119,445,091	2,009,644,653	2,219,812,971
1994	256,271,643	30,003,884	141,190,812	1,888,953,102	2,316,419,441
1995	296,254,733	62,526,069	19,803,444	1,764,875,791	2,143,460,037
1996	24,330,068	53,231,380	40,394,227	2,549,759,516	3,154,940,691
1997	1,169,790	55,761,920	65,651,370	2,857,126,443	3,789,383,151
1998	9,207,972	51,518,286	-14,452,431	2,267,502,514	2,313,776,341
1999	1,169,790	40,463,226	49,219,184	2,228,250,265	2,319,102,465
2000	83,630,219	32,710,256	167,647,231	3,045,847,943	3,329,835,649
2001	160,037,859	30,078,009	177,773,259	5,126,344,201	5,494,233,328
			GULF OF MEXICO TOTAL		
2001	632,482,979	188,455,045	3,126,962	6,674,371,634	7,498,436,619
2002	138,423,162	153,303,576	3,252,702	3,841,164,517	4,136,143,958
2003	1,147,014,322	245,963,859	4,983,819	4,535,938,009	5,933,900,009
2004	523,416,154	214,303,045	2,570,343	4,607,776,092	5,348,065,634
2005	518,426,651	221,784,370	1,897,501	5,313,350,455	6,055,458,976
2006	865,262,735	224,006,816	2,839,550	6,514,658,836	7,606,767,938
2007	373,930,998	200,993,255	3,166,689	6,441,214,179	7,019,305,120
2008	6,818,747,137	231,026,391	3,105,849	7,850,622,155	14,903,501,532
2009	1,181,075,491	226,229,847	3,013,594	4,161,415,445	5,571,734,377
2010	979,569,294	236,631,251	-3,531,170	3,743,286,144	4,955,955,519
2011	36,751,111	219,119,868	2,153,134	5,960,501,525	6,218,525,638
2012	663,714,729	217,669,757	31,841,893	5,626,212,490	6,539,438,869
2013	2,675,653,773	244,699,154	34,646,396	5,778,759,396	8,733,758,719

[a] Total collection, including state 8G shares.
See footnote in Appendix B.
e Estimated r Revised p Preliminary

Table 33

LOUISIANA ESTIMATED CRUDE OIL PROVED RESERVES [9]
EXCLUDING LEASE CONDENSATE
As of December 31st of Each Year
(Million Barrels)

YEAR	North	South Onshore	South Offshore	Federal OCS	Total Louisiana	TOTAL US
1991	127	408	144	1,775	2,454	24,682
1992	125	417	126	1,643	2,311	23,745
1993	108	382	149	1,880	2,519	22,957
1994	108	391	150	1,922	2,571	22,457
1995	108	387	142	2,269	2,906	22,351
1996	128	382	148	2,357	3,015	22,017
1997	136	427	151	2,587	3,301	22,546
1998	101	357	97	2,483	3,038	21,034
1999	108	384	108	2,442	3,042	21,765
2000	97	310	122	2,751	3,280	22,045
2001	87	341	136	3,877	4,441	22,446
2002	75	335	91	4,088	4,589	22,677
2003	66	314	72	4,251	4,703	21,891
2004	58	304	65	3,919	4,346	21,371
2005	68	299	65	3,852	4,284	21,757
2006	68	312	48	3,500	3,928	20,972
2007	76	326	56	3,320	3,778	21,317
2008	60	277	51	3,388	3,776	19,121
2009	55	269	46	3,570	3,940	20,682
2010	104	274	46	3,914	4,338	23,267
2011	103	264	50	4,438	4,855	26,544

See footnotes on Appendix B

Figure 15

UNITED STATES
CRUDE OIL
RESERVES
December 31, 2011
Excluding Lease Condensate
(Million Barrels)

STATE	VOLUME
Texas	7,202
Alaska	3,816
California	3,655
Louisiana	4,855
N. Dakota	2,649
Other	4,367
TOTAL	**26,544**

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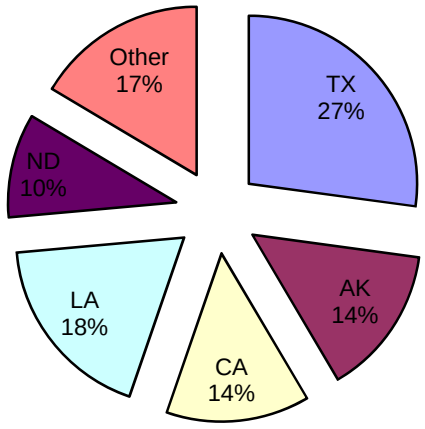


Table 34

LOUISIANA ESTIMATED LEASE CONDENSATE PROVED RESERVES[9]

As of December 31st of Each Year
(Million Barrels)

YEAR	North	South Onshore	South Offshore	Federal OCS	Total Louisiana	TOTAL US
1991	21	175	9	253	458	1,244
1992	19	151	8	226	404	1,226
1993	19	133	9	235	396	1,192
1994	21	123	9	233	386	1,147
1995	24	136	11	305	476	1,197
1996	24	127	11	422	584	1,307
1997	30	134	12	433	609	1,341
1998	23	138	16	435	612	1,336
1999	25	134	15	435	609	1,295
2000	22	130	17	437	606	1,333
2001	27	141	19	325	512	1,398
2002	19	107	11	300	437	1,346
2003	19	82	11	251	363	1,215
2004	21	66	9	205	301	1,221
2005	23	72	9	228	332	1,218
2006	29	65	10	185	289	1,339
2007	31	69	11	180	291	1,415
2008	27	64	8	151	250	1,433
2009	26	74	10	134	244	1,633
2010	27	68 r	11	129	235 r	1,914
2011	33	64	11	129	237	2,406

See footnotes on Appendix B

Figure 16

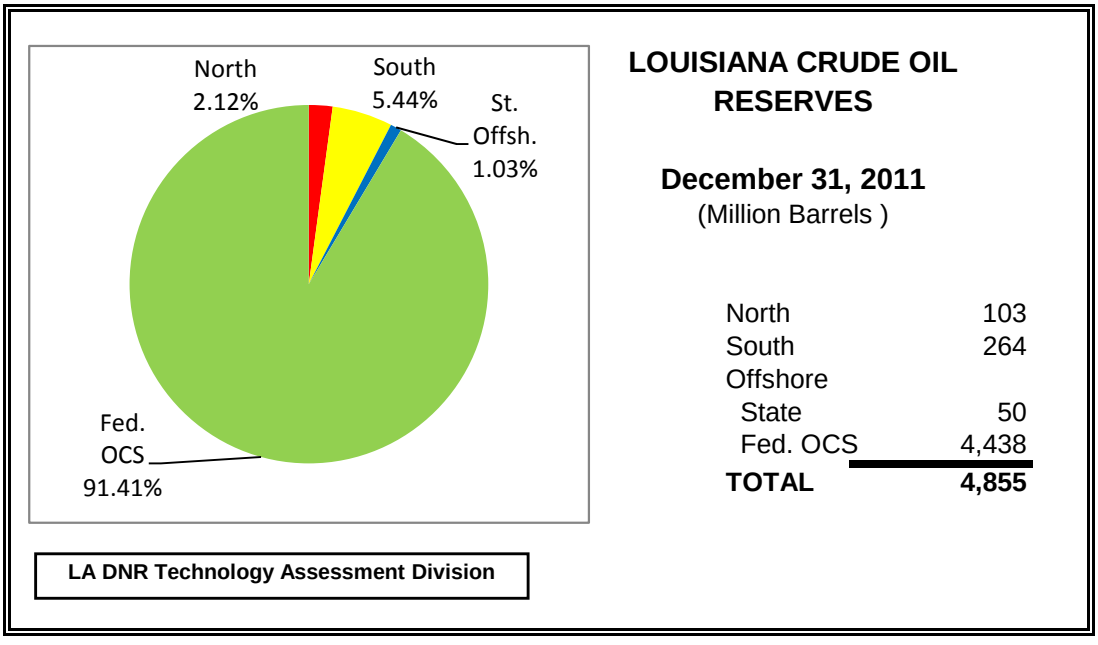


Table 35

LOUISIANA ESTIMATED DRY NATURAL GAS PROVED RESERVES[9]

As of December 31st of Each Year

(Billion Cubic Feet, at 14.73 psia and 60 degrees Fahrenheit)

YEAR	North	South Onshore	South Offshore	Federal OCS	Total Louisiana	TOTAL US
1991	2,384	7,504	1,024	21,611 c	32,523 c	167,062
1992	2,311	6,693	776	19,653 c	29,433 c	165,015
1993	2,325	5,932	917	19,383 c	28,557 c	162,415
1994	2,537	6,251	960	20,835 c	30,583 c	163,837
1995	2,788	5,648	838	21,392 c	30,666 c	165,146
1996	3,105	5,704	734	21,856 c	31,399 c	166,474
1997	3,093	5,855	725	21,934 c	31,607 c	167,223
1998	2,898	5,698	551	20,774 c	29,921 c	164,041
1999	3,079	5,535	628	19,598 c	28,840 c	167,406
2000	3,298	5,245	696	19,788 c	29,027 c	177,427
2001	3,881	5,185	745	19,721 c	29,532 c	183,460
2002	4,245	4,224	491	18,500 c	27,460 c	186,946
2003	5,074	3,746	506	16,728 c	26,054 c	189,044
2004	5,770	3,436	382	14,685 c	24,273 c	192,513
2005	6,695	3,334	418	13,665 c	24,112 c	204,385
2006	6,715	3,335	424	11,824 c	22,298 c	211,085
2007	6,344	3,323	378	11,090 c	21,135 c	237,726
2008	7,876	2,799	898	10,450 c	22,023 c	244,656
2009	17,146	2,844	701	9,362 c	30,053 c	272,509
2010	26,030	2,876	371	8,896 c	38,173 c	304,625
2011	27,337	2,519	502	8,156 c	38,514 c	334,067

[C] Includes Federal Offshore Alabama

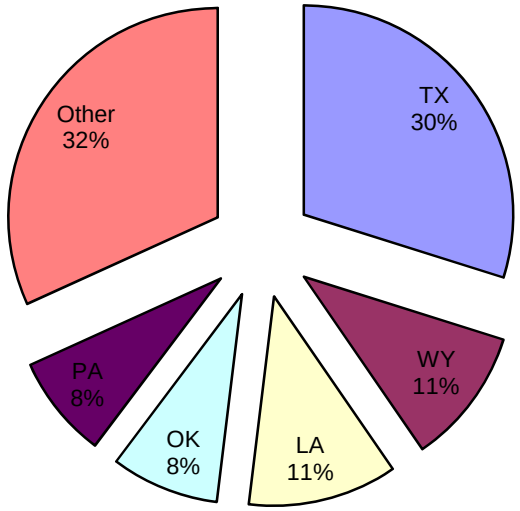
Figure 17

UNITED STATES NATURAL GAS RESERVES

December 31, 2011

(Billion Cubic Feet)

STATE	VOLUME
Texas	99,719
Wyoming	35,290
Louisiana	38,514
Oklahoma	27,830
Pennsylvania	26,529
Other	106,185
TOTAL	**334,067**



LA DNR Technology Assessment Division

Table 36

LOUISIANA ESTIMATED NATURAL GAS LIQUIDS PROVED RESERVES [9] EXCLUDING LEASE CONDENSATE

As of December 31st of Each Year
(Million Barrels)

YEAR	North	South Onshore	South Offshore	Federal OCS	Total Louisiana	TOTAL US
1991	38	242	41	292	613	4,978
1992	41	229	47	246	563	4,999
1993	38	201	21	255	515	4,838
1994	48	214	19	267	548	4,876
1995	55	359	16	191	621	5,005
1996	61	284	36	199	580	5,209
1997	50	199	12	352	613	5,291
1998	34	187	13	341	575	4,852
1999	36	230	19	398	681	5,316
2000	39	207	21	315	582	7,012
2001	35	128	41	273	477	6,595
2002	30	119	37	346	532	6,648
2003	48	100	35	235	418	6,244
2004	53	87	27	410	577	6,707
2005	61	96	32	375	563	6,947
2006	60	94	22	390	484	7,133
2007	69	99	24	348	540	7,728
2008	68	78	55	313	514	7,842
2009	98	90	43	301	532	8,557
2010	79	113	24	340	556	9,809
2011	54	94	44	354	546	10,825

See footnotes on Appendix B

Figure 18

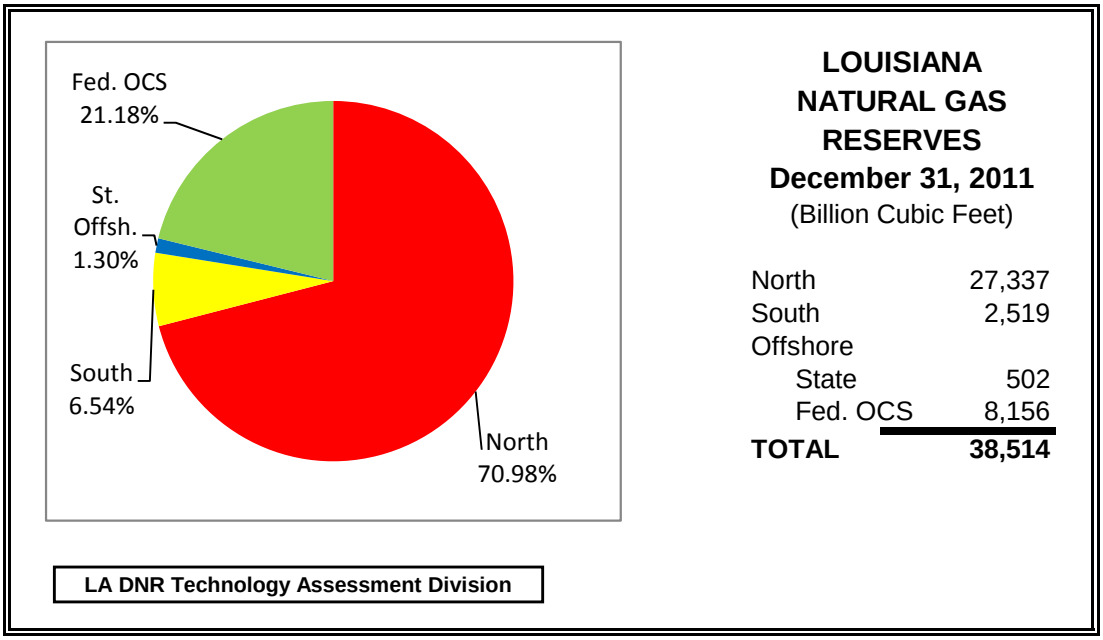


Table 37

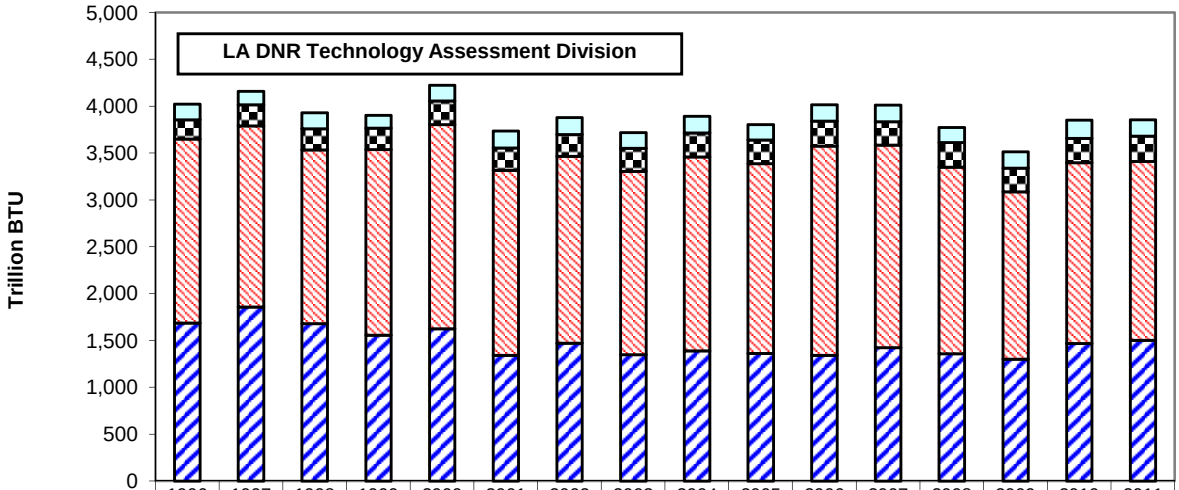
LOUISIANA NONAGRICULTURAL EMPLOYMENT[1]

DATE	OIL & GAS PRODUCTION	CHEMICAL INDUSTRY	PETROLEUM MANUFACTURING	ALL PIPELINE*	TOTAL EMPLOYMENT
1991	54,412	29,412	12,268	1,073	1,566,779
1992	45,869	30,349	12,543	1,095	1,583,423
1993	44,422	30,419	12,728	1,078	1,613,577
1994	44,885	30,014	13,037	1,014	1,671,087
1995	44,279	30,168	11,603	932	1,721,651
1996	46,885	30,096	11,262	789	1,757,619
1997	51,559	29,935	11,038	792	1,797,225
1998	54,875	30,196	10,984	702	1,837,505
1999	44,645	28,898	11,046	693	1,846,026
2000	45,714	28,335	10,345	724	1,872,494
2001	47,009	27,337	10,643	2,417	1,868,902
2002	43,839	25,694	10,566	2,306	1,848,656
2003	42,339	24,558	10,395	2,334	1,851,570
2004	40,249	23,516	9,958	2,122	1,866,870
2005	41,179	23,269	10,240	2,179	1,843,237
2006	44,394	22,188	10,310	2,347	1,810,667
2007	46,764	22,612	10,764	2,454	1,869,965
2008	50,541	22,788	11,287	2,553	1,889,576
2009	46,956	22,478	11,363	2,456	1,849,395
2010	47,916	22,533	11,423	2,667	1,833,888
January	47,659	22,819	11,267	2,820	1,820,110
February	48,193	22,821	11,266	2,782	1,831,623
March	48,348	22,870	11,250	2,764	1,841,298
April	48,974	22,819	11,279	2,705	1,852,046
May	48,834	22,859	11,239	2,769	1,855,817
June	49,100	22,938	11,189	2,721	1,844,780
July	49,678	23,540	11,081	2,705	1,825,423
August	49,963	23,596	11,073	2,769	1,835,029
September	50,137	23,648	11,027	2,721	1,852,320
October	50,031	23,327	11,007	2,861	1,862,818
November	49,951	23,319	11,116	2,863	1,869,097
December	50,005	23,465	11,162	2,857	1,870,771
2011 Average	**49,239**	**23,168**	**11,163**	**2,778**	**1,846,761**
January	52,355	22,940	11,111	2,909	1,838,591
February	53,112	22,953	11,154	2,908	1,851,018
March	52,804	22,900	11,165	2,909	1,862,599
April	51,871	22,912	11,193	2,914	1,878,015
May	52,321	22,942	11,152	2,920	1,886,088
June	52,165	23,158	11,245	2,908	1,877,109
July	49,901	23,154	11,329	2,874	1,841,163
August	50,202	23,174	11,387	2,847	1,854,854
September	49,640	23,045	11,376	2,839	1,864,619
October	49,225	22,923	11,327	2,770	1,881,120
November	49,183	23,030	11,400	2,772	1,892,618
December	48,772	23,213	11,473	2,779	1,892,006
2012 Average	**50,963**	**23,029**	**11,276**	**2,862**	**1,868,317**

* Natural Gas Pipeline employment is included in 2001 forward but excluded in prior years.
See footnote in Appendix B.

