State Coal Profile: Louisiana

Coal is a relatively new source of energy in Louisiana. Large amounts of coal from other States were first consumed in Louisiana in the early 1980's to generate electricity. Production and consumption of Louisiana's coal, all lignite, began in the mid-1980's. Although the annual output of lignite has risen to about 3 million short tons, its role in Louisiana's economy is greatly overshadowed by the large amounts of natural gas and crude oil produced in the State.

Lignite deposits of commercial importance occur in the northwestern part of Louisiana. Lignite was found in that area as early as 1812, nearly a century before petroleum was discovered in the State. In the early 1800's, small amounts of lignite dug from outcrops were used locally as fuel for blacksmithing and domestic heating. Around the turn of the century, lignite was used to heat a school near Mansfield. It was also tested as a locomotive fuel, but found unsuitable. Attempts to mine lignite underground were short-lived, due not only to a lack of markets, but also to the difficulty of mining under strata that had to be supported with extensive timbering. Interest in lignite faded in the early 1900's when the State's large oil and gas fields were developed.

Interest in Louisiana's lignite was renewed during World War II when the Nation assessed its mineral resources. The lignite could not compete as a fuel, but it had potential as raw material for making certain chemicals, dyes, fertilizers, and livestock feeds. A large amount of such products had been imported from Europe, particularly Germany. However, Louisiana's lignite was never used during the war.

In the 1950's and 1960's, lignite was recognized as a potential fuel for generating electricity in the State, and large reserves were delineated in the Dolet Hills area, near Mansfield, De Soto Parish. At the time, however, lignite was not cost-competitive. The economics changed in the late 1970's as pricing and legislation limited the use of natural gas as a power plant fuel. As a result, when the Central Louisiana Electric Company, Incorporated, and the Southwestern Electric Power Company evaluated their options to meet a growing demand for electricity, they jointly agreed that a mine-mouth power plant, fueled with lignite, would be the most economical choice. The site selected for both a surface mine and a power plant was Dolet Hills.

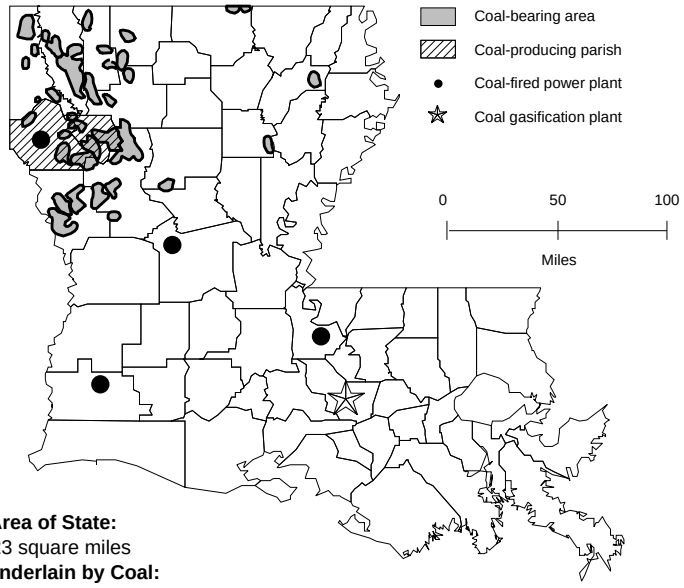
In 1985, the Dolet Hills mine, operated by Dolet Hills Mining Company, began supplying lignite to the power plant's stockpile by use of a 7.5-mile-long conveyor. The following year, the power plant began commercial operations with a generating capability of 650 megawatts. In late 1989, a second, smaller surface mine was opened in nearby Red River Parish to provide an additional source of lignite, delivered by truck to the power plant. In general, the lignite beds mined (part of the Wilcox Group) average 6 feet in thickness.