Figure 19

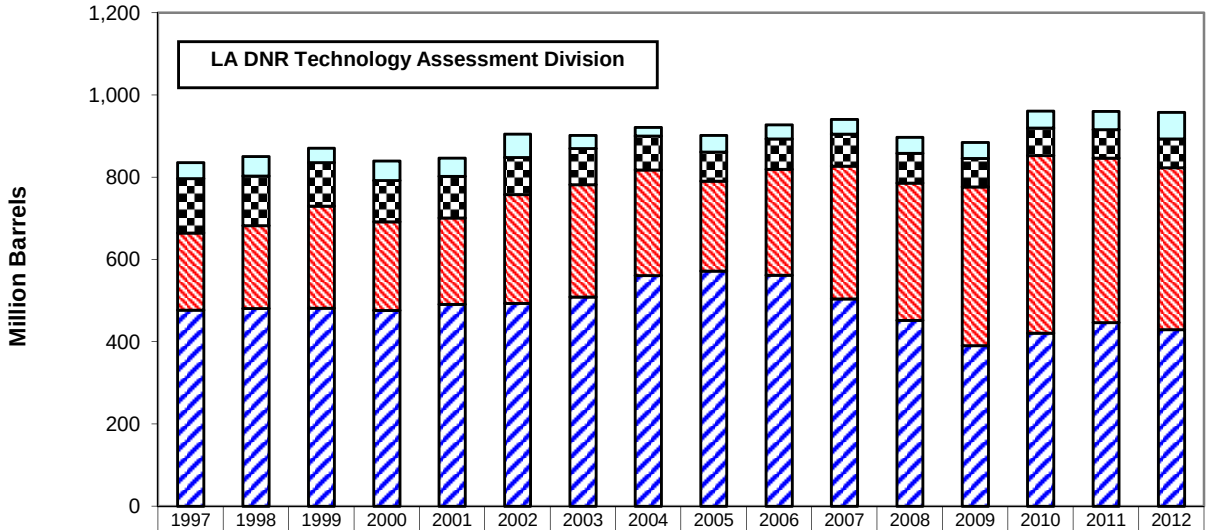
LOUISIANA ENERGY CONSUMPTION BY SOURCE



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Nuclear	166	142	172	137	165	181	181	168	178	164	175	179	161	176	195	174
Coal	205	226	225	228	253	240	232	248	257	254	265	250	263	253	260	270
Petroleum	1,963	1,935	1,856	1,981	2,179	1,975	1,996	1,955	2,070	2,023	2,235	2,162	1,991	1,783	1,929	1,908
Natural Gas	1,688	1,857	1,679	1,558	1,626	1,342	1,471	1,349	1,390	1,363	1,342	1,424	1,360	1,303	1,468	1,503
Total	3,856	4,018	3,760	3,767	4,059	3,557	3,699	3,552	3,716	3,640	3,843	3,835	3,613	3,339	3,657	3,681

Figure 20

LOUISIANA REFINERY CRUDE OIL INPUT BY SOURCE



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Other States	40	47	35	47	45	57	32	20	40	34	36	39	39	41	44	65
Louisiana	132	121	106	100	101	90	88	82	71	74	78	72	69	67	69	70
Federal OCS	187	201	249	216	210	265	273	257	219	257	323	334	386	432	400	394
Foreign	477	481	481	476	491	493	509	561	572	562	504	452	391	421	447	429
Total	836	850	871	839	847	905	902	921	902	928	941	896	885	967	960	958

Table 38

LOUISIANA ENERGY CONSUMPTION ESTIMATES BY SOURCE[11]

Year	Total Energy (TBTU)	Total Natural Gas (BCF)	Total Petroleum (MBBLS)	Total Coal (MST)	Total Nuclear (Million KWH)	Hydroelectric Power (Million KWH)
1971	2,865	1,884	180,931	0	0	0
1972	3,042	1,940	205,568	0	0	0
1973	3,270	2,010	231,763	0	0	0
1974	3,333	2,008	242,545	0	0	0
1975	3,066	1,789	230,872	0	0	0
1976	3,506	2,044	260,930	0	0	0
1977	3,888	2,191	299,549	79	0	0
1978	4,037	2,249	312,231	172	0	0
1979	3,936	1,978	351,467	118	0	0
1980	3,730	1,794	345,640	111	0	0
1981	3,723	1,782	351,404	1,363	0	0
1982	3,384	1,556	329,383	3,724	0	0
1983	3,151	1,413	307,978	6,154	0	0
1984	3,248	1,594	283,675	6,855	0	0
1985	3,036	1,386	280,304	9,217	2,457	0
1986	3,198	1,439	292,730	10,459	10,637	0
1987	3,240	1,501	286,809	10,391	12,324	0
1988	3,311	1,446	300,896	12,848	13,785	0
1989	3,408	1,556	297,765	12,471	12,391	0
1990	3,480	1,588	304,516	12,547	14,197	656
1991	3,463	1,525	312,517	12,965	13,956	656
1992	3,584	1,551	329,450	13,674	10,356	656
1993	3,627	1,579	334,556	13,676	14,398	1,232
1994	3,753	1,586	358,274	14,100	12,779	972
1995	3,781	1,679	350,162	13,357	15,686	952
1996	3,856	1,616	374,722	12,534	15,765	964
1997	4,018	1,661	361,782	13,874	13,511	1,036
1998	3,760	1,569	348,208	13,891	16,428	1,063
1999	3,767	1,495	381,195	13,953	13,112	802
2000	4,059	1,537	428,363	15,737	15,796	532
2001	3,557	1,307	377,607	14,934	17,336	732
2002	3,699	1,426	383,119	14,676	17,305	891
2003	3,552	1,308	362,328	15,592	16,126	892
2004	3,716	1,346	384,677	16,059	17,080	1,099
2005	3,640	1,310	373,980	15,856	15,676	811
2006	3,843	1,293	413,583	16,410	16,735	713
2007	3,835	1,377	399,732	15,524	17,078	827
2008	3,613	1,314	369,658	16,409	15,371	1,064
2009	3,339	1,266	336,444	15,736	16,782	1,236
2010	3,657	1,434	361,683	16,240	18,639	1,109
2011	4,055	1,475	359,100	16,800	16,600	1,000

e Estimated r Revised p Preliminary

TBTU = Trillion BTU BCF = Billion Cubic Feet KWH = Kilowatt-hours

MBBLS = Thousand Barrels MST = Thousand Short Tons

See footnote in Appendix B.

Table 39

LOUISIANA REFINERY'S CRUDE OIL STATISTICS

DATE	AVERAGE STOCK ON HAND (Barrels)	DAILY AVERAGE RUNS TO STILL (Barrels)	LICENSED REFINERIES
1993	14,521,046	2,159,422	20
1994	15,126,534	2,150,403	19
1995	14,325,305	2,109,245	19
1996	14,462,108	2,252,573	19
1997	14,275,221	2,257,275	19
1998	14,965,117	2,312,239	19
1999	15,467,674	2,414,781	17
2000	14,818,774	2,334,842	16
2001	15,425,670	2,480,357	17
2002	16,335,210	2,470,556	18
2003	15,246,004	2,469,756	17
2004	15,938,390	2,543,087	18
2005	16,217,856	2,458,189	18
2006	16,741,544	2,528,319	17
2007	16,108,022	2,687,658	17
2008	16,248,826	2,440,984	18
2009	13,019,604	2,412,848	19
2010	14,183,752	2,632,282	19
2011	13,473,779	2,743,681	19
January	13,893,982	2,460,873	18
February	12,946,176	2,603,478	18
March	13,867,040	2,479,709	18
April	13,703,695	2,656,078	18
May	12,984,455	2,904,454	18
June	14,462,080	2,926,800	18
July	13,839,012	2,963,408	18
August	13,272,747	2,736,355	18
September	13,693,927	2,562,676 r	18
October	13,624,156 r	2,860,303 r	18
November	13,148,514 r	2,979,307 r	18 r
December	13,720,237 r	2,916,631 r	18 r
2012 Total	**13,596,335 r**	**2,754,173 r**	**18 r**
January	14,364,769	2,706,359	18
February	14,439,472	2,601,033	18
March	14,692,762	2,840,433	18
April	16,234,046	2,807,230	18
May	15,168,569	2,808,455	18
June	14,133,242	2,802,042	18
July	15,408,690	2,834,578	18
August	15,281,737	2,852,228	18
September	14,885,331	2,711,994	18
October	13,761,902	2,128,261	18
November	14,642,990 p	2,564,161 p	18 p
December	14,430,074 p	2,468,139 p	18 p
2013 Total	**14,786,965 p**	**2,677,076 p**	**18 p**

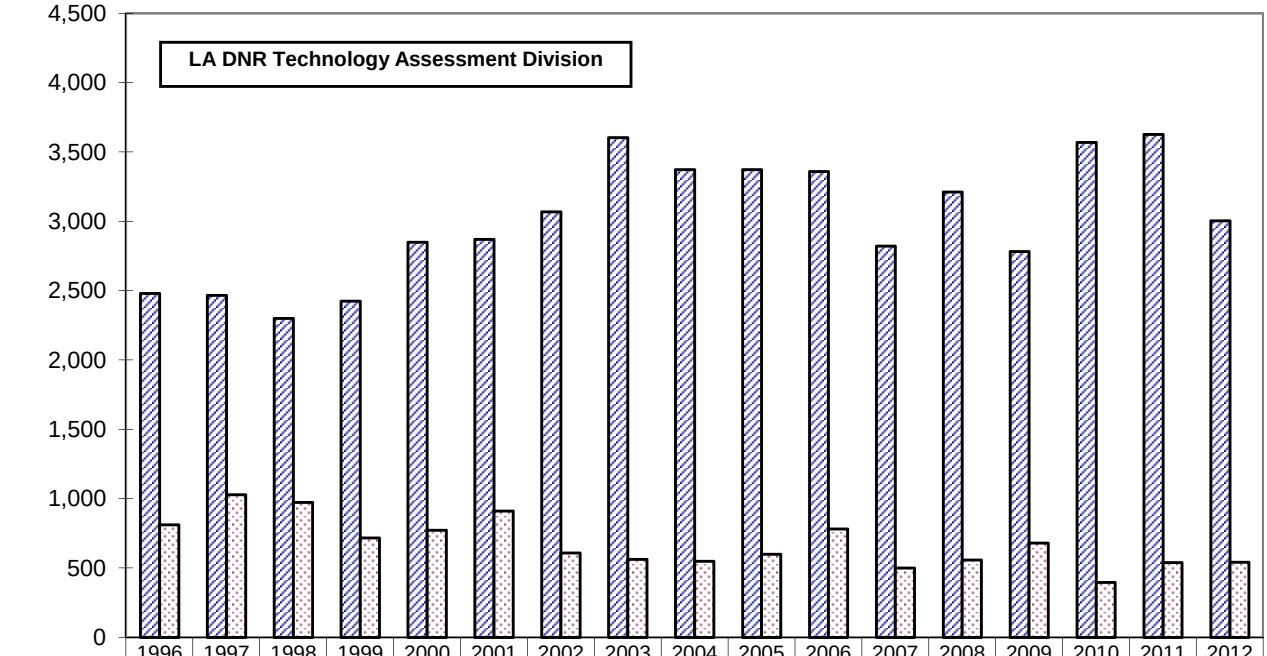
e Estimated r Revised p Preliminary

Exxon-Mobil Refinery - Baton Rouge

Figure 21

LOUISIANA LIGNITE PRODUCTION BY MINE SOURCE

(Thousand Tons Shipped)



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Dolet Hills	2,480	2,466	2,301	2,426	2,850	2,872	3,069	3,604	3,373	3,374	3,361	2,823	3,213	2,783	3,571	3,627	3,005
Oxbow	812	1,029	974	717	773	912	609	564	548	599	783	500	559	681	397	541	541
Total	3,292	3,495	3,275	3,143	3,622	3,784	3,678	4,168	3,921	3,973	4,144	3,323	3,772	3,464	3,993	4,168	3,622

Table 40

LOUISIANA ELECTRIC UTILITIES NET ELECTRICITY GENERATION[14] BY FUEL TYPE

(Million KWH)

YEAR	COAL	LIGNITE	OIL	GAS	NUCLEAR	TOTAL
1973	0	0	14,353	36,351	0	40,704
1974	0	0	5,034	34,472	0	39,506
1975	0	0	3,257	35,967	0	39,224
1976	0	0	7,773	37,343	0	45,116
1977	0	0	13,255	35,196	0	48,451
1978	0	0	14,568	36,935	0	51,503
1979	0	0	8,259	38,396	0	46,655
1980	0	0	4,787	40,952	0	45,739
1981	1,529	0	2,634	39,947	0	44,110
1982	4,998	0	940	35,594	0	41,532
1983	8,377	0	356	28,311	0	37,044
1984	9,830	0	140	29,360	0	39,330
1985	13,968	0	100	27,736	2,457	44,261
1986	12,642	2,884	419	26,202	10,637	52,784
1987	12,176	2,926	60	23,823	12,324	51,309
1988	14,372	4,059	272	24,286	13,785	56,774
1989	14,227	3,854	298	21,900	12,391	52,670
1990	13,890	3,910	130	26,041	14,197	58,168
1991	14,786	4,126	45	24,245	13,956	57,158
1992	15,613	4,183	483	24,554	10,356	55,188
1993	15,794	3,572	1,838	23,751	14,398	59,353
1994	15,761	4,364	680	26,586	12,779	60,170
1995	14,632	4,321	49	30,867	15,686	65,555
1996	14,630	4,002	273	23,972	15,765	58,643
1997	16,453	4,499	646	26,010	13,511	61,120
1998	16,131	4,631	600	28,318	16,428	66,107
1999	16,386	4,780	397	30,162	13,112	64,837
2000	14,484 *	N/A	625	26,696	15,796	57,601
2001	10,917 *	N/A	1,722	20,402	17,336	50,378
2002	12,259 *	N/A	68	25,086	17,305	54,922 *
2003	11,020 *	N/A	1,008	15,094	16,126	43,485 *
2004	11,324 *	N/A	3,694	15,139	17,080	47,604 *
2005	11,416 *	N/A	3,378	13,688	15,676	44,158 *
2006	11,545 *	N/A	1,757	10,854	16,735	40,891 *
2007	10,736 *	N/A	1,977	13,872	17,078	43,523 *
2008	11,213 *	N/A	1,901	14,680	15,371	43,164 *
2009	11,025 *	N/A	1,460	14,325	16,782	43,592 *
2010	11,226 *	N/A	2,891	18,924	18,639	51,681 *
2011	11,860 *	N/A	4,378	22,071	16,615	54,924 *
2012	11,163 *	N/A	2,701	22,525	15,659	52,098 *

* Cajun Electric Power Cooperative's purchase by Louisiana Generating LLC changed their classification from electric utility to independent power producer.

e Estimated r Revised

See footnotes on Appendix B

APPENDICES

The Sol of New Orleans II
The University of New Orleans's solar powered car

Appendix A

Abbreviations

BCF	Billion Cubic Feet
BTU	British Thermal Unit
DNR	Louisiana Department of Natural Resources
DOE	United States Department of Energy
DOI	United States Department of the Interior
EIA	Energy Information Administration, DOE
FOB	Free on Board
GOM	Gulf of Mexico
KWH	Kilowatt-hours
MBBLS	Thousand Barrels
MCF	Thousand Cubic Feet
MMS	Minerals Management Service, DOI
MST	Thousand Short Tons
NGC	Natural Gas Clearinghouse
OCS	Outer Continental Shelf
OPEC	Organization of Petroleum Exporting Countries
RAC	Refinery Acquisition Costs
SLS	South Louisiana Sweet Crude Oil
SPR	Strategic Petroleum Reserve
TBTU	Trillion BTU
TCF	Trillion Cubic Feet

State Abbreviations Used in the Louisiana Energy Facts Annual

AL	Alabama	MS	Mississippi
AK	Alaska	MT	Montana
AR	Arkansas	ND	North Dakota
CA	California	NM	New Mexico
CO	Colorado	OK	Oklahoma
IL	Illinois	PA	Pennsylvania
KS	Kansas	TX	Texas
LA	Louisiana	UT	Utah
MI	Michigan	WY	Wyoming

Appendix B

Data Sources*

1. EMPLOYMENT AND TOTAL WAGES PAID BY EMPLOYERS SUBJECT TO LOUISIANA EMPLOYMENT SECURITY LAW, Baton Rouge, LA: Louisiana Department of Labor, Office of Employment Security, Research and Statistics Unit.

2. MONTHLY ENERGY REVIEW and ANNUAL ENERGY REVIEW, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.

3. NATURAL GAS MONTHLY and NATURAL GAS ANNUAL, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.

4. BAKER HUGHES ROTARY RIGS COUNT, Houston, TX: Baker Hughes Inc.

5. October 2002 to Present, NATURAL GAS WEEK, Washington, D.C.: Energy Intelligence Group. Prior, SURVEY OF DOMESTIC SPOT MARKET PRICES, Houston, TX: Dynegy Inc. (formerly Natural Gas Clearinghouse).

6. PETROLEUM MARKETING MONTHLY and PETROLEUM MARKETING ANNUAL, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.

7. PETROLEUM SUPPLY MONTHLY and PETROLEUM SUPPLY ANNUAL, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.

8. SEVERANCE TAX, Baton Rouge, LA: Louisiana Department of Revenue, Severance Tax Section.

9. U.S. CRUDE OIL, NATURAL GAS and NATURAL GAS LIQUIDS RESERVES, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.

10. THE WALL STREET JOURNAL, Gulf Coast Edition, Beaumont, TX: Dow Jones and Company.

11. STATE ENERGY DATA REPORT, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.

12. FEDERAL OFFSHORE STATISTICS, Washington, D.C.: U.S. Department of the Interior, Bureau of Ocean Energy Management.

13. NATURAL RESOURCES REVENUE, Denver, CO: U.S. Department of the Interior, Office of Natural Resources Revenue.

14. ELECTRIC POWER MONTHLY, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.

- Unless otherwise specified, data is from the Louisiana Department of Natural Resources.

An Explanation of Changes in Oil and Gas Statistics

Note # 1

Current production data and all future reports will reflect changes due to modifications in the reporting system by the Department of Natural Resources Office of Conservation, Production Audit Section. Only the oil and gas production data in state jurisdiction is affected.

The new data for oil will not include crude oil, condensate or raw make recovered from natural gas processing plants. In the past these products were added to the state production as crude oil or condensate.

A separate report on gas plants liquids production is not available at the present.

In addition, the gas data system has been adjusted to reflect reporting production on the date produced. Previously it had been reported on the date first purchased.

The new reporting system should produce more accurate and timely data.

The Technology Assessment Division is not the source of these data sets, but merely reports data provided to us by the Office of Conservation. However, we understand that users of our time series data need consistency over time. For that reason our time series has been adjusted backwards to 1980 using these new definitions.

Note # 2

Producing oil and gas well data since 2000 reflect changes due to modifications in the reporting system by the Department of Natural Resources Office of Conservation.

The new data for oil and natural gas producing wells count them as productive if they had any production in the month, previous system counted only the producing wells at the end of the month. The new reporting system should produce more accurate and timely data.

The Technology Assessment Division is not the source of these data sets, but merely reports data provided to us by the Office of Conservation. However, we understand that users of our time series data need consistency over time, but due to lack of accurate information the time series has been adjusted backwards to 2000 using the new system.

Other factors that affected the big increase on wells numbers are the big jump on energy prices around 2000, and the inactive wells

Outer Continental Shelf Lands Act (OCSLA)

The OCSLA of 1953 (67 Stat. 462), as amended (43 U.S.C. 1331 et seq. (1988)) established Federal jurisdiction over submerged lands on the Outer Continental Shelf (OCS) seaward of State boundaries. Under the OCSLA, the Secretary of the Interior is

responsible for the administration of mineral exploration and development of the OCS. The Act empowers the Secretary to grant leases to the highest qualified responsible bidder(s) on the basis of sealed competitive bids and to formulate such regulations as necessary to carry out the provisions of the Act. The Act, as amended, provides guidelines for implementing an OCS oil and gas exploration and development program. The basic goals of the Act include the following:

1. To establish policies and procedures for managing the oil and natural gas resources of the OCS that are intended to result in expedited exploration and development of the OCS in order to achieve national economic and energy policy goals, assure national security, reduce dependence on foreign sources, and maintain a favorable balance of payments in world trade.
2. To preserve, protect, and develop oil and natural gas resources of the OCS in a manner that is consistent with the need
    (a) to make such resources available to meet the nation's energy needs as rapidly as possible;
    (b) to balance orderly resource development with protection of the human, marine, and coastal environments;
    (c) to ensure the public a fair and equitable return on the resources of the OCS;
    (d) to preserve and maintain free enterprise competition.
3. To encourage development of new and improved technology for energy resource production, this will eliminate or minimize risk of damage to the human, marine, and coastal environments.

Royalty revenues from Federal offshore leases on the OCS are distributed to the Land and Water Conservation Fund, the Historic Preservation Fund, and the General Fund of the U.S. Treasury. Transfers are made in each fiscal year from OCS royalties, rentals and bonuses in order to maintain the Land and Water Conservation Fund's annual authorization of $900 million. Annually, $150 million is put into the Historic Preservation Fund. The balance of offshore revenue receipts is directed to the General Fund of the U.S. Treasury.

Section 8(g) of the OCSLA Amendments of 1978 provided that the states were to receive a "fair and equitable" division of revenues generated from the leasing of lands within 3 miles of the seaward boundary of a coastal state that contains one or more oil and gas pools or fields underlying both the OCS and lands subject to the jurisdiction of the state. The states and the federal government, however, were unable to reach agreement concerning the meaning of the term "fair and equitable". Revenues generated in the 3-mile boundary zone were subsequently placed into an escrow fund in August 1979.

Congress resolved the dispute over the meaning of "fair and equitable" in the Outer Continental Shelf Lands Act Amendments of 1985, Public Law 99-272. The amendments required that the affected coastal state will receive 27 percent of the

revenues generated from the leasing and development of oil and natural gas resources located in the Federal 8(g) zone. The law provided for the following distribution of revenues to Louisiana under section 8(g):

Before 1986: Louisiana did not receive any shared revenue from OCS production prior to 1986.

1986: Louisiana received a payment of $68.7 million from royalties, rentals and bonuses collected in 1986 and prior years.

1998-2000: In 1987 Louisiana received an initial settlement payment of $572 million from the escrow funds. A series of annual settlement payments have been disbursed to the states over a 15-year period along with an annual disbursement of 27 percent of royalty, rental, and bonus revenues received within each affected state's 8(g) zone. The annual settlement payments are: From 1987 through 1991, Louisiana received an annual settlement payment of $2.52 million per year. From 1992 through 1996, the state received an annual settlement payment of $5.88 million per year. Beginning in 1997 until the last payment in 2001, Louisiana will receive an annual settlement payment of approximately $8.40 million per year.

2002 and After: No further settlement payments; states receive only a recurring annual disbursement of 27 percent of royalty, rental, and bonus revenues received within each affected state's 8(g) zone. Louisiana will receive an annual disbursement of 27 percent of royalty, rental, and bonus revenues received within Louisiana's affected 8(g) zone.

Gulf of Mexico Energy Security Act (GOMESA)

On December 20, 2006, the President signed into law the GOMESA of 2006 (Pub. Law 109-432). The Act significantly enhances OCS oil and gas leasing activities and revenue sharing in the Gulf of Mexico (GOM). The Act:

A. Stipulated that 8.3 million acres be offered for oil and gas leases. This acreage is included in both the Central Gulf Planning Area and the Eastern Gulf Planning Area. The 8.3 million acres consist of approximately 2 million acres in the Central Gulf was first that was offered for lease after enactment of the law was and was included in Lease Sale 205 in October 2007; additional .5 million acres in the Eastern Gulf received additional environmental review and was offered in Lease Sale 224 in March 2008; and the remaining 5.8 million acres in the Central Gulf was offered for leasing at Lease Sale 208 in March, 2009.

B. Updated moratoria (bans) areas in the Gulf. Those tracts in the Eastern Gulf of Mexico that are within 125 miles of Florida, all tracts east of the Military Mission Line, and tracts in the Central Gulf of Mexico within 100 miles of Florida that are included in the moratorium area which extends until 2022.

C. Created revenue sharing provisions for four Gulf oil and gas producing States – Alabama, Louisiana, Mississippi and Texas, and their coastal political subdivisions. There are two phases in the GOMESA revenue sharing.

   a. Phase 1: Beginning in Fiscal Year 2007, 37.5 percent of all qualified OCS revenues, including bonus bids, rentals and production royalty, will be shared among the four States and their coastal political subdivisions from those new leases issued in the 181 Area in the Eastern planning area (also known as the 224 Sale Area) and the 181 South Area. Additionally, 12.5 percent of revenues are allocated to the Land and Water Conservation Fund (LWCF). The final regulations for Phase I revenue sharing were issued on December 23, 2008 and specify that the Bureau intends to disburse funds on or before March 31st of the fiscal year following the fiscal year to which the qualified OCS revenues were attributed..

   b. Phase 2: The second phase of GOMESA revenue sharing begins in Fiscal Year 2017. It expands the definition of qualified OCS revenues to include receipts from GOM leases issued either after December 20, 2006, in the 181 Call Area, or, in 2002–2007 GOM Planning Areas subject to withdrawal or moratoria restrictions. A revenue sharing cap of $500 million per year for the four Gulf producing States, their CPS's and the LWCF applies from fiscal years 2016 through 2055. The $500 million cap does not apply to qualified revenues generated in those areas associated with Phase I of the GOMESA program. The Bureau will address the second phase of GOMESA revenue sharing in a subsequent rulemaking.

D. Allowed for the exchange of existing leases in the moratorium areas for bonus or royalty credit to be used in the Gulf of Mexico. A credit will be provided to lessees who relinquish certain eligible leases in the Gulf of Mexico. Leases are considered eligible if they lie within 125 miles of the Florida coast in the Eastern Planning Area or within 100 miles of the Florida coast in the Central Planning Area. The lessees will be allowed to use the credits in lieu of monetary payment for either a lease bonus bid or royalty due on oil and gas production from most other leases in the Gulf of Mexico or transfer the credits to other Gulf of Mexico lessees for their use.

Appendix C

Glossary

Bonus. A cash payment by the lessee for the execution of a lease. A lease is a contract that gives a lessee the right: (a) To search for minerals, (b) to develop the surface for extraction, and (c) to produce minerals within the area covered by the contract.

Casinghead Gas. All natural gas released from oil during the production of oil from underground reservoirs.

City-Gate. A point or measuring station at which a gas distribution company receives gas from a pipeline company or transmission system.

Commercial Consumption. Gas used by non-manufacturing organizations such as hotels, restaurants, retail stores, laundries, and other service enterprises. This also includes gas used by local, state, and federal agencies engaged in non-manufacturing activities.

Condensate. (See Lease Condensate)

Crude Oil. A mixture of hydrocarbons that existed in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities.

CRUDE OIL PRICES

Domestic Wellhead. The average price at which all domestic crude oil is first purchased.

Imports FOB. The price actually charged at the producing country's port of loading. It is the responsibility of the buyer to arrange for transportation and insurance.

Imports Landed. The dollar per barrel price of crude oil at the port of discharge. It includes crude oil landed in the U.S. and U.S. company-owned refineries in the Caribbean, but excludes crude oil from countries that export only small amounts to the United States. The landed price does not include charges incurred at the port of discharge.

Imports OPEC FOB. The average price actually charged by OPEC at their country's port of loading. This price does not include transportation or insurance.

OCS Gulf. The average price at which all offshore, Outer Continental Shelf, Central Gulf region crude oil is first purchased as reported by the U.S. Department of Energy, Energy Information Administration.

Refinery Acquisition Costs (RAC). The average price paid by refiners in the U.S. for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners.

a) **Domestic**. The average price of crude oil produced in the United States or from the Outer Continental Shelf of the U.S.

b**) Imports**. The average price of any crude oil not reported as domestic.

Refinery Posted. The average price from a survey of selected refiners' postings for Light Louisiana Sweet (LLS) crude, which is effective at the middle and at the end of the month.

Severance Tax. The average wellhead price calculated from oil severance taxes paid to the Louisiana Department of Revenue and Taxation.

Spot Market. The spot market crude oil price is the average of daily Light Louisiana Sweet (LLS) crude price futures traded in the month and usually includes transportation from the producing field to the St. James, Louisiana terminal.

State. The average price at which all Louisiana crude oil, excluding Louisiana OCS, is first purchased as reported in a survey by the U.S. Department of Energy, Energy Information Administration.

State Royalty. The average wellhead price from its royalty share of oil produced in state lands or water bottoms. The price is calculated by the ratio of received oil royalty gross revenue divided by royalty volume share reported to the Louisiana Department of Natural Resources.

Developmental Well. Wells drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

Dry Gas. (See Natural Gas, "Dry")

Dry Hole. An exploratory or developmental well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Electric Utility Consumption. Gas used as fuel in electric utility plants.

Exploratory Well. A well drilled to find and produce oil or gas in an unproved area, to find a new reservoir in an old field, or to extend the limits of a known oil or gas reservoir.

Exports. Crude oil or natural gas delivered out of the Continental United States and Alaska to foreign countries.

Extraction Loss. The reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Federal Offshore or Federal OCS. (See Louisiana OCS)

FOB Price (Free on board). The price actually charged at the producing country's port of loading. The reported price includes deductions for any rebates and discounts or additions of premiums where applicable and should be the actual price paid with no adjustment for credit terms.

Gate. (See City-Gate)

Gross Revenue. Amount of money received from a purchaser, including charges for field gathering, transportation from wellhead to purchaser receiving terminal, and state production severance tax.

Gross Withdrawals. (See Natural Gas, Gross Withdrawals)

Imports. Crude oil or natural gas received in the Continental United States, Alaska, and Hawaii from foreign countries.

Industrial Consumption. Natural gas used by manufacturing and mining establishments for heat, power, and chemical feedstock.

Lease Condensate. A mixture consisting primarily of pentane and heavier hydrocarbons that is recovered as a liquid from natural gas in lease or field separation facilities, exclusive of products recovered at natural gas processing plants or facilities.

Lease Separator. A facility installed at the surface for the purpose of: (a) Separating gases from produced crude oil and water at the temperature and pressure conditions of the separator, and/or (b) separating gases from that portion of the produced natural gas stream which liquefies at the temperature and pressure conditions of the separator.

Louisiana OCS. Submerged lands under federal regulatory jurisdiction that comprise the Continental Margin or Outer Continental Shelf adjacent to Louisiana and seaward of the Louisiana Offshore region.

Louisiana Offshore. A 3-mile strip of submerged lands under state regulatory jurisdiction located between the State coast line and the OCS region.

Louisiana Onshore. Region defined by the State boundary and the coast line.

Major Pipeline Company. A company whose combined sales for resale, and gas transported interstate or stored for a fee, exceeded 50 million thousand cubic feet in the previous year.

Marketed Production. (See Natural Gas, Marketed Production)

Natural Gas. A mixture of hydrocarbon compounds and small quantities of various non-hydrocarbons existing in the gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions. The principal hydrocarbons usually contained in the mixture are methane, ethane, propane, butanes and pentanes. Typical non-hydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide and nitrogen. Under reservoir conditions, natural gas and the liquefiable portions occur either in a single gaseous phase in the reservoir or in solution with crude oil, and are not distinguishable at the time as separated substances.

Natural Gas, "Dry". The actual or calculated volume of natural gas which remains after: (a) The liquefiable hydrocarbon portion has been removed from the gas stream, and (b) any volumes of non-hydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable.

Natural Gas, Gross Withdrawals. It is the full well-stream volume, including all natural gas plant liquids and all non-hydrocarbon gases, but excluding lease condensate.

Natural Gas Liquids. Lease condensate plus natural gas plant liquids.

Natural Gas, Marketed Production. Gross withdrawals less gas used for pressurizing, quantities vented and flared, and non-hydrocarbon gases removed in treating or processing operations. It includes all quantities of gas used in field and processing operations.

Natural Gas, OCS Gas. OCS gas volume is as reported. Most are "dry" gas, though some are "wet" gas.

Natural Gas Plant Liquids. Those hydrocarbons remaining in a natural gas stream after field separation and later separated and recovered at a natural gas processing plant or cycling plant through the processes of absorption, adsorption, condensation, fractionation or other methods. Generally such liquids consist of propane and heavier hydrocarbons and are commonly referred to as condensate, natural gasoline, or liquefied petroleum gases. Where hydrocarbon components lighter than propane (e.g., ethane) are recovered as liquids, these components are included with natural gas liquids.

NATURAL GAS PRICES

Henry Hub Settled NYMEX. The last trading day price for the month before delivery posted in the New York Mercantile Exchange for natural gas at Henry Hub.

Spot Market. The average price of natural gas paid at the regional spot market receipt points or zones as reported by the Energy Intelligence Group's NATURAL GAS WEEK. The data are a volume weighted average and reflect market activity information gathered during the entire month before the publication date, regardless of delivery date. The data are not an arbitrary weighting by production zone, but a true deal-by-deal volume weighting of prices gathered. Data prior to October 2002 were from Dynegy's survey of the domestic natural gas spot market receipt points or zones located in Louisiana. The new and old points or zones are as follows:

NATURAL GAS PIPELINES AND SALES POINTS FOR PRICES

Dynegy	Natural Gas Week
ANR	ANR
Eunice, LA	Patterson, LA
COLUMBIA GULF	COLUMBIA GULF TRANSMISSION CO.
Average Louisiana onshore laterals	Average of Erath, Rayne, and Texaco Henry Plant in Louisiana
LOUISIANA INTRASTATES	LOUISIANA INTRASTATES
Average of Faustina, Bridgeline, LIG, and Monterrey pipelines	Average of LIG, Bridgeline, LRC, and Acadian pipelines
SOUTHERN NATURAL	SONAT
South Louisiana	Saint Mary Parish, LA
TENNESSEE GAS	TENNESSEE GAS
Vinton, LA	Average Zone 1 of 500 & 800
TEXAS GAS TRANSMISSION	TEXAS GAS TRANSMISSION
Zone 1 (North Louisiana)	Zone 1 (North Louisiana)
GULF SOUTH PIPELINE	TRUNKLINE GAS CO.
	HENRY HUB

OCS. The average wellhead price calculated from sales and volumes from Louisiana OCS natural gas as reported by the U.S. Department of Interior, Minerals Management Service.

State Royalty. The average wellhead price calculated from revenue received and volumes reported to the Louisiana Department of Natural Resources.

State Wells. The average price of gas sold at Louisiana wellhead. This price includes: (a) Value of natural gas plant liquids subsequently removed from the gas, (b) gathering and compression charges, and (c) state production, severance, and/or similar charges.

MAJOR PIPELINES PURCHASES.

a) **Domestic Producers**. The average price of natural gas produced in the United States or from the Outer Continental Shelf of the U.S.

b**) Foreign Imports**. The average price of any natural gas not reported as domestic.

Wellhead. The wellhead sales price including: (a) Value of natural gas plant liquids subsequently removed from the gas, (b) gathering and compression charges, and (c) state production, severance, and/or similar charges.

Natural Gas, Wet After Lease Separation. The volume of natural gas, if any, remaining after: (a) Removal of lease condensate in lease and/or field separation facilities, and (b) exclusion of non-hydrocarbon gases where they occur in sufficient quantities to render the gas unmarketable. Also excludes gas returned to formation in pressure maintenance and secondary recovery projects and gas returned to earth from cycling and/or gasoline plants. Natural gas liquids may be recovered from volumes of natural gas, wet after lease separation, at natural gas processing plants.

Organization of Petroleum Exporting Countries (OPEC). Countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

Outer Continental Shelf (OCS). All submerged lands that comprise the Continental Margin adjacent to the U.S. and seaward of the state offshore lands. Production in the OCS is under federal regulatory jurisdiction and ownership.

Processing Plant. A facility designed to recover natural gas liquids from a stream of natural gas which may or may not have passed through lease separators and/or field separation facilities. Another function of natural gas processing plants is to control the quality of the processed natural gas stream.

Proved Reserves of Crude Oil. As of December 31 of the report year, the estimated quantities of all liquids defined as crude oil which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions. Volumes of crude oil in underground storage are not considered proved reserves.

Proved Reserves of Lease Condensate. The volumes of lease condensate as of December 31 of the report year expected to be recovered in future years in conjunction with the production of proved reserves of natural gas as of December 31 of the report year.

Proved Reserves of Natural Gas. The estimated quantities of natural gas as of December 31 of the report year which analysis of geologic and engineering data demonstrates with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions. Volumes of natural gas in underground storage are not considered proved reserves.

Proved Reserves of Natural Gas Liquids. The volumes of natural gas liquids (including lease condensate) as of December 31 of the report year, which analysis of

geologic and engineering data demonstrates with reasonable certainty to be separable in the future from proved natural gas reserves under existing economic and operating conditions.

Rental. Money paid by the lessee to maintain the lease after the first year if it is not producing. A lease is considered expired when rental is not paid on time on an unproductive lease.

Reservoir. A porous and permeable underground formation containing an individual and separate natural accumulation of producible hydrocarbons (oil and/or gas) which is confined by impermeable rock or water barriers and is characterized by a single natural pressure system. Reservoirs are considered proved if economic producibility is supported by actual production or conclusive formation tests (drill stem or wire line), or if economic producibility is supported by core analysis and/or electric or other log interpretations. The area of a gas or oil reservoir considered proved includes: (a) That portion delineated by drilling and defined by gas-oil and/or gas-water contacts, if any; and (b) the immediately adjoining portions not yet drilled, but which can be reasonably judged as economically productive on the basis of available geological and engineering data.

Residential Consumption. Gas used in private dwellings, including apartments, for heating, cooking, water heating, and other household uses.

Royalty (Including Royalty Override) Interest. Those interests which entitle their owner(s) to a share of the mineral production from a property or to a share of the proceeds from there. These interests do not contain the rights and obligations of operating the property and normally do not bear any of the costs of exploration, development, or operation of the property.

Royalty Override (Or Overriding Royalty). An interest in oil and gas produced at the surface free of any cost of production. It is royalty in addition to the usual landowner's royalty reserved to the lessor. The Layman's Guide to Oil & Gas by Brown & Miller defines overriding royalty as a percentage of all revenue earned by a well and carrying no cost obligation.