In 1992, Louisiana's lignite output climbed to a record of more than 3 million short tons. It accounted for about one-fourth of the 14 million short tons of coal consumed in the State. Wyoming was by far the principal source of coal consumed in Louisiana, nearly all used to generate electricity. The State's largest coal-burning power plant is the 1,620-megawatt Big Cajun 2, operated by Cajun Electric Power Cooperative, Inc., in Pointe Coupee Parish. The plant is fueled with Wyoming subbituminous coal. The industrial use of coal in Louisiana is largely centered at a coal gasification plant at Plaquemine. The plant, placed in service in 1987, is one of three U.S. coal gasification plants currently in commercial use. It is operated by Destec Energy, Incorporated, to supply electricity and superheated steam to an adjacent chemical complex of the Dow Chemical Company. The plant has a generating capacity of 160 megawatts and uses more than 2,000 short tons of coal per day, all low-sulfur subbituminous coal from Wyoming. A small amount of coal from Kentucky is also used in paperboard manufacturing.

Large amounts of coal from other States are exported through the New Orleans Customs District, which includes the port areas of New Orleans and Baton Rouge on the lower Mississippi River. The coal is handled at terminals and also transloaded midstream from barges to ships. In 1992, about 13 million short tons of coal, mostly steam coal, were exported through the New Orleans

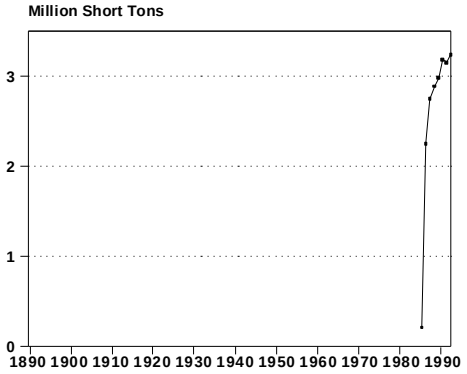
Customs District. This represented about 13 percent of total U.S. coal exports and ranked New Orleans as the third-largest coal-exporting district, following Norfolk, Virginia, and Cleveland, Ohio. Small amounts of coal for power plants in other southern States have also been imported through New Orleans.

Louisiana



Total Area of State:
48,523 square miles
Area Underlain by Coal:
1,360 square miles

Coal Production, 1890-1992



First Year of Documented Coal Production . . . . . **1985 (207,000 short tons)**
Peak Year of Coal Production . . . . . **1992 (3,240,000 short tons)**

Coal Reserves (million short tons)

Type of Reserve	Underground	Surface	Total
Demonstrated Reserve Base:			
(January 1, 1992)	0	484	484
Estimated Recoverable Reserves:			
(January 1, 1992)			
Sulfur Content (pounds per million Btu)			
< 0.61 (low sulfur)	0	0	0
0.61-1.67 (medium sulfur)	0	359	359
> 1.67 (high sulfur)	0	0	0
Total	0	359	359
Estimated Recoverable Reserves at Active Mines, Year-End 1992	0	W	W

Production

Salient Data by Mine Type	1980	1985	1990	1991	1992
Underground					
Quantity (thousand short tons)	0	0	0	0	0
Mines	0	0	0	0	0
Miners	0	0	0	0	0
Productivity (short tons per miner per hour)	--	--	--	--	--
Average Mine Price (dollars per short ton)	--	--	--	--	--
Surface					
Quantity (thousand short tons)	0	207	3,186	3,151	3,240
Mines	0	1	2	2	2
Miners	0	72	103	103	77
Productivity (short tons per miner per hour)	--	2.34	13.16	12.56	12.43
Average Mine Price (dollars per short ton)	--	W	W	W	W
Total					

Louisiana

Quantity (thousand short tons)	0	207	3,186	3,151	3,240
Mines	0	1	2	2	2
Miners	0	72	103	103	77
Productivity (short tons per miner per hour)	--	2.34	13.16	12.56	12.43
Average Mine Price (dollars per short ton)	--	W	W	W	W

Louisiana

Number of Mines by Production Range and Percent of Production, 1992

Mine Type	Production Range (thousand short tons)							
	1,000 and over		500 to 999		100 to 499		< 100	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Underground	0	0	0	0	0	0	0	0
Surface	1	83	1	17	0	0	0	0
All Mines	1	83	1	17	0	0	0	0