State Offshore. (See Louisiana Offshore**)**

Wet After Lease Separation. (See Natural Gas, Wet After Lease Separation)

Wildcat Well. (See Developmental Well)

Appendix D

Gas Production at 14.73 psia

Page

Appendix D-1

LOUISIANA STATE GAS PRODUCTION, WET AFTER LEASE SEPARATION

Natural Gas and Casinghead Gas, Excluding OCS

(Thousand Cubic Feet (MCF) at 14.73 psia and 60 degrees Fahrenheit)*

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1992	380,916,600	1,188,458,789	116,287,491	1,685,662,880
1993	367,510,962	1,160,338,473	126,526,532	1,654,375,967
1994	361,971,515	1,090,345,158	130,967,154	1,583,283,827
1995	374,569,365	1,067,857,751	139,240,110	1,581,667,226
1996	423,597,332	1,085,724,307	162,694,485	1,672,016,124
1997	450,692,967	1,028,512,775	164,180,018	1,643,385,760
1998	437,854,747	1,028,913,898	147,211,205	1,613,979,851
1999	393,199,782	976,555,159	118,149,642	1,487,904,583
2000	389,046,189	998,183,657	109,700,568	1,496,930,414
2001	398,669,527	1,013,161,682	113,437,548	1,525,268,757
2002	394,821,438	894,110,994	100,203,563	1,389,135,995
2003	424,829,404	861,626,563	85,083,840	1,371,539,808
2004	484,946,605	822,311,081	69,498,690	1,376,756,377
2005	548,641,901	707,489,823	54,557,630	1,310,689,355
2006	583,273,660 r	725,050,318 r	68,621,268 r	1,376,945,246 r
2007	623,722,576 r	685,754,611 r	72,842,683 r	1,382,319,870 r
2008	697,750,463 r	603,273,453 r	85,617,262 r	1,386,641,178 r
2009	980,199,338 r	502,117,650 r	76,362,017 r	1,558,679,004 r
2010	1,730,250,382 r	418,936,388 r	69,728,805 r	2,218,915,576 r
2011	2,564,717,038 r	405,548,498 r	71,251,875 r	3,041,517,412 r
January	233,039,624 r	33,009,857 r	6,195,708 r	272,245,189 r
February	205,485,759 r	30,333,983 r	6,124,587 r	241,944,328 r
March	217,821,813 r	32,098,540 r	7,070,816 r	256,991,169 r
April	206,871,994 r	31,688,796 r	7,058,589 r	245,619,379 r
May	217,292,274 r	32,333,792 r	6,931,541 r	256,557,608 r
June	217,217,689 r	31,086,252 r	6,788,958 r	255,092,899 r
July	226,391,273 r	32,322,659 r	6,627,821 r	265,341,754 r
August	225,248,532 r	29,151,532 r	5,220,957 r	259,621,020 r
September	212,006,412 r	28,581,009 r	6,168,356 r	246,755,777 r
October	212,097,908 r	33,817,745 r	6,856,172 r	252,771,825 r
November	194,822,849 r	34,018,548 r	6,466,890 r	235,308,287 r
December	195,072,993 r	35,077,754 r	6,827,169 r	236,977,916 r
2012 Total	**2,563,369,120 r**	**383,520,465 r**	**78,337,564 r**	**3,025,227,150 r**
January	189,882,744	33,320,964	6,459,346	229,663,054
February	168,454,073	31,028,766	5,634,064	205,116,903
March	178,735,872	34,684,737	6,147,693	219,568,303
April	168,854,851	32,505,071	5,589,970	206,949,891
May	169,854,258	35,701,609	5,706,199	211,262,066
June	160,477,755	33,830,576	5,546,328	199,854,659
July	160,021,101	35,034,848	5,592,677	200,648,627
August	152,306,544	33,968,252	5,452,255	191,727,051
September	137,133,300	33,383,351	4,892,407	175,409,059
October	128,193,360	31,471,468	4,837,245	164,502,073
November	135,300,307 p	33,288,900 p	5,242,192 p	173,831,399 p
December	134,569,862 p	33,181,471 p	5,181,598 p	172,932,931 p
2013 Total	**1,883,784,028 p**	**401,400,012 p**	**66,281,977 p**	**2,351,466,017 p**

e Estimated r Revised p Preliminary

* See Table 11 corresponding volumes at 15.025 psia and footnote in Appendix B.

Appendix D-2

LOUISIANA TOTAL GAS PRODUCTION, WET AFTER LEASE SEPARATION

Natural Gas and Casinghead Gas

(Thousand Cubic Feet (MCF) at 14.73 psia and 60 degrees Fahrenheit)*

	ONSHORE	OFFSHORE		TOTAL
DATE		State	Federal OCS[12]	
1992	1,569,375,389	116,287,491	3,338,101,465	5,023,764,345
1993	1,527,849,435	126,526,532	3,386,808,671	5,041,184,638
1994	1,452,316,673	130,967,154	3,492,406,781	5,075,690,608
1995	1,442,427,115	139,240,110	3,636,068,016	5,217,735,242
1996	1,509,321,639	162,694,485	3,783,483,306	5,455,499,430
1997	1,479,205,742	164,180,018	3,901,964,998	5,545,350,758
1998	1,466,768,646	147,211,205	3,890,978,799	5,504,958,650
1999	1,369,754,941	118,149,642	3,913,456,139	5,401,360,722
2000	1,387,229,846	109,700,568	3,837,150,457	5,334,080,871
2001	1,411,831,209	113,437,548	3,895,134,261	5,420,403,019
2002	1,288,932,431	100,203,563	3,527,116,066	4,916,252,060
2003	1,286,455,968	85,083,840	3,342,004,232 e	4,713,544,040 e
2004	1,307,257,686	69,498,690	2,897,440,676 e	4,274,197,053 e
2005	1,256,131,724	54,557,630	2,229,362,826 e	3,540,052,181 e
2006	1,308,323,978	68,621,268	2,089,462,261 e	3,466,407,507 e
2007	1,309,477,187	72,842,683	2,062,554,663 e	3,444,874,533 e
2008	1,301,023,916 r	85,617,262	1,677,562,129 e	3,064,203,307 e r
2009	1,482,316,988 r	76,362,017 r	1,761,781,308 e	3,320,460,313 e r
2010	2,149,186,770 r	69,728,805 r	1,668,703,852 e r	3,887,619,428 e r
2011	2,970,265,537 r	71,251,875 r	1,354,801,260 e r	4,396,318,672 e r
January	266,049,480 r	6,195,708 r	105,423,639 e	377,668,828 e
February	235,819,741 r	6,124,587 r	97,380,941 e	339,325,269 e
March	249,920,353 r	7,070,816 r	105,387,311 e	362,378,480 e
April	238,560,790 r	7,058,589 r	96,887,774 e	342,507,153 e
May	249,626,066 r	6,931,541 r	93,611,607 e	350,169,215 e
June	248,303,941 r	6,788,958 r	87,007,840 e	342,100,738 e
July	258,713,933 r	6,627,821 r	98,599,164 e	363,940,918 e
August	254,400,063 r	5,220,957 r	82,396,662 e	342,017,683 e
September	240,587,421 r	6,168,356 r	80,542,660 e	327,298,437 e
October	245,915,653 r	6,856,172 r	95,049,736 e	347,821,561 e
November	228,841,397 r	6,466,890 r	96,564,837 e	331,873,124 e
December	230,150,747 r	6,827,169 r	94,165,369 e	331,143,285 e
2012 Total	**2,946,889,585 r**	**78,337,564 r**	**1,133,017,539 e**	**4,158,244,689 e**
January	223,203,708	6,459,346	90,061,915 e	319,724,970 e
February	199,482,839	5,634,064	82,356,275 e	287,473,178 e
March	213,420,609	6,147,693	88,413,159 e	307,981,462 e
April	201,359,921	5,589,970	86,771,200 e	293,721,091 e
May	205,555,867	5,706,199	85,570,621 e	296,832,687 e
June	194,308,331	5,546,328	77,012,742 e	276,867,401 e
July	195,055,949	5,592,677	84,616,775 e	285,265,402 e
August	186,274,796	5,452,255	84,177,101 e	275,904,153 e
September	170,516,651	4,892,407	82,947,774 e	258,356,832 e
October	159,664,828	4,837,245	82,929,557 e	247,431,631 e
November	168,589,207 p	5,242,192 p	N/A	173,831,399 p
December	167,751,333 p	5,181,598 p	N/A	172,932,931 p
2013 Total	**2,285,184,040 p**	**66,281,977 p**	**844,857,120 e**	**3,196,323,137 e p**

e Estimated r Revised p Preliminary

* See Table 12 corresponding volumes at 15.025 psia and footnote in Appendix B.

NOTE: The 2003 Federal OCS production is estimated from the marketed production

Appendix D-3

UNITED STATES OCS GAS PRODUCTION[12]

Natural Gas and Casinghead Gas

(Thousand Cubic Feet (MCF) at 14.73 psia and 60 degrees Fahrenheit)*

YEAR	LOUISIANA	TEXAS	CALIFORNIA	TOTAL
1968	1,413,467,614	109,910,788	799,685	1,524,178,086
1969	1,822,544,152	127,096,983	4,845,851	1,954,486,985
1970	2,273,147,052	133,300,405	12,229,147	2,418,676,604
1971	2,634,014,045	127,357,909	15,671,479	2,777,043,433
1972	2,881,364,748	147,156,460	10,033,581	3,038,554,789
1973	3,055,628,252	148,673,638	7,286,549	3,211,588,439
1974	3,349,170,882	159,979,402	5,573,642	3,514,723,926
1975	3,332,169,075	122,572,765	3,951,633	3,458,693,473
1976	3,499,865,919	92,582,425	3,475,201	3,595,923,545
1977	3,647,513,694	86,943,285	5,526,469	3,739,983,448
1978	4,149,731,158	231,857,451	5,269,758	4,386,858,368
1979	4,158,521,732	511,590,610	5,540,606	4,675,652,948
1980	4,013,707,456	624,642,529	6,018,184	4,644,368,168
1981	4,106,494,612	730,275,835	13,018,920	4,849,789,367
1982	3,803,740,070	858,020,303	18,107,445	4,679,867,818
1983	3,173,892,371	850,817,216	24,652,314	4,049,361,901
1984	3,578,740,589	931,293,587	47,292,436	4,557,326,612
1985	3,116,884,507	834,926,527	65,851,130	4,017,662,165
1986	2,927,832,280	978,370,557	60,261,186	3,966,464,023
1987	3,180,107,212	1,204,488,343	55,902,749	4,440,498,305
1988	3,096,881,645	1,178,422,567	50,152,326	4,325,456,538
1989	3,006,576,077	1,165,112,959	51,809,130	4,223,498,166
1990	3,706,324,064	1,348,075,368	50,973,576	5,105,373,008
1991	3,289,968,620	1,184,936,500	52,894,097	4,527,799,217
1992	3,338,101,465	1,239,389,554	56,337,793	4,701,108,883
1993	3,386,808,671	1,027,937,761	53,194,699	4,544,502,364
1994	3,492,406,781	1,014,204,140	54,633,354	4,669,972,144
1995	3,636,068,016	908,520,055	55,887,350	4,711,732,699
1996	3,783,483,306	972,873,764	68,121,164	5,054,719,057
1997	3,901,964,998	965,334,787	74,813,429	5,111,087,682
1998	3,890,978,799	867,606,779	76,486,583	4,885,443,089
1999	3,913,456,139	814,124,878	79,367,732	5,034,470,230
2000	3,837,150,457	886,473,041	77,598,107	5,018,433,562
2001	3,895,134,261	916,020,487	72,367,542	5,248,963,271

	GULF OF MEXICO		PACIFIC	TOTAL
	CENTRAL	WESTERN		
2002	3,580,828,493	1,019,741,703	69,174,162	4,699,918,283
2003	3,392,897,697	1,087,114,884	59,258,478	4,593,381,866
2004	2,941,564,138	1,121,137,433	55,749,584	4,187,036,121
2005	1,973,860,605	788,940,947	55,171,229	2,819,465,782
2006	2,165,245,866	795,608,571	41,216,237	3,002,354,380
2007	2,137,362,345	648,316,715	46,427,556	2,878,983,938
2008	1,738,406,351	491,513,872	45,801,259	2,417,579,275
2009	1,825,680,112	476,309,942	42,054,700	2,527,203,879
2010	1,729,496,595	421,043,399	42,025,119	2,317,635,691
2011	1,403,565,064	345,016,242	37,311,573	1,895,983,001
2012	1,172,198,516	316,778,321	27,807,980	1,564,203,344

NOTE: Starting in 2002 MMS has not formally published production by state adjacent areas

e Estimated r Revised p Preliminary

* See Table 15 corresponding volumes at 15.025 psia and footnote in Appendix B.

Appendix D-4

UNITED STATES NATURAL GAS AND CASINGHEAD GAS PRODUCTION[3]

(Billion Cubic Feet (BCF) at 14.73 psia and 60 degrees Fahrenheit)*

DATE	GROSS	WET AFTER LEASE SEPARATION	MARKETED	DRY	GROSS IMPORTS
1992	22,132	18,879	18,712	17,840	2,138
1993	22,725	19,209	18,982	18,095	2,350
1994	23,581	19,938	19,710	18,821	2,624
1995	23,743	19,790	19,506	18,598	2,841
1996	24,114	20,084	19,812	18,854	2,937
1997	24,213	20,122	19,865	18,902	2,994
1998	24,108	20,064	19,961	19,024	3,152
1999	23,823	19,915	19,805	18,832	3,586
2000	24,174	20,289	20,198	19,182	3,782
2001	24,501	20,667	20,570	19,616	3,977
2002	23,941	19,984	19,921	18,964	4,015
2003	24,119	20,072	19,974	19,099	3,944
2004	23,970	19,615	19,517	18,591	4,259
2005	23,457	19,046	18,927	18,051	4,341
2006	23,507	19,539	19,382	18,476	4,186
2007	24,591	20,340	20,019	19,089	4,608
2008	25,636	21,279	21,112	20,159	3,984
2009	26,057	21,813	21,648	20,624	3,751
2010	26,816	22,548	22,382	21,316	3,741
2011	28,479	24,195	24,036	22,902	3,469
January	2,571 r	2,172 r	2,155 r	2,048 r	281 r
February	2,360 r	1,991 r	1,976 r	1,879 r	270 r
March	2,524 r	2,138 r	2,121 r	2,016 r	265 r
April	2,417 r	2,064 r	2,047 r	1,946 r	243 r
May	2,491 r	2,141 r	2,123 r	2,018 r	259 r
June	2,377 r	2,063 r	2,042 r	1,941 r	260 r
July	2,465 r	2,186 r	2,164 r	2,057 r	281 r
August	2,374 r	2,173 r	2,154 r	2,048 r	281 r
September	2,410 r	2,116 r	2,097 r	1,993 r	258 r
October	2,557 r	2,188 r	2,171 r	2,064 r	253 r
November	2,471 r	2,121 r	2,104 r	2,000 r	234 r
December	2,524 r	2,172 r	2,155 r	2,048 r	252 r
2012 Total	**29,542 r**	**25,526 r**	**25,308 r**	**24,058 r**	**3,138 r**
January	2,536	2,144	2,127	2,022	278
February	2,307	1,959	1,942	1,844	237
March	2,536	2,154	2,136	2,026	248
April	2,473	2,103	2,086	1,979	221
May	2,541	2,184	2,166	2,056	234
June	2,444	2,114	2,097	1,990	237
July	2,550	2,205	2,188	2,076	236
August	2,546	2,214	2,194	2,076	236
September	2,466	2,124	2,106	1,990	245
October	2,574	2,214	2,196	2,077	209
November	N/A	N/A	N/A	N/A	N/A
December	N/A	N/A	N/A	N/A	N/A
2013 Total	**24,975**	**21,415**	**21,238**	**20,136**	**2,381**

e Estimated r Revised p Preliminary

* See Table 16 corresponding volumes at 15.025 psia and footnote in Appendix B.

Appendix E

Louisiana Energy Topics

RESULTS OF THE EMPOWER LOUISIANA TRANSPORTATION EFFICIENCY AND ALTERNATIVE FUELS GRANT PROGRAM

by

Bryan Crouch, P.E.

The EmPower Louisiana Transportation Efficiency and Alternative Fuels Grant Program (the Program) is now finished and all projects that received funding through the Program are complete. The Program was established by the Louisiana Department of Natural Resources (DNR) for the purpose of implementing energy efficient traffic and street lighting and increasing the use of natural gas as a vehicle fuel throughout the State of Louisiana. The Program was funded through the U.S. Department of Energy with dollars allocated from the American Recovery and Reinvestment Act (ARRA) of 2009.

Energy efficient traffic and streetlights consume up to 80% less energy and last many times longer than incandescent lighting; and natural gas, when used as a vehicle fuel, costs approximately 40% less than gasoline or diesel. All of these technologies currently have significantly higher capital costs than traditional alternatives.

Sixteen grants totaling $8.3 million were awarded from the Program, with grant recipients additionally contributing an estimated $16.3 million. The funding was used to purchase energy efficient traffic signals and streetlights, purchase refueling equipment for 11 compressed natural gas (CNG) stations, and to purchase or convert over 200 CNG vehicles.

An estimated 1.5 million gallons of gasoline and diesel will be displaced annually, and almost 400,000 kWh of electricity saved annually, as a result of these projects. The Program has also served to increase interest statewide in natural gas vehicles and as a solid foundation on which to build Louisiana's natural gas vehicle infrastructure.

Some highlighted projects from the Program include:

- The City of Shreveport replaced 18 of the city's diesel-powered garbage trucks with new CNG-powered trucks. Garbage trucks burn large amounts fuel, and by switching to CNG, the city will see a significant reduction in fuel costs. The CNG trucks are quieter and emit fewer pollutants than diesel-powered trucks. The city also received funding to help install a time-fill refueling system for the trucks and a publicly accessible fast-fill refueling dispenser at the Kings Highway facility in Shreveport.

- The Lafayette Consolidated Government (LCG) is aggressively moving their fleet to CNG. In addition to five CNG transit buses already in operation, LCG received funding from the Program to convert 80 vehicles

to CNG and to help construct a publicly accessible CNG refueling station at their public works facility on University Avenue.

- The St. Landry Solid Waste Disposal District received funding to construct the first landfill gas CNG refueling facility in Louisiana. The facility makes use of landfill gas collected at their solid waste landfill, which otherwise would have been flared. The District also received funding to convert five of their vehicles and ten St. Landry Parish Sheriff's Office vehicles to CNG.

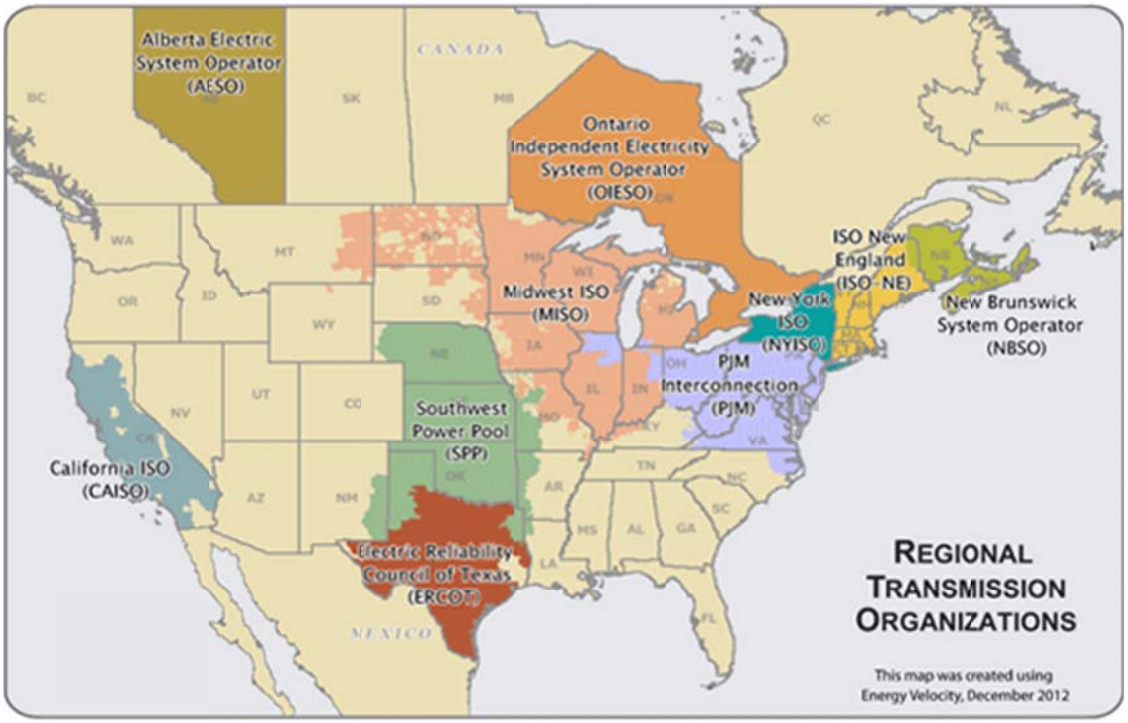
- DNR and the Department of Transportation and Development also utilized ARRA funds to purchase one CNG vehicle and convert five vehicles to operate on CNG. The vehicles will serve as test cases to assess the viability of CNG vehicles in the state fleet. Two of DNRs vehicles will serve in a marketing and educational role to promote the use of natural gas as vehicle fuel in Louisiana.

LOUISIANA UTILITIES JOIN REGIONAL TRANSMISSION ORGANIZATION

by

Patty Nussbaum

Figure 1. Regional Transmission Organizations



SOURCE: Federal Energy Regulatory Commission[1]

The Louisiana Public Service Commission conditionally approved Entergy Louisiana's and Entergy Gulf States Louisiana's application to join the Midwest Independent Transmission System Operator (MISO) Regional Transmission Organization (RTO) in May 2012. In December 2012, Entergy Louisiana, LLC, Entergy Gulf States Louisiana, LLC and Entergy New Orleans, Inc. submitted executed transmission owner agreements to MISO and plan to be fully integrated into MISO operations by December 2013. Joining MISO is projected to result in savings to Entergy customers as well as benefits for electric co-operatives and municipalities in the state.

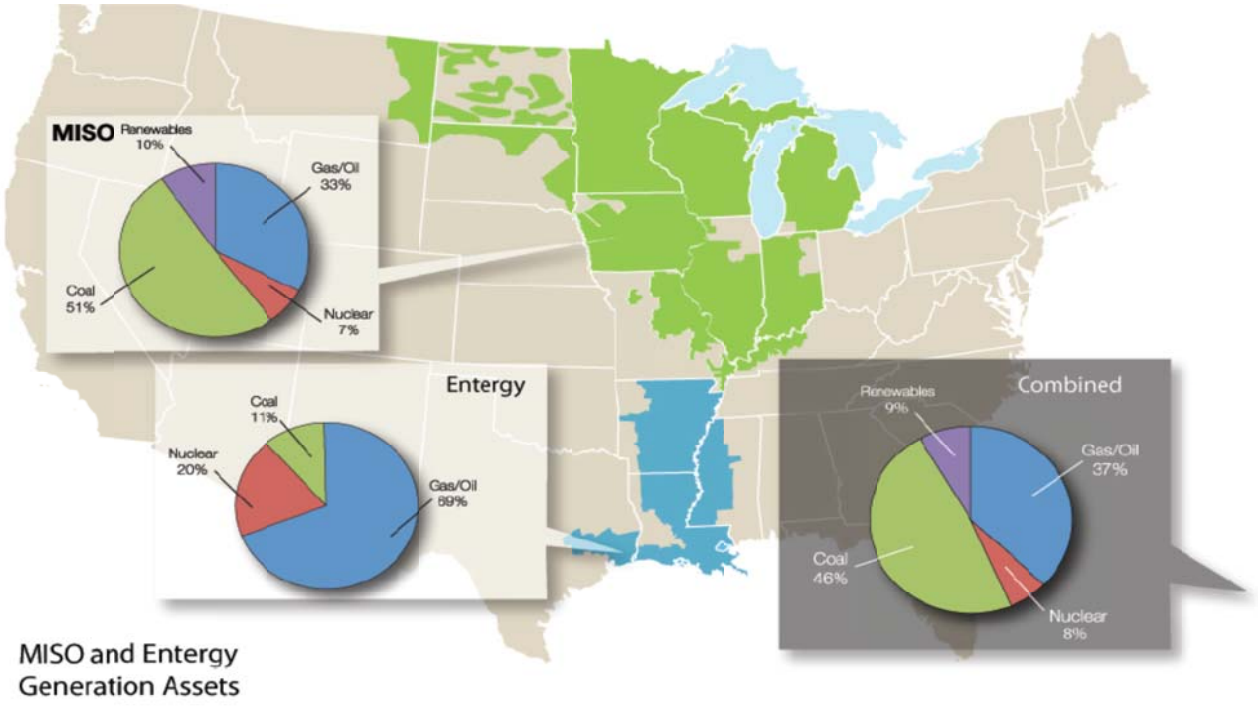
A regional approach means greater economies of scale to make the most efficient use of existing transmission and generation assets. Entergy brought 15,000 miles of transmission and 30,000 megawatts of generation capacity to the MISO footprint. MISO[2], a not-for-profit organization, is governed by an independent Board of Directors and was approved as a regional transmission

[1] Independent System Operators grew out of Orders Nos. 888/889 where the Commission suggested the concept of an Independent System Operator as one way for existing tight power pools to satisfy the requirement of providing non-discriminatory access to transmission. Subsequently, in Order No. 2000, the Commission encouraged the voluntary formation of Regional Transmission Organizations to administer the transmission grid on a regional basis throughout North America (including Canada). Order No. 2000 delineated twelve characteristics and functions that an entity must satisfy in order to become a Regional Transmission Organization (www.ferc.gov).

[2] For more information visit www.midwestiso.org.

organization in 2001. Once Entergy is added, the MISO footprint will include areas from Canada to the Gulf of Mexico.

Figure 2. MISO Market Footprint with Entergy



SOURCE: MISO

Entergy's utility operating companies are also spinning off their electric transmissions businesses and merging them with a subsidiary of ITC Holdings Corp (ITC)[3]. ITC is based in Michigan and invests in the electric transmission grid. ITC owns and operates high-voltage transmission facilities through its subsidiaries. ITC focuses on transmission and the Entergy operating companies will continue to focus on generation and distribution.

Cleco announced in December 2012 that it also intended to join MISO and plans to integrate into it by January 2014. Cleco has submitted an application to the LPSC to transfer functional control of transmission assets to MISO. Cleco owns 1,250 miles of transmission lines throughout Louisiana.

The Louisiana State Energy Office (SEO) disseminates information focused on energy-related economic development.

[3] For more information visit ITC's website at www.itc-holdings.com.

2013 STATE OIL AND GAS: PRODUCTION AND PRICE PROJECTIONS

by
Manuel Lam, Senior Analyst

Louisiana has produced oil and gas for more than a century. Oil and gas production are intimately linked with the economy of our state. Presently, Louisiana is the seventh largest producer of crude oil and the second largest producer of natural gas in the U.S., if the federal Outer Continental Shelf (OCS) production is excluded. Louisiana is also third in per capita energy consumption. More than 230,000 wells have been drilled searching for oil and gas in Louisiana since the first commercial oil well was drilled in 1901 in Jennings. The Louisiana OCS oil and gas production volumes are greater than in any other federally regulated offshore areas in the U.S.

Here are other interesting benchmarks in the Louisiana oil and gas production history. In 1910, the first freestanding above-water platform was used in Caddo Lake, near Shreveport. In 1938, the first well over water was completed in the Gulf of Mexico near Creole, offshore Cameron Parish. In 1947, the first offshore oil well was completed out of sight from land in Ship Shoal Block 32 (south of Morgan City, Saint Mary Parish). In 1951, the first concrete-coated pipeline was laid in the Gulf of Mexico. In 1954, the state started to produce more natural gas in terms of barrels of oil equivalents than crude oil. In 2006, Haynesville Shale gas started producing, making the gas domination in the state more predominant and, in 2010, oil production slowly started to reverse its declining trend due to production from oil shale formations and enhanced recovery in mature fields.

Production Projections

Table 1. Louisiana Historical and Projected Crude Oil Productions

	Date	Base Case (Barrels)	% Change	Low Case (Barrels)	High Case (Barrels)
Actual	FY2005/06	68,871,900	-17.57%	N/A	N/A
Actual	FY2006/07	76,896,150	11.65%	N/A	N/A
Actual	FY2007/08	77,057,382	0.21%	N/A	N/A
Actual	FY2008/09	68,790,278	-10.73%	N/A	N/A
Actual	FY2009/10	67,490,924	-1.89%	N/A	N/A
Actual	FY2010/11	68,929,452	2.13%	N/A	N/A
Actual	FY2011/12	73,565,493	6.73%	N/A	N/A
Projected	FY2012/13	74,993,393	1.94%	71,038,005	76,035,065
Projected	FY2013/14	75,099,784	0.14%	71,739,321	79,354,326
Projected	FY2014/15	74,575,483	-0.70%	70,701,138	79,796,412
Projected	FY2015/16	74,082,476	-0.66%	69,640,592	80,048,161
Projected	FY2016/17	73,617,923	-0.63%	68,615,830	79,768,222

The Louisiana state oil production, excluding federal OCS, showed an average decline of 2.8% per year over the past ten years, but actual year-to-year change varies widely, as shown in the above table. Hurricanes Katrina and Rita caused a 17.57% decline in oil production in FY2005/06; the recovery from the weather disaster and rising oil prices caused increases in production volumes in FY2006/07 and FY2007/08. Hurricanes Gustav and Ike caused a 9.83% decline in FY2008/09. A plunge in oil prices in

FY2009/10 delayed production recovery from weather disasters. The delayed recovery and new production from enhanced oil recovery in old oil fields caused production to increase in FY2010/11. Continuous production from enhanced oil recovery fields, new production from oil shale formations, and relatively high oil prices caused production to increase in FY2011/12. The Department of Natural Resources (DNR) Technology Assessment Division short-term model is projecting a stable oil production over the next five years, if crude oil prices stay around $90 per barrel and no major weather disruptions occur. The above table lists the projections for the next five years. If prices go over $100 for an extended period, the projections will be closer to the high case, and if the Tuscaloosa Marine shale or the Brown Dense shale productions take off, the above oil production projections will be too conservative.

Table 2. Louisiana Historical and Projected Natural Gas Productions

	Date	Base Case (MCF)	% Change	Low Case (MCF)	High Case (MCF)
Actual	FY2005/06	1,282,110,642	-5.40%	N/A	N/A
Actual	FY2006/07	1,353,183,804	5.54%	N/A	N/A
Actual	FY2007/08	1,373,047,374	1.47%	N/A	N/A
Actual	FY2008/09	1,380,586,101	0.55%	N/A	N/A
Actual	FY2009/10	1,794,557,505	29.99%	N/A	N/A
Actual	FY2010/11	2,598,251,017	44.79%	N/A	N/A
Actual	FY2011/12	3,078,712,748	18.49%	N/A	N/A
Projected	FY2012/13	3,171,378,911	3.01%	2,961,270,725	3,282,416,102
Projected	FY2013/14	3,148,742,912	-0.71%	2,924,117,809	3,408,550,556
Projected	FY2014/15	3,121,124,388	-0.88%	2,886,290,489	3,388,121,452
Projected	FY2015/16	3,094,334,771	-0.86%	2,850,725,629	3,369,916,936
Projected	FY2016/17	3,067,947,745	-0.85%	2,815,676,386	3,351,916,282

Louisiana state gas production, excluding federal OCS, from FY2001/02 thru FY2006/07 declined an average of 1.55% per year. Similar to oil, gas production varies from year-to-year, reflecting the severity of weather patterns. In FY2006/07, the Haynesville Shale dry gas field came into the picture and changed the pattern. For example, the high decline in oil production in FY2008/09 was due to Hurricanes Gustav and Ike, while gas production showed a slight increase. If there had been no hurricanes that year, the percentage of increase in production would have been higher. From FY2008/09 through FY2011/12, Louisiana state gas production has shown percent increases in the double digits. The DNR Technology Assessment Division short-term model projections for the next five years are shown in the above table. The projections assume that no major weather disruptions occur and average gas prices are above $3 per MCF. The 2012 gas prices dropping below $3 per MCF have caused a slowdown in drilling activities in the Haynesville Shale areas. In January 2012, there were 93 active rigs in Haynesville areas, and in January 2013, there were 16 active rigs, an 82.8% decline. The drop in drilling activities, cutback in production due to low prices, and overstock of gas in storage will curtail the gas production growth in Louisiana.

Factors that contribute to the year-to-year deviations in oil and gas production are:

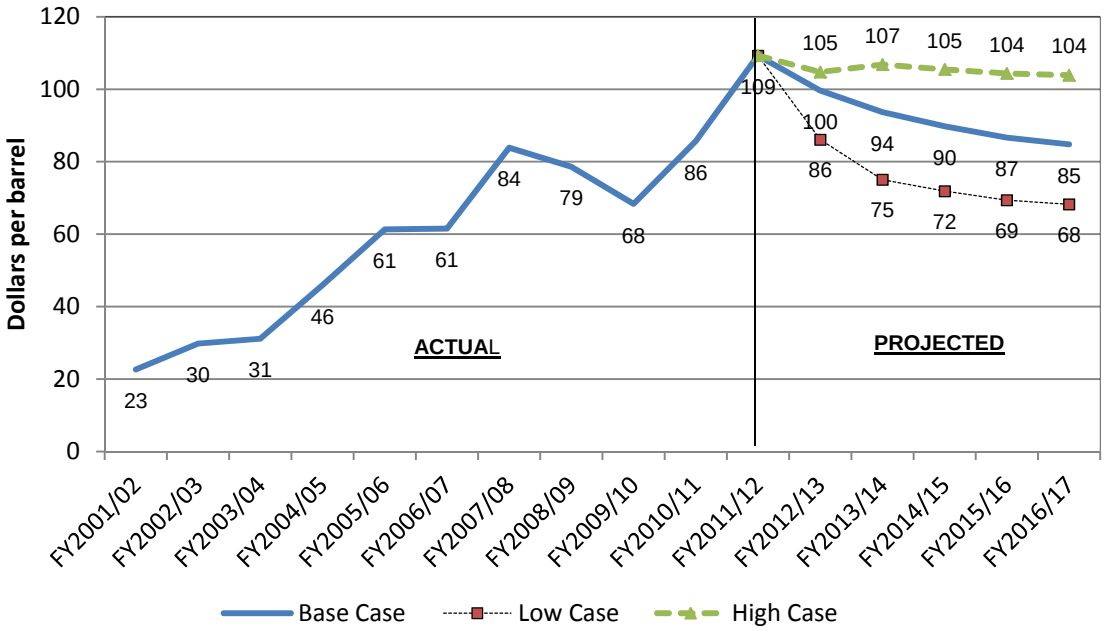
- Changes in wildcat drilling and development of marginal fields within the state,
- adding new producing areas,
- unstable crude oil and natural gas prices,

- changes in environmental laws, especially those concerning salt water discharge and the Clean Air Act Amendments of 1990,
- world supply and demand causing a glut or shortage, depending on its growth rate,
- the number of active drilling rigs in the region,
- application of advanced technology, such as 3-D, 4D, or carbon dioxide injection,
- state and local tax incentives,
- weather patterns,
- foreign imports or exports.

Price Projections

Oil prices are determined in the international markets and are difficult to project. Just as the historical data shows great swings in the price of oil, there is also considerable uncertainty about future prices. The future price of oil is linked to the unpredictability of world oil supplies and world economics. Major factors affecting oil prices are a) political stability of producing countries, b) world environmental issues, c) industrialized countries' conservation practices, d) weather related demand for petroleum products, e) production restrictions by OPEC countries, f) economic changes in consumer nations, g) stability in the labor force, and h) new producing fields. If crude oil supply and demand for petroleum products are well balanced and refiners have sufficient downstream capacity to process difficult crudes, the price of crude oil will seek a stable market condition.

Figure 1. Louisiana Crude Oil Historical and Projected Prices

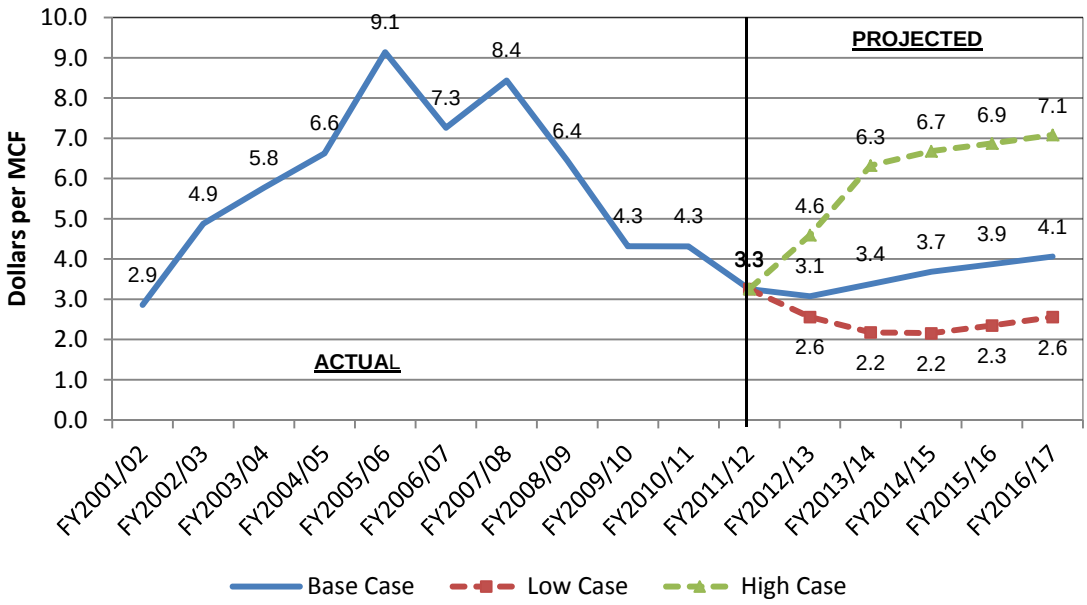


Louisiana crude oil price is over $100 per barrel in the spot market at the present. It is expected to drop when crude transportation issues from Cushing, OK to the Gulf Coast refineries are solved, more production from shale formations enter the market, production increases from old fields using enhanced techniques, and the economy keeps its slow recovery pace.

The most used relationship between crude oil price and natural gas price is the so-called "6-to-1" rule, where the price of one barrel of crude oil should be approximately six times the price of natural gas per million BTUs (MMBTUs). The reason is that the BTU content of a barrel of oil is around six times the quantity of a million BTUs of natural gas. Natural gas prices recently started to diverge from this relationship, with the current ratio being 58:1. Oil prices have risen rapidly while gas prices are falling, because Asian countries are consuming more oil than gas as they recover from recent recession and the earthquake in Japan, and the political unrest in African and Islamic countries are disrupting oil supply more heavily than gas supply. Gas has less mobility than oil in international trade because it requires special vessels and infrastructure (pipelines, compression stations, LNG terminals, etc.). Gas prices are cyclical, regional, controlled by supply and demand, and lack infrastructure for international trade. They are driven by factors such as weather, demand for gas not satisfied by pipeline systems, availability of spot supplies, and competing fuel prices. Others factors that could affect prices are storage levels, curtailments, market changes, new consumption, and NAFTA (North American Free Trade Agreement). Gas prices are also affected by psychological factors. Often the expectation of soft prices is enough to bring them about and a good dose of cold winter weather will usually erase much of the psychological element of low gas prices, and prices will move higher.

The lack of mobility of natural gas between producing areas and consuming areas caused by insufficient infrastructure is best shown by the Federal Energy Regulatory Commission's March 2013 world LNG estimated landed prices. Gas prices are $19.75 per MMBTU in Japan, $17.75 per MMBTU in Korea, $15.70 per MMBTU in India, $9.86 per MMBTU in Belgium, $15.25 per MMBTU in Spain, $16.84 per MMBTU in Brazil, and $3.01 per MMBTU in the U.S. (Lake Charles). The low price in the U.S. is caused by the over supply of gas from shale plays.

Figure 2. Louisiana Natural Gas Historical and Projected Prices



Louisiana gas prices are expected to be around $3 per MMBTU in the near future, and to increase to $4 or more per MMBTU when demand increases from newly built plants in the state and LNG export terminals became operational.

RESULTS OF THE EMPOWER LOUISIANA RENEWABLE ENERGY GRANT PROGRAM

by
Bryan Crouch, P.E.

The EmPower Louisiana Renewable Energy Grant Program (the Program) is now finished and all projects that received funding through the Program are complete. The Program was established by the Louisiana Department of Natural Resources (DNR) for the purpose of implementing cost-effective renewable energy technologies in Louisiana to offset the use of fossil fuels, to support the creation of employment opportunities, and to stimulate the further investment in renewable energy technologies. The Program was funded through the U.S. Department of Energy with dollars allocated from the American Recovery and Reinvestment Act (ARRA) of 2009.

Six grants, totaling $9.8 million, were awarded from the Program and grant recipients contributed an additional $31.7 million. The funding was used to purchase and install equipment for renewable energy generation projects, including solar PV, solar thermal, biomass, and biomass gasification.

An estimated 21.5 million kWh of renewable energy will be generated annually as a result of these projects; enough to power 1,300 homes in Louisiana.

The projects receiving funds from the Program were:

- The University of Louisiana at Lafayette received funding to construct Louisiana's first solar thermal power plant. The pilot-scale 20 kW project harnesses the sun's energy to heat water, which drives an organic rankine cycle that spins an electric generator. The process produces zero emissions.

- Agrilectric Power has operated a unique rice-hull fueled biomass power plant in Lake Charles, Louisiana since 1984. The facility produces reliable, renewable electrical power for Louisiana businesses and residential customers. Agrielectric received funding for upgrades to their plant that will result in an increase of the current turbine/generator capacity rating from 10.62MW to 12MW without a complete teardown and re-build of the facility. The modifications include a new boiler, replacement of several key plant components to increase efficiency, piping and routing improvements, new baghouse modules and enhancements to the turbine/generator unit to maximize electrical power production.

- HRI Solar Solutions installed 1 megawatt of solar photovoltaic panels on rooftops and parking structures of multiple apartment buildings in New Orleans, Houma, and Shreveport. One particular site, the American Can Apartments in New Orleans, utilized an innovative mounting system for flat roofs that does not require roof penetrations and still meets the required wind load specifications.

- The Community Church Unitarian Universalist was flooded with nine feet of water during Hurricane Katrina and was rebuilt using many energy-saving features. Community Church received funding to purchase and install a solar PV system on the roof of their new sanctuary. The PV system will provide nearly all of the power consumed by the building.

- Lamar Advertising of Louisiana received funding to install 700 kW of solar PV panels on billboard structures throughout the state. In addition, the project also made use of efficient LED lighting and digital on-line controls to reduce the electricity consumption of the billboards. The highly visible project is being supported by a statewide billboard advertising campaign that is intended to increase public awareness of renewable energy and energy efficiency.

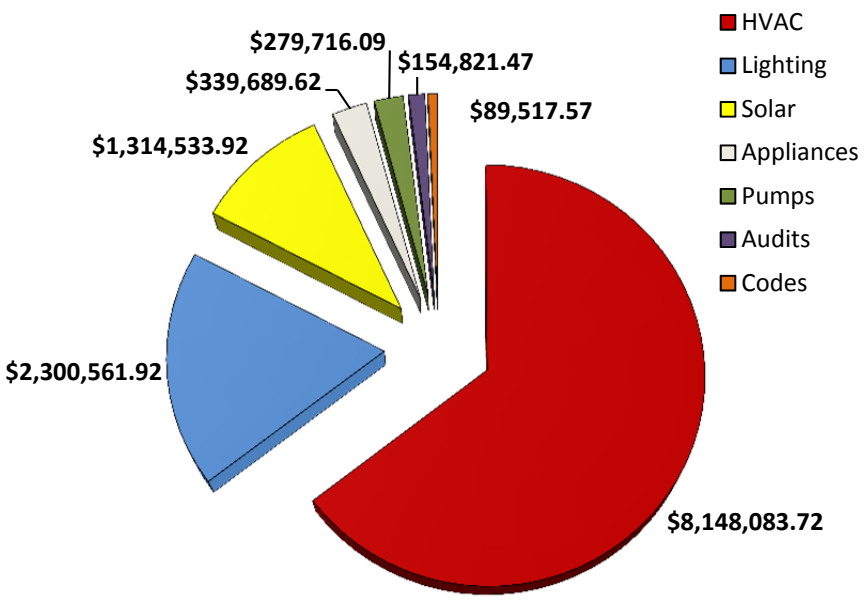
- Cleco Power LLC received funding to construct a 3-ton per day biomass fed gasifier that will generate an estimated 30 kW of electricity while also having the potential to slip-stream syngas for production of chemicals such as biofuels. This project is a key step of a multi-phase project that Cleco is initiating with eventual plans to construct and operate several distributed power generating systems across Louisiana.

RESULTS OF THE EMPOWER LOUISIANA ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANT PROGRAM

by
Billy Williamson, P.E., C.E.M

The Empower Louisiana Energy Efficiency and Conservation Block Grant (EECBG) Program is now completed. The Louisiana Department of Natural Resources (DNR) developed the EECBG program to provide funding for energy efficiency and renewable energy projects for municipalities and parishes. In total, DNR utilized $13,773,530.24 in EECBG funding, including $12,626,924.31 reimbursed to eligible parishes. This funding was authorized as part of the American Recovery and Reinvestment Act of 2009. Projects receiving this funding resulted in energy savings of 24,964 Million Btu per year and renewable energy generation of 638 Million Btu per year.

Figure 1. Spending By Project Type



Parishes identified eligible projects and upon receiving project approval from DNR began the necessary contract negotiations. Completed projects fell into 7 major categories: Codes, Audits, Pumps, Appliances, Solar, Lighting, and HVAC. The breakdown of spending by project type is shown in Figure 1.

Codes projects involved the education of staff and purchase of equipment for building energy code enforcement. *Audits* refer to commercial building energy audits performed on government-owned facilities to identify inefficiencies and develop energy reduction strategies. These audits can be used to develop energy management plans for government campuses. *Codes* and *Audits* are both non-construction type projects that do not result in direct energy savings, but prepare local authorities for further, more comprehensive reductions in the future. However, these secondary energy savings are difficult to quantify and are not claimed as program savings by DNR.

Pumps and motors were replaced in several parishes. These projects were often the most cost effective option due to the inefficiencies and large capacities of existing pumps along with the newer equipment resulting in reduced maintenance costs. Many old pumps and motors are not able to reduce output when demand is decreased. As such, the motors runs at full power constantly and other controls are used to manage pressures and flows. Many pump projects involved the use of new motors along with variable frequency drives, or VFDs, which allow the pumps to be run at lower speeds and significantly reduced power inputs.

Appliances including refrigerators, freezers, ice makers, water fountains, clothes washers, and dishwashers were replaced with more efficient, Energy Star-qualified units in many parishes. These purchases were often simplified by a lack of Buy American requirements and the existence of state purchasing contracts. Many parishes used residual funding left over after completion of larger projects to replace appliances. This allowed the parishes to maximize the use of their funding allocation.

Solar energy systems provided all reported renewable energy generation. These projects fell into 3 different types. Solar photovoltaic (PV) systems (Figure 2) were installed in several parishes. These systems provide electricity directly to a public facility. The second common type of solar installation is solar lighting, which can provide lighting independent of the power grid. Finally, St. Helena parish installed a solar thermal system provide hot water necessary for the parish jail. This system was installed in conjunction with a solar PV system installed at the same facility.

Figure 2. Solar Photovoltaic System on Webster Parish Police Jury Annex

Lighting projects were popular statewide. Due to constantly improving technologies, lighting projects often offered large energy savings. However, energy savings were just the beginning. In many offices visited by DNR representatives, employees noted significant improvements in lighting level and quality around workspaces. These changes should improve workplace efficiency and reduce fatigue in employees.

The majority of funds were spent on heating, ventilation, and air conditioning (*HVAC*) projects. HVAC systems typically account for around a third of a commercial building's total energy consumption. Due to Louisiana's hot-humid climate, this is often exaggerated in the hot summer months. As such, HVAC system efficiency is vital to a building's overall efficiency. Due to the varied nature of the building stock, system replacements ranged from replacement of typical residential type systems to replacement of chillers and system redesigns. The Town of French Settlement used their EECBG allocation to install a closed-loop geothermal heat pump at their Town Hall. This heat pump allowed the town to provide air conditioning to the Town Hall in the aftermath of Hurricane Isaac.

After completing large projects, some parishes had grant funding remaining while others had exceeded their original award amounts. DNR de-obligated the residual funds from parishes that underspent and made them available to those who had used parish or local funds to complete large projects whose costs were not covered completely by the grant. Thanks to these efforts, DNR ensured that $13,773,530.24 (99.8%) of the $13,805,700 grant was utilized.

Overall, DNR is pleased with the results of the Empower Louisiana Energy Efficiency and Conservation Block Grant Program. Through the combined efficiency improvements and renewable energy production, the program was able to reduce electrical utility loads in the state by 25,600 Million Btu and associated greenhouse gas emissions by an equivalent of 4,000 million tons of CO_2. The associated cost savings will provide agencies with lower, more stable utility costs and greater budget flexibility in the future.

LOUISIANA PUBLIC SERVICE COMMISSION – RECENT ISSUES CONCERNING ELECTRIC UTILITIES

by

Patty Nussbaum

1. District 1 - Commissioner Eric Skrmetta
2. District 2 - Commissioner Scott A. Angelle
3. District 3 - Commissioner Lambert C. Boissiere, III
4. District 4 - Commissioner Clyde C. Holloway
5. District 5 - Commissioner Foster L. Campbell

SOURCE: The Louisiana Public Service Commission

The Louisiana Public Service Commission (LPSC) is the regulatory agency that oversees public utilities and motor carriers in the state. The LPSC consists of five elected Commissioners and a staff. The goal of the Commission is balanced regulation. That is, a regulatory environment where safe, reliable service is provided to customers at reasonable rates while allowing utilities to earn a fair rate of return.

Public meetings are usually held on the 3rd Wednesday of every month in the Natchez Room of the Galvez Building. The schedule is available on the website. The agenda is published on the website prior to the meeting, and subsequently, the minutes are also available on the website. Court reporters record and prepare transcripts for all hearings and Commission and Executive Sessions. The document access feature on the LPSC website allows dockets to be accessed as well.[1]

Recent LPSC issues concerning electric utilities:

1. Net Metering (Docket R-31417) – allows customers to produce on site electricity, usually by

[1] The LPSC website can be found at http://www.lpsc.org.

installing photovoltaic panels (PV) and sell excess generation to the utility at a set rate, resulting in a credit on the monthly bill. The Commission implemented net metering rules in 2005 and is revisiting those rules as a result of increased subsidies associated with installation, purchased power, and distribution cost recovery, as well as concerns over third-party ownership and meter aggregation.

2. Financial incentives for the promotion of energy efficiency by electric utilities (Docket R-31106) – incentives to people to make their homes more energy-efficient. When a program is to be paid for by passing the costs along to all of the utility's customers, the commission is obligated to determine whether the program benefits of using electricity more efficiently, by eliminating waste or loss for example, balance out those costs. Even a program with merit should not place an undue burden on the utility or their rate payers. Continued discussion for possible development of these incentives was passed to the June Business and Executive Session.

3. Regional Transmission Organizations (Dockets U-32675, U-32628, U-32631, U-32300) – RTOs are independent, membership-based, non-profit organizations that operate bulk electric power systems across North America. Entergy Louisiana, Entergy Gulf States Louisiana, and Cleco Power are joining the MISO RTO.[2] The LPSC is involved in handling the transition to the MISO. The Commission voted to elect Chairman Eric Skrmetta to be the LPSC Organization of MISO States Representative for 2013.

4. Renewable Energy Pilot Program (R-28271 Subdocket B) – Re-study of the feasibility of a renewable portfolio standard for the State of Louisiana. Currently, there is a pilot program intended to determine what renewable resources found in Louisiana can be used to meet a federal or state RPS while protecting Louisiana ratepayers from a significant rate increase. The pilot has two major components: 1) a research component, and 2) an RFP Component for larger new renewable resources. All jurisdictional electric utilities will participate in the RFP. Only investor owned utilities will participate in the research component. The LPSC staff report on the Renewable Energy Pilot is planned for the July 2013 B & E Meeting.

The Louisiana State Energy Office (SEO) disseminates information focused on energy-related economic development.

[2] Each of Entergy's six utility operating subsidiaries, which do business in Arkansas, Louisiana, Mississippi, New Orleans, and Texas, has filed for approval to join MISO with its regulatory body.

LOUISIANA, AN ENERGY CONSUMING STATE: AN UPDATE USING 2011 DATA

by
Bryan Crouch, P.E.

Louisiana ranks high among the states in overall energy consumption. Louisiana remained 4th in total energy consumption in 2011 after jumping from 8th the previous year. Louisiana also remained 3rd in per capita energy consumption for 2011. The main reason for Louisiana's high energy consumption is the extremely energy intensive petrochemical and petroleum refining industry that is located in the state. The abundance of Louisiana's natural resources has historically meant low energy prices, which have attracted a large cluster of energy intensive industries to the state. Figures 1 & 2 below show Louisiana energy consumption by sector and source. The large amount of energy consumed by the petrochemical and petroleum refining industry is reflected in the high percentage for the industrial sector and the high percentages for natural gas and petroleum.

Figure 1. Louisiana Energy Consumption Percentage by Sector - 2011

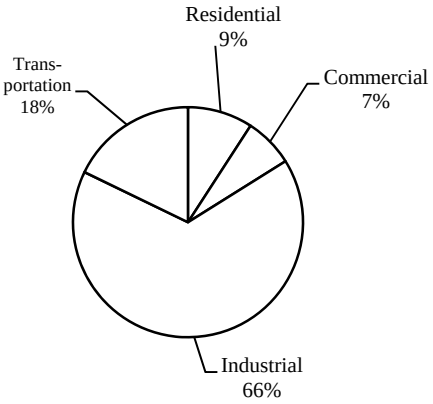


Figure 2. Louisiana Energy Consumption Perecentage by Source - 2011

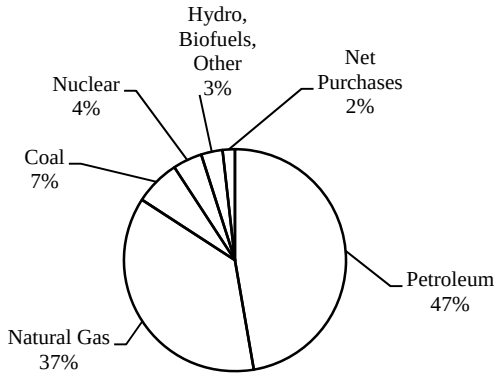


Table 1 shows where Louisiana ranks among the states in various energy consumption categories and lists the top energy consuming state for each category.

Louisiana is also a large producer of energy, mainly in the form of crude oil and natural gas. Table 2 on the following page presents the Louisiana energy balance for 2011. The energy balance is calculated both inclusive and exclusive of Louisiana's OCS oil and gas production.

Table 1. Louisiana Energy Consumption Rankings Among the States - 2011

Category	Rank	TBTU	#1 State (TBTU)
Residential	24	371.5	Texas (1,745.5)
Commercial	22	281.4	California (1,556.1)
Industrial	2	2,679.7	Texas (6,087.6)
Transportation	10	722.7	California (3,000.5)
Coal	30	270.0	Texas (1,695.2)
Natural Gas	3	1,502.9	Texas (3,756.9)
Petroleum	3	1,925.7	Texas (5,934.3)
Electricity	17	294.7	Texas (1,283.1)
Total	4	4,055.3	Texas (12,206.6)
Per Capita (MBTU)	2	886.5	Wyoming (974.7)

Table 2. Louisiana Energy Balance - 2011 [1]

ENERGY SOURCE		PRODUCTION	CONSUMPTION	NET STATE ENERGY PRODUCTION Excluding OCS	NET STATE ENERGY PRODUCTION Including OCS
PETROLEUM:	STATE OIL[2]	409.3 TBTU[4] (70.6 MMBBL)	1,908.3 TBTU (359.1 MMBBL)	-1,499.0 TBTU	1,022.3 TBTU
	LOUISIANA OCS OIL[2]	2,521.3 TBTU[4] (434.7 MMBBL)			
NATURAL GAS:	STATE GAS [3]	3,037.4 TBTU[4] (2.981 TCF)	1,502.5 TBTU (1.475 TCF)	1,534.9 TBTU	2,888.0 TBTU
	LOUISIANA OCS GAS [3]	1,353.1 TBTU[4] (1.328 TCF)			
COAL:	LIGNITE	53.0 TBTU (3.865 MMSTON)	270.0 TBTU (16.8 MMSTON)	-217.0 TBTU	-217.0 TBTU
NUCLEAR ELECTRIC POWER		173.9 TBTU (16.6 Billion kWH)	173.9 TBTU (16.6 Billion kWH)	0.0 TBTU	0.0 TBTU
HYDROELECTRIC, BIOFUELS & OTHER		127.1 TBTU	127.1 TBTU	0.0 TBTU	0.0 TBTU
NET INTERSTATE PURCHASES OF ELECTRICITY INCLUDING ASSOCIATED LOSSES			73.6 TBTU	-73.6 TBTU	-73.6 TBTU
TOTALS:	EXCLUDING LOUISIANA OCS	3,800.7 TBTU	4,055.4 TBTU	-254.7 TBTU	
	INCLUDING LOUISIANA OCS	7,675.1 TBTU	4,055.4 TBTU		3,619.7 TBTU

The Louisiana energy balance for 2011 shows that the state consumed 254.7 more TBTUs of energy than it produced if Louisiana OCS production is not included. If Louisiana OCS production is included, the state is a net producer of energy by 3,619.7 TBTUs.

TCF = Trillion Cubic Feet
TBTU = Trillion BTU's
MMBBL = Million Barrels
OCS = Outer Continental Shelf (federal waters seaward of the state's 3-mile offshore boundary)
kWH = Kilowatt hour
MMSTON = Million Short Tons

1. Unless otherwise noted, data is obtained from the Energy Information Administration's latest published figures for state energy consumption.
2. Includes condensate
3. Includes gas plant liquids
4. Louisiana Department of Natural Resources data

SELECTED LOUISIANA ENERGY STATISTICS

Among the 50 states, Louisiana's rankings (in 2012, unless otherwise indicated) were:

PRIMARY ENERGY PRODUCTION
(Including Louisiana OCS*)

- 2nd in crude oil
- 1st in OCS crude oil
- 1st in OCS natural gas
- 1st in OCS revenue generated for federal government
- 1st in mineral revenues from any source to the federal government
- 1st in LNG terminal capacity
- 2nd in natural gas
- 2nd in crude oil proved reserves
- 2nd in dry natural gas proved reserves
- 3rd in total energy from all sources

REFINING AND PETROCHEMICALS

- 2nd in primary petrochemical production
- 2nd in natural gas processing capacity
- 2nd in petroleum refining capacity

PRIMARY ENERGY PRODUCTION
(Excluding Louisiana OCS)

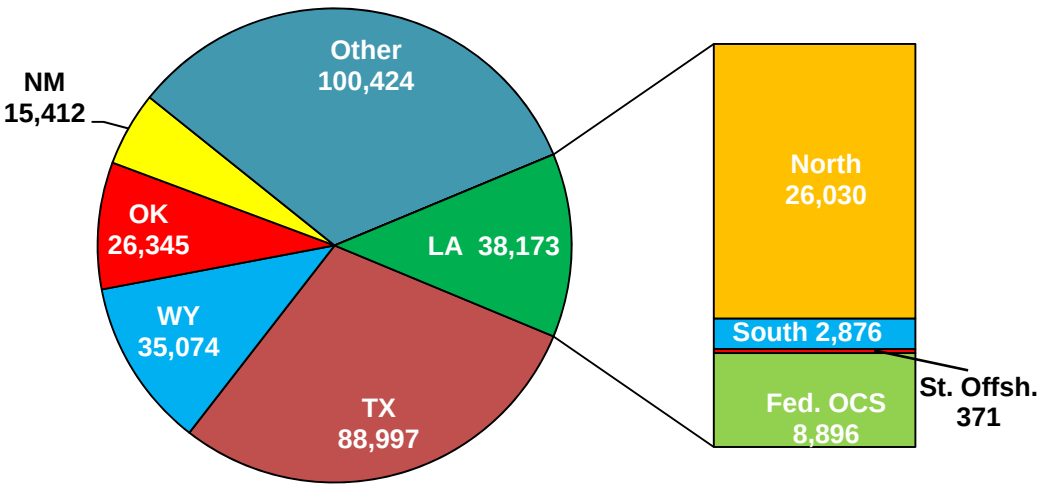
- 7th in crude oil
- 2nd in natural gas
- 3rd in dry natural gas proved reserves
- 10th in crude oil proved reserves
- 18th in coal
- 16th in nuclear electricity

ENERGY CONSUMPTION (2011)

- 2nd in industrial energy
- 2nd in per capita energy
- 3rd in natural gas
- 3rd in petroleum
- 4th in total energy
- 24th in residential energy

Figure 1

2012 U.S. Natural Gas Reserves
(Billion Cubic Feet)

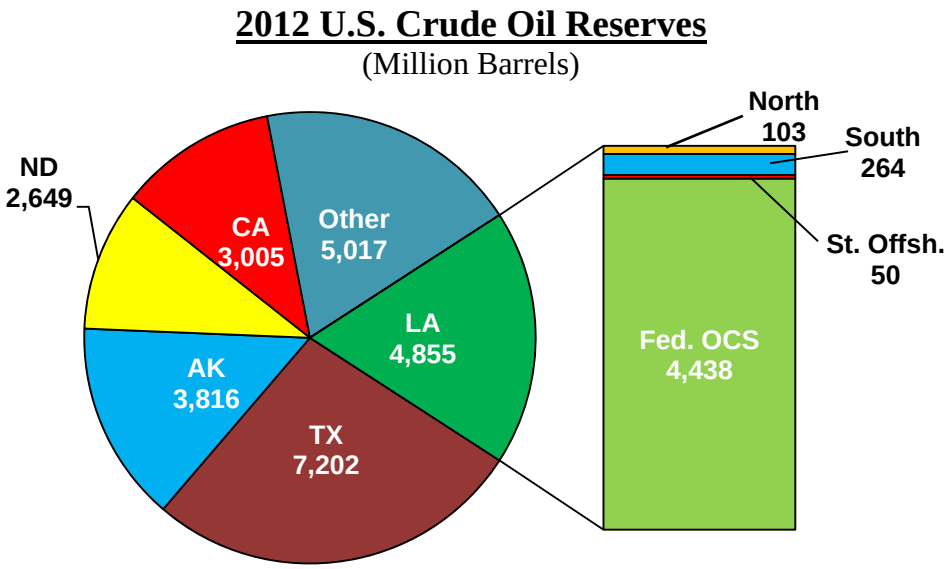


PRODUCTION

State controlled natural gas and casinghead gas production peaked at 5.6 trillion cubic feet (TCF) per year in 1970 and declined to 1.28 TCF in 2005. The trend started to reverse in 2006 when production increased to 1.35 TCF. The rising trend continued until 2011 when it peaked at 2.98 TCF, the production surge was due to production in the Haynesville shale play. Prior to the Haynesville discovery, the long-term decline rate was around 3.2% per year. With the start of production in Haynesville in 2007, the state production has shown an increase of 0.3% in 2008 over the previous year, 12.4% in 2009, 42.3% in 2010, and 37.1% in 2011. Then in 2012, production fell to 2.96 TCF or a 0.6% drop from the previous year, and it is expected to continue to drop as prices continue to be below $4 per MCF and the stock of U.S. gas in storage remains high.

State controlled crude oil and condensate production peaked at 566 million barrels (mmbls) per year in 1970, declined to 211 mmbls in 1980, declined to 148 mmbls in 1990, declined to 107 mmbls in 2000, and declined to 68 mmbls in 2010. Then in 2011, oil production reversed its trend; 2011 production was 72 mmbls, and in 2012, it increased to 78 mmbls. The recent oil production increase comes mostly from mature fields using new recovery techniques and high crude oil prices. If oil prices stay above $100 per barrel, production will be sustained at the present level, but if the Tuscaloosa Marine Shale or the Brown dense shale productions take off, state oil production will continue to surge.

Figure 2



Louisiana OCS (federal) territory is the most extensively developed and mature OCS territory in the U.S. It has produced approximately 86.9% of the 19.5 billion barrels of crude oil and condensate and 80.3% of the 176 TCF of natural gas extracted from all federal OCS territories, from the beginning of time through the end of 2012. In 2012, Louisiana OCS territory produced 17% of the oil and 4.6% of the natural gas produced in the entire U.S., and 84.4% of the oil and 78.7% of the natural gas produced in the Gulf of Mexico OCS.

Louisiana OCS gas production peaked at 4.07 TCF per year in 1979, declined to 2.95 TCF in 1989, recovered to 3.84 TCF in 1999, fell to 2.02 TCF in 2007, fell to 1.65 TCF in 2008, rose to 1.73 TCF in 2009, fell to 1.63 TCF in 2010, fell to 1.32 TCF in 2011, and fell to 1.11 TCF in 2012.

Louisiana OCS crude oil and condensate production first peaked at 388 mmbls per year in 1972, and then declined to 246 mmbls in 1989. The production rose from 264 mmbls in 1990 to 508 mmbls in 2002, due to the development of deep water drilling. In 2007, production dropped to 427 mmbls, in 2008 it dropped to 385 mmbls, in 2009 production increased to 528 million barrels, in 2010 it fell to 520 mmbls, in 2011 it fell to 435 mmbls, and it fell to 407 mmbls in 2012. The roller coaster ride in oil production can be attributed to weather events and production mishaps.

REVENUE

In Fiscal Year (FY) 2007/08, oil and gas revenue (severance tax, royalties, and bonuses) reached an all time high of $1.94 billion, or 16% of state income (total state taxes, licenses, and fees); the previous peak occurred in FY 1981/82 at $1.62 billion, but it was 41% of state income. In FY 2008/09, oil and gas revenue was $1.54 billion or 14% of state income. In FY 2010/11, it was $1.31 billion or 14% of state income, in FY 2011/12 it was $1.40 or 14% of state income; and in FY 2011/13, it was around $1.32 billion or 13% of the state income.

At constant production, the state treasury gains or loses about $10 million of direct revenue from oil severance taxes and royalty payments for every $1 per barrel change in oil prices.

For every $1 per MCF change in gas price, at constant production, the state treasury gains or loses around $40 million in royalty payments. Increases or decreases in gas full rate severance tax by 1.0 cent per MCF would have caused an $8 million dollar change in revenue in the past. Today, however, it is hard to estimate due to the advent of large production volumes from Haynesville shale, which are mostly exempted from severance taxes and fast dismissing production in other areas of the state.

There are no studies available on indirect revenue to the state from changes in gas and oil prices.

DRILLING ACTIVITY

Drilling permits issued on state controlled territory peaked at 7,631 permits in 1984 and declined to a low of 1,017 permits in 1999. Since 2000, the annual number of drilling permits issued has been on a roller coaster ride. In 2007, permits increased to 2,150, in 2008 they increased to 2,374 permits, in 2009 permits decreased to 1365, in 2010 they increased to 1,956 permits, in 2011 they decreased to 1,676 permits, and in 2012 there was a decrease to 1,581 permits.

The average active rotary rig count for Louisiana, excluding OCS, reached a high of 386 active rigs in

- Note: Louisiana OCS or Outer Continental Shelf is federal offshore territory adjacent to Louisiana's coast beyond the three mile limit of the state's offshore boundary.

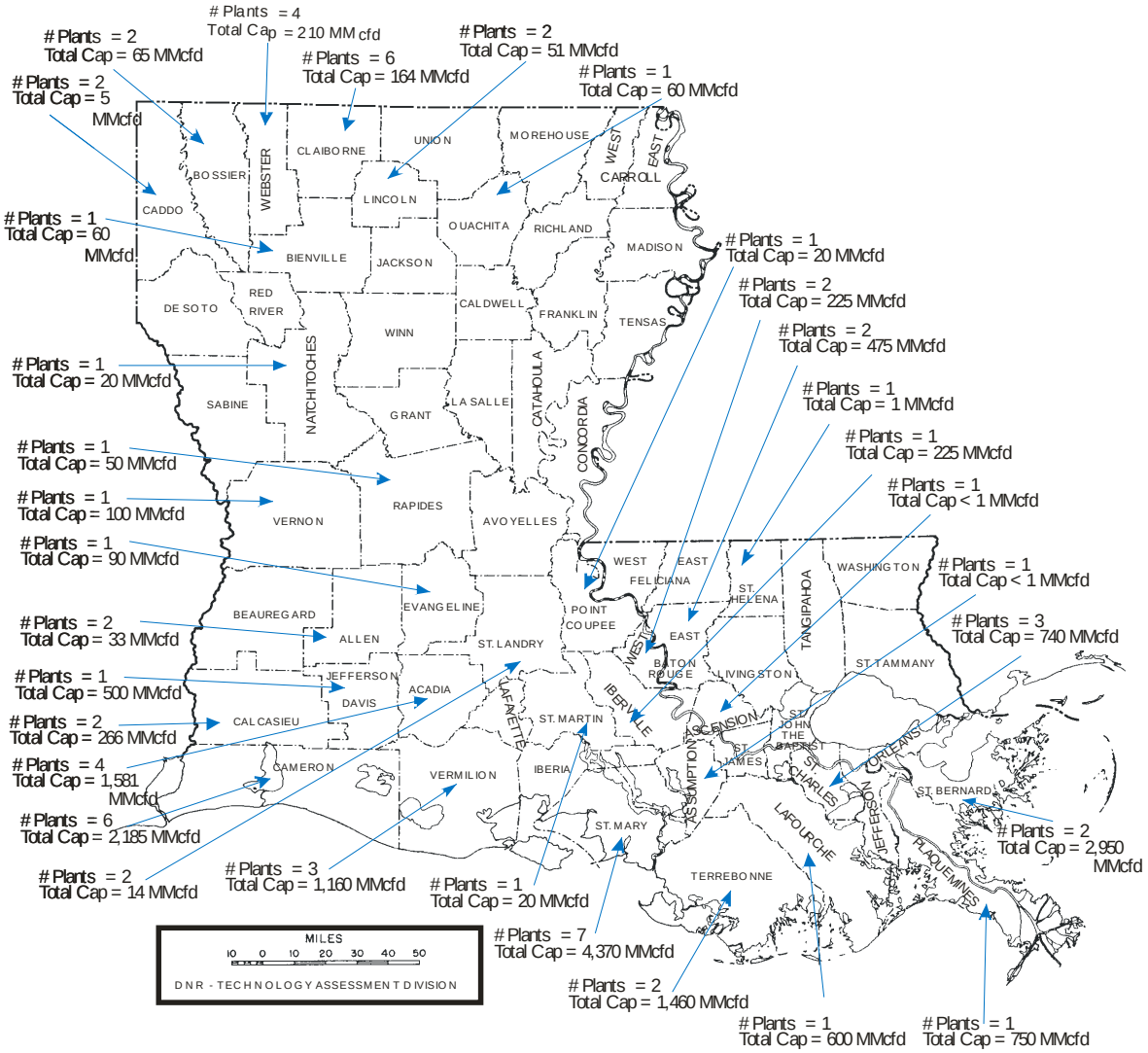
- 1981 and fell to 76 active rigs in 2002. In 2007, there were an average of 119 active rigs, the count fell to 117 rigs in 2008 and it fell again in 2009 to 113 rigs; in 2010, the count increased to 138 active rigs due to low gas prices, and in 2012, it decreased to 81 active rigs due to continued low gas prices. The lowest year average between 1981 and 2010 was 64 active rigs in 1993.

The annual average active rotary rig count for Louisiana OCS reached a high of 109 rigs in 2001 and it is in a downward trend; it was 70 in 2006, 59 in 2007, 50 in 2008, 36 in 2009, and 26 in 2010. In 2011, the trend reversed and increased 27 rigs, and in 2012, it increased to 42 rigs. The lowest year average between 1981 and 2010 was 23 active rigs in 1992.

Figure 3

Louisiana Gas Plants and Total Capacity by Parish

As of January 1, 2013



State total: 67 plants, 18,450.3 MMcfg

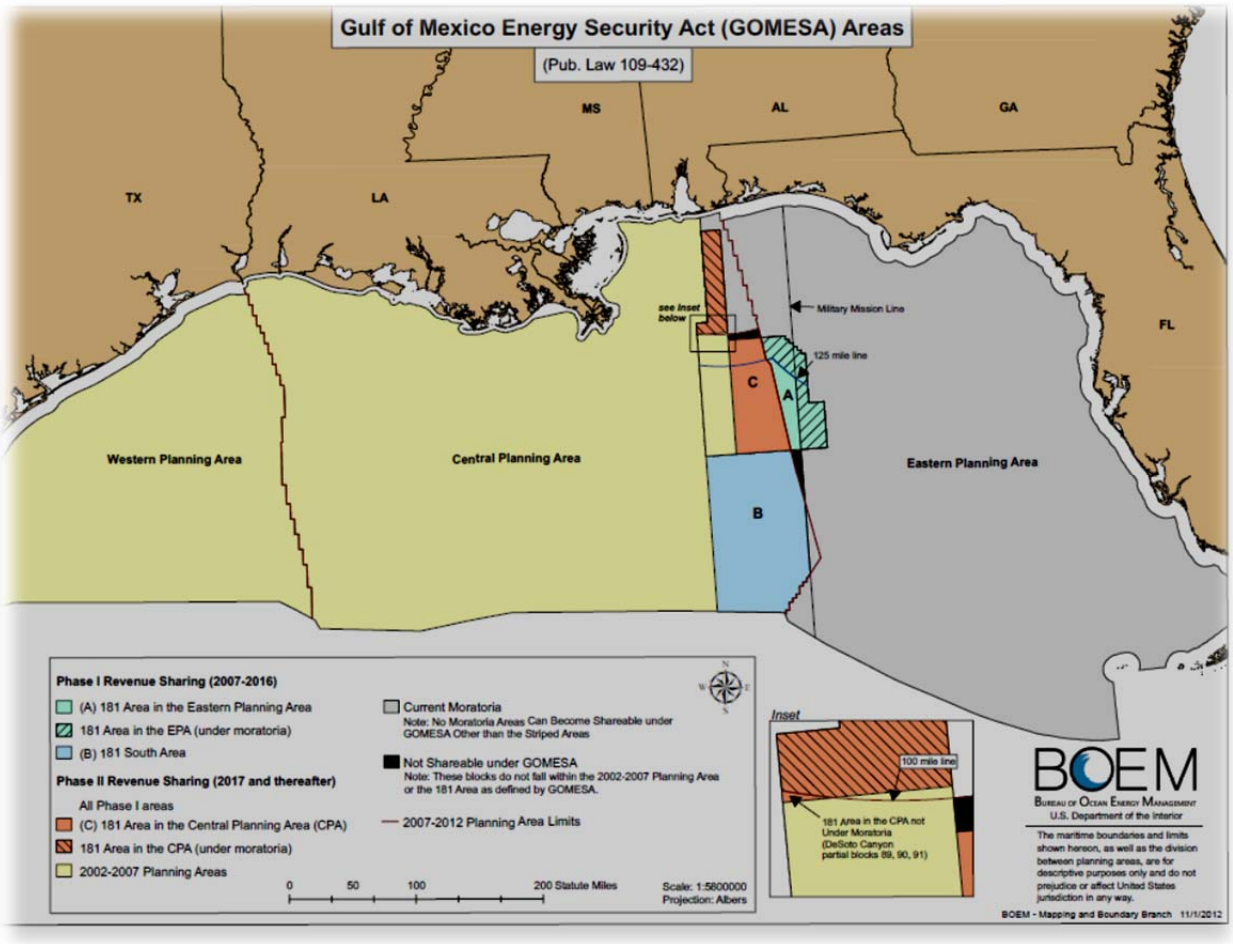
Data source: Oil & Gas Journal

GULF OF MEXICO ENERGY SECURITY ACT (GOMESA)

by
Patty Nussbaum, P.E.
and
Bryan Crouch, P.E.

The Gulf of Mexico Energy Security Act (GOMESA) of 2006 (Pub. Law 109-432) enhances Outer Continental Shelf (OCS) oil and gas leasing activities and revenue sharing in the Gulf of Mexico. It shares leasing revenues with Gulf producing states (Alabama, Louisiana, Mississippi, and Texas) and the Land & Water Conservation Fund for coastal restoration projects, coastal conservation, and hurricane protection.

Figure 1. Gulf of Mexico Energy Security Act (GOMESA) Areas



There are two phases of GOMESA revenue sharing:

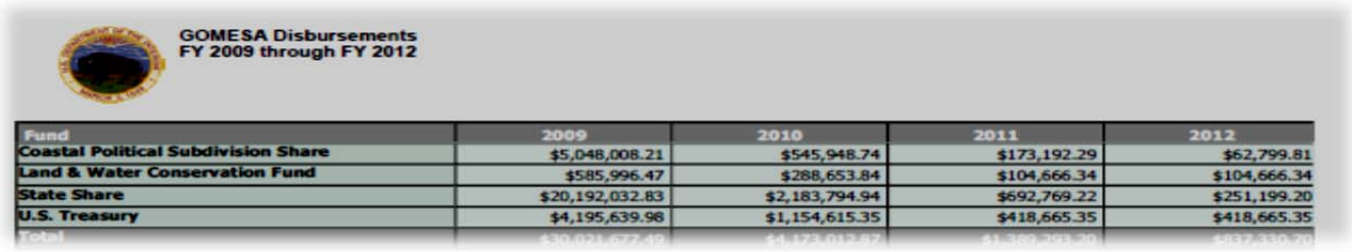
Phase I: Beginning in Fiscal Year 2007, 37.5 percent of all qualified OCS revenues, including bonus bids, rentals and production royalty, will be shared among the four States and their coastal political subdivisions from those new leases issued in the 181 Area in the Eastern planning area and the 181

South Area. Additionally, 12.5 percent of revenues are allocated to the Land and Water Conservation Fund (LWCF).

Phase II: The second phase of GOMESA revenue sharing begins in Fiscal Year 2017. It expands the definition of qualified OCS revenues to include receipts from GOM leases issued either after December 20, 2006 in the 181 Call Area, or in 2002–2007 GOM Planning Areas subject to withdrawal or moratoria restrictions.

GOMESA Revenue-Sharing Allocations (shown below) and other statistical information can be found at http://statistics.onrr.gov/ under Common Data Summaries.

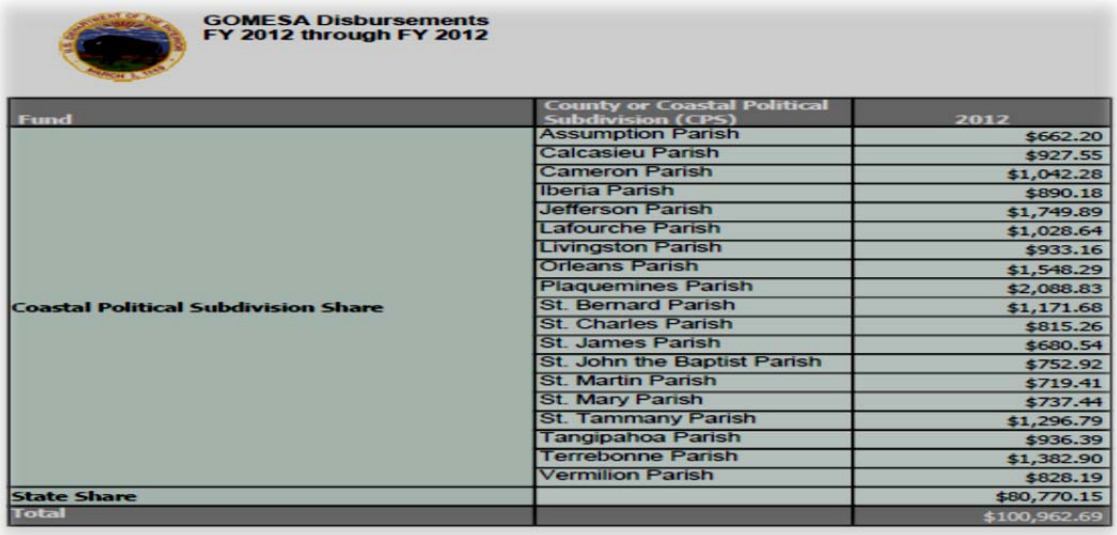
Figure 2. Disbursements for All States FY 2009 – FY 2012



GOMESA Disbursements
FY 2009 through FY 2012

Fund	2009	2010	2011	2012
Coastal Political Subdivision Share	$5,048,008.21	$545,948.74	$173,192.29	$62,799.81
Land & Water Conservation Fund	$585,996.47	$288,653.84	$104,666.34	$104,666.34
State Share	$20,192,032.83	$2,183,794.94	$692,769.22	$251,199.20
U.S. Treasury	$4,195,639.98	$1,154,615.35	$418,665.35	$418,665.35
Total				

Figure 3. Louisiana's Disbursements for FY 2012



GOMESA Disbursements
FY 2012 through FY 2012

Fund	County or Coastal Political Subdivision (CPS)	2012
Coastal Political Subdivision Share	Assumption Parish	$662.20
	Calcasieu Parish	$927.55
	Cameron Parish	$1,042.28
	Iberia Parish	$890.18
	Jefferson Parish	$1,749.89
	Lafourche Parish	$1,028.64
	Livingston Parish	$933.16
	Orleans Parish	$1,548.29
	Plaquemines Parish	$2,088.83
	St. Bernard Parish	$1,171.68
	St. Charles Parish	$815.26
	St. James Parish	$680.54
	St. John the Baptist Parish	$752.92
	St. Martin Parish	$719.41
	St. Mary Parish	$737.44
	St. Tammany Parish	$1,296.79
	Tangipahoa Parish	$936.39
	Terrebonne Parish	$1,382.90
	Vermilion Parish	$828.19
State Share		$80,770.15
Total		$100,962.69

Information on GOMESA can be found at the Bureau of Ocean Energy Management website: http://www.boem.gov/Oil-and-Gas-Energy-Program/Energy-Economics/Revenue-Sharing/Index.aspx.

HIGHLIGHTS OF THE 18TH EDITION OF THE LOUISIANA CRUDE OIL REFINERY SURVEY REPORT

by

Ross LeBlanc

Due to budget constraints, DNR's *Louisiana Crude Oil Refinery Survey Report* has not been published since 2008. The current and 18th edition covers the 12-month period from January 1, 2011 to December 31, 2011. The 18th edition also covers capacity changes from the previous 17th edition (end date 6/30/2008).Louisiana has 16 operating refineries with a combined capacity of 3,255,520 barrels per calendar day (bcd). This is an increase of 184,304 barrels, or 6%, as compared to the 2008 survey report. The throughput for the 12-month period was 1,071,692,927 barrels, and the operating rate was 90.2%. This is an increase of 50,590,567 barrels, or 6%, as compared to the 2008 survey report. ExxonMobil has the most refining capacity in Louisiana as well as the largest single refinery (see Table 1 for details and comparison to the results of DNR's last survey).

DNR's *Louisiana Crude Oil Refinery Survey Report* has not been published since 2008. The current edition covers the 12-month period from January 1, 2011 to December 31, 2011. This edition also covers capacity changes from the previous 17th edition (end date 6/30/2008).

Regular gasoline, diesel, and jet fuel make up the largest percentages of the Louisiana refinery product slate at 41.2%, 11.3%, and 11.3% respectively. The total diesel component of Ultra Low Sulfur Diesel (ULSD) and other diesel is 19.5% (The total diesel component (ULSD and other diesel) is 19.5%.see Table 2). The phase-in for ULSD is complete as of December 1, 2010 for all refinery output of on-highway diesel to be 100% ULSD.

Valero Refining Co. acquired Murphy Oil USA Inc.'s Meraux refinery in October 2011. Marathon's expansion of its Garyville facility is complete and now has an operating capacity of 490,000 barrels per calendar day (bcd), an increase of 235,000 bcd or 99.59%.

Data is also presented in the report from the *Oil and Gas Journal's* annual Worldwide Refinery Report, and the Energy Information Agency's annual Refinery Capacity Report.

The full report will soon be available online in PDF format on the Department of Natural Resources Technology Assessment Division website: (http://dnr.louisiana.gov/sec/execdiv/techasmt/oil_gas/refineries/), and printed copies will also be available soon. If you are currently on our mailing list as a subscriber to this publication, a printed copy will be mailed to you automatically. If you would like to be added to our mailing list to receive a free printed copy, submit an email request to techasmt@la.gov (include your name and address, and specify which publication you are requesting), or contact Jan Janney at 225-342-1270.

Table 1. Louisiana Operating Refinery Capacity and Throughput

Refinery	Operating Capacity as of 12/31/11 (bcd)	Operating Capacity Change [1] (%)	Throughput 1/1/11 - 12/31/11 (barrels)	Throughput Change [2] (%)
Calcasieu Refining Co - Lake Charles	80,000	2.56	20,000,000	8.14
Calumet Lubricants Co LP - Cotton Valley	13,020	7.09	2,954,986	8.03
Calumet Lubricants Co LP - Princeton	10,000	39.70	2,513,498	-4.06
Calumet Shreveport LLC - Shreveport	65,000	0.00	14,567,150	10.96
Chalmette Refining LLC - Chalmette	192,500	-1.79	50,126,910	-14.58
Citgo Petroleum Corp - Lake Charles	425,000	-1.05	147,547,128	12.22
ConocoPhillips - Belle Chasse	247,000	0.00	78,619,690	-9.12
ConocoPhillips - West Lake	239,000	0.00	77,989,876	-8.20
ExxonMobil Refining & Supply Co - Baton Rouge	502,500	0.10	173,661,826	-5.75
Marathon Petroleum Co LLC - Garyville	490,000	92.16	181,033,448	99.59
Motiva Enterprises LLC - Convent	235,000	0.00	82,175,176	3.81
Motiva Enterprises LLC - Norco	233,500	-1.23	75,168,897	-11.17
Valero Refining Co - Meraux	135,000	8.00	36,559,664	24.31
Placid Refining Co - Port Allen	58,000	0.86	20,689,952	4.21
Shell Chemical Co - St. Rose	0	-100.00	0	-100.00
Valero Refining Co - Krotz Spings	80,000	0.00	23,700,411	-6.54
Valero Refining Co - Norco	250,000	0.00	84,384,315	2.29
Totals	3,255,520	6.02	1,071,692,927	6.13

1. Change from end date (6/30/2008) of previous DNR survey to end date (12/31/2011) of 2012 DNR survey.
2. Change from previous DNR survey throughput (7/2007 - 6/2008) to 2012 DNR survey throughput (1/2011-12/2011).

Table 2. Top Products from LA Refineries by % of Product Slate

Product	Total Product Slate (%)
Regular gasoline	41.20
Diesel	19.50
Jet fuel/Kerosene	11.30
Fuel oil	3.50
Residual/Coke	6.70
Premium gasoline	2.9

Gas to Liquids Plants: Turning Louisiana Natural Gas into Marketable Liquid Fuels

by
Edward O'Brien, Senior Economist

The abundance of natural gas in locations around the United States, some of it being classified as stranded, has created the need for economical options to move these resources to market. One option to create this economic opportunity is exploiting the Gas to Liquids (GTL) technology. This technology provides extremely marketable consumer products such as diesel fuel and regular gasoline.

Natural gas used to create GTL is ethane-rich, and there is a need for new ways to make a low-value ethane product economically viable. The present market price for ethane is well below historical values, and projections indicate that this market condition will persist. One option to create economic opportunity is to exploit GTL technology to utilize stranded gas. Currently, there are 4 major global GTL plants: Pearl, Oryx, Bintulu, and Mossel Bay, with two additional plants of comparable size in the planning and development stages located in Louisiana, the 140,000 barrels per day plant in Sorrento being planned by Shell, and a Sasol plant located in Lake Charles, forecasted to produce 96,000 barrels per day. In addition, smaller, less costly plants have been proposed. These smaller plants produce less product, but are less costly. G2X has proposed one such smaller plant in the Lake Charles, capable of producing 12,500 barrels per day at a cost of $1.3 billion. Even smaller proposed plants, such as the Juniper proposal in Lake Charles, are in the vetting process. Juniper is exploring a plant that would produce 1,500 barrels per day at a proposed cost of $100 million.

Table 1. Existing & Proposed GTL Plants

	Name	Location	Company	Capacity (bbl/day)
International	Pearl	Qatar	Shell	120,000
	Oryx	Qatar	Sasol/Qatar Petroleum	34,000
	Bintulu	Malaysia	Shell MDS	14,700
	Mossel Bay	South Africa	PetroSA	45,000
Louisiana (Proposed)	Sasol Louisiana	Westlake	Sasol	96,000
	Shell	Sorrento	Shell	140,000
	Juniper	Westlake	Juniper	1,500
	G2X	Lake Charles	G2X	12,500

Sources:
http://www.sasollouisianaprojects.com/userfiles/Sasol%20projects%20placemat.pdf
http://www.louisianaeconomicdevelopment.com/index.cfm/newsroom/detail/474
http://www.ogj.com/articles/2013/09/shell-selects-louisiana-site-for-12-5-billion-world-scale-gtl-facility.html
http://g2xenergy.com/press/governor-jindal-highlights-g2x-energy-plans-for-1-3-billion-natural-gas-to-gasoline-facility-in-southwest-louisiana/
http://www.shell.com/global/aboutshell/major-projects-2/pearl/overview.html
http://www.oryxgtl.com.qa/index.html
http://www.petrosa.co.za/innovation_in_action/Pages/Operations-and-Refinery.aspx
http://www.theoildrum.com/node/7118

Early capital costs for GTL plants were estimated at $100,000 per daily barrel. This had been reduced to $25,000 – $45,000 per daily barrel by 2000, depending on production scale and site selection. Since

then, advances in GTL technology, particularly the use of better catalysts, have been responsible for this significant drop in costs and the increased commercial viability of GTL projects. Despite this, GTL investment is still very capital intensive when compared to investments in a conventional refinery estimated to cost in the range of $12,000 – $14,000 per daily barrel. The market expects at least 10 GTL plants to be built in the next 10 years at a value of $12 - $20 billion each. GTL plants are the most attractive way to realize the value in natural gas when oil prices are above $60 per barrel and gas prices are below $8 per million British thermal units, according to the 2012 "Global Energy Assessment," a landmark study compiled by the International Institute for Applied Systems Analysis.

Pearl GTL Plant – Qatar

Pearl GTL is the largest GTL plant, located in Ras Laffan Industrial City, 80 km north of Doha, Qatar. Pearl is capable of producing 140,000 barrels of GTL products each day, of which 120,000 barrels are natural gas liquids and ethane. This plant is owned and operated by Shell.

When proposed in 2003, the Pearl GTL plant was estimated to cost $5 billion; however, with cost escalation, that estimate was increased in 2007 to $18 billion. Completed in 2012, the final cost for the Pearl GTL plant was $19 billion. In the ten years for completion, the project's cost escalated by 280%, or $14 billion.

Onyx – Qatar

Oryx, completed in December 2005, produces approximately 34,000 barrels of GTL products each day, 24,000 barrels of diesel, 9,000 barrels of naphtha, and 1,000 barrels of liquefied petroleum gas. Located in the Ras Laffan Industrial City Complex, it is owned and operated jointly by Sasol (49%) and Qatar Petroleum (51%). The plant's estimated use is 330,000 cubic feet of gas per day.

Construction started in November 2003 on the Oryx plant. At that time, the plant was projected to cost $900 million to build, and came in at a $1.2 billion cost, an increase of $300 million, or 33%. There has been discussion about expanding the plant in a joint venture with Chevron, Sasol, and Qatar Petroleum to reach an output level of 100,000 barrels per day of GTL products. This 66,000 barrel per day increase is expected to cost $1 billion.

Bintulu – Malaysia

Shell built the first medium-scale commercial GTL plants in 1993 at Bintulu, Malaysia, using the Shell Middle Distillates Synthesis technology. The plant had a capacity of 12,500 barrels a day of GTL products at start-up, which increased to 14,700 barrels a day of GTL products in 2005.

With the original plant costing $850 million, capital costs have exceeded $1 billion with the 2005 expansion. That is a capital cost of $68,000 per daily barrel. In addition, Shell is expected to spend an additional $15 million on the plant by 2015 to enable further product development. Approximately 95 per cent of Shell GTL products from this plant are exported worldwide.

Mossel Bay – South Africa

Commissioned in 1992 as the world's first gas-to-liquids refinery, Mossel Bay remains the third largest GTL refinery among the five now operating worldwide. It is capable of producing a crude oil equivalent of 45,000 barrels per day of GTL product. Developed by Sasol and run by PetroSA, Mossel Bay cost $4 billion to build in 1992. Current production of GTL liquids is at 40,000 barrels per day. There is discussion about expanding the plant another 13,000 barrels a day, with the proposed online date of 2019.

LOUISIANA

Shell Geismar Proposed Plant

In September 2013, Shell announced that it was proceeding to the planning and environmental planning stages for a new GTL plant located in Geismar, Louisiana. With a planned expenditure of $12.5 billion for the GTL plant, the expected capacity for the proposed plant will be 140,000 barrels per day of GTL liquids. The exploration phase is scheduled to last until 2015. If approval is granted from Shell to proceed, construction is expected to last until 2019, when it becomes operational.

Sasol Westlake Proposed Plant

Sasol has proposed the first GTL plant in the United States, to be built in Westlake. The $14 billion plant is expected to produce in excess of 96,000 barrels of GTL liquids per day. Coupled with an ethylene cracker unit, which is being built at the facility, Sasol is expected to invest $21 billion for both of these projects. Construction on the GTL plant is expected to start in 2016, with completion expected in 2020. The feasibility study for this project was completed in December 2012, and Sasol decided to proceed with the projects.

G2X GTL Proposed Plant

G2X is currently conducting a feasibility study for a $1.3 billion dollar GTL plant to be constructed in Lake Charles. The study, which is expected to be completed by the end of 2013, will determine whether or not G2X will continue with the construction of the plant, which is expected to produce 12,500 barrels of GTL liquids per day. If green-lighted, the plant will start construction in 2014, with an expected completion date of 2017.

Juniper Proposed Plant

Juniper has proposed constructing a small GTL plant in Westlake. The company will invest $100 million to renovate a dormant steam methane reformer and convert it to a natural gas-to-liquids facility. This plant is expected to produce 1,500 barrels of GTL liquids per day. Construction is expected to start by the end of 2013, with a completion date of 2015.

Table 2.

Internal Rate of Return Calculations for Different Price Points							
	Unit Capex/day	$50,000	$80,000	$110,000	$140,000	$170,000	$200,000
$/barrel	Feed Gas ($/MMBTU)						
$50.00	$1.50	11.8%	5.5%	0.7%	Neg	Neg	Neg
	$2.50	7.7%	0.7%	Neg	Neg	Neg	Neg
	$3.50	0.7%	Neg	Neg	Neg	Neg	Neg
	$4.50	Neg	Neg	Neg	Neg	Neg	Neg
	$5.50	Neg	Neg	Neg	Neg	Neg	Neg
	$6.50	Neg	Neg	Neg	Neg	Neg	Neg
$75.00	$1.50	20.9%	13.6%	9.3%	6.1%	3.2%	0.7%
	$2.50	18.2%	11.3%	7.3%	3.7%	0.7%	Neg
	$3.50	15.2%	8.8%	4.4%	0.7%	Neg	Neg
	$4.50	12.4%	6.4%	2.1%	Neg	Neg	Neg
	$5.50	9.6%	4.0%	Neg	Neg	Neg	Neg
	$6.50	6.7%	1.6%	Neg	Neg	Neg	Neg
$100.00	$1.50	28.0%	19.3%	14.3%	11.0%	8.5%	6.3%
	$2.50	25.8%	17.5%	12.8%	9.6%	7.1%	4.7%
	$3.50	23.4%	15.6%	11.1%	8.0%	5.3%	2.9%
	$4.50	21.1%	13.8%	9.5%	6.5%	3.8%	1.2%
	$5.50	18.8%	11.9%	7.9%	5.0%	2.2%	Neg
	$6.50	16.5%	10.1%	6.3%	3.5%	0.6%	Neg
$125.00	$1.50	34.0%	24.0%	18.5%	14.8%	12.0%	9.9%
	$2.50	32.1%	22.5%	17.2%	13.6%	10.9%	8.8%
	$3.50	30.1%	20.9%	15.8%	12.3%	9.8%	7.7%
	$4.50	28.2%	19.4%	14.5%	11.1%	8.7%	6.6%
	$5.50	26.2%	17.8%	13.1%	9.8%	7.6%	5.5%
	$6.50	24.3%	16.3%	11.8%	8.6%	6.5%	4.4%
$150.00	$1.50	39.2%	32.4%	28.3%	23.6%	20.2%	17.5%
	$2.50	37.6%	30.2%	26.9%	22.8%	19.4%	16.8%
	$3.50	35.8%	28.6%	25.5%	21.9%	18.6%	16.0%
	$4.50	34.1%	27.2%	24.1%	21.1%	17.8%	15.3%
	$5.50	32.4%	26.6%	22.7%	20.2%	17.0%	14.5%
	$6.50	30.7%	25.4%	21.3%	19.4%	16.2%	13.8%

2014 SERVICE QUESTIONNAIRE

LOUISIANA DEPARTMENT OF NATURAL RESOURCES - TECHNOLOGY ASSESSMENT DIVISION

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Our goal is to provide accurate and timely information on oil, gas, and energy production and use in Louisiana. By taking a few minutes to fill in our 2014 Service Questionnaire, your comments enable us to see how we are doing, and allows you to suggest areas where we might improve.

Thank you, in advance, for helping us to provide you with the best service possible.

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