Coal Demand

Disposition	1980	1985	1990	1991	1992
Consumption (thousand short tons)					
Electric Utilities	0	8,760	11,748	12,406	13,025
Coke Plants	0	0	0	0	0
Other Industrial	107	W	W	W	W
Residential and Commercial	4	W	W	W	W
Total	111	9,217	12,547	12,965	13,622
Year-End Utility Stocks					
(thousand short tons)	0	1,978	2,458	2,235	1,701
Electricity Generation					
Total (million kilowatthours)	45,744	44,261	58,168	57,158	55,188
Coal (percent)	0	32	31	33	36
Nuclear (percent)	0	6	24	24	19
Other (percent)	100	62	45	43	45

Utility Coal Data, 1992

Average Quality and Average Delivered Cost	Produced in State	Receipts, All Sources
Heat Content (million Btu per short ton)	13.90	16.24
Sulfur Content (percent by weight)	.62	.50
Ash Content (percent by weight)	12.14	7.20
Pounds of Sulfur per million Btu	.89	.62
Dollars per million Btu	1.38	1.54
Dollars per short ton	19.22	24.93

Louisiana

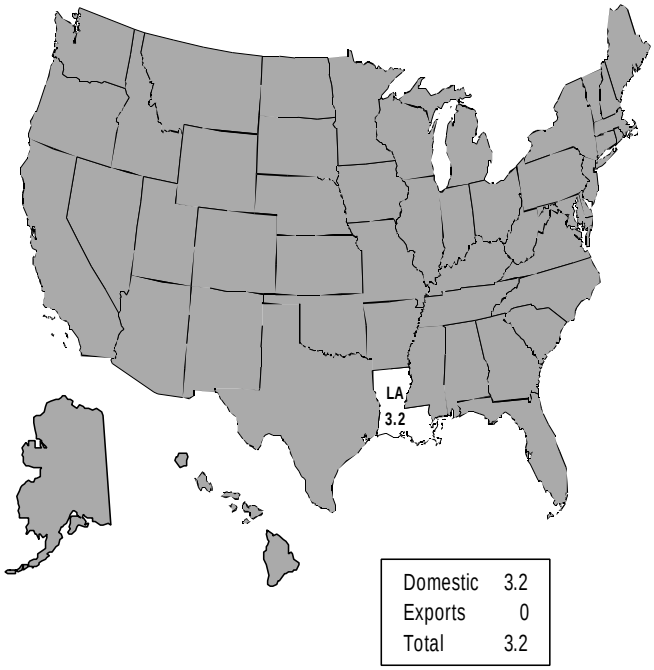
Estimated Total State Energy Consumption, 1991: 3,469 trillion Btu (**coal**, 214; **natural gas**, 1,579; **petroleum**, 1445; **nuclear electric power**, 150; **hydroelectric power**, 0; **other**, 0; **net interstate flow of electricity and associated losses**, 81).

W = Withheld to avoid disclosure of individual company data.

Notes: **Totals may not equal sum of components because of independent rounding. Data coverage—Production**: all mines. **Number of mines:** 1980, mines that produced 10,000 short tons or more; other years, all mines. **Number of miners and productivity**: mines that produced 10,000 or more short tons and preparation plants that had 5,000 or more employee hours. **Average mine price**: mines that produced 10,000 or more short tons. **Average quality and average delivered cost of utility coal** power plants with a generator nameplate capacity of 50 megawatts or more. Extent of coal-bearing areas and locations of coal-consuming plants shown on map are approximate; small coal deposits are not shown. Coal-producing counties shown on map exclude any county where all 1992 output was from mines producing less than 10,000 short tons.

Sources: Energy Information Administration—*U.S. Coal Reserves: An Update by Heat and Sulfur Content*, February 1993; *Coal Production 1992* and prior issues; *Coal Data: A Reference; Quarterly Coal Report October-December 1992* and prior issues; *Electric Power Annual 1991* and prior issues; *Electric Power Monthly*, March 1993; *Cost and Quality of Fuels for Electric Power Plants 1992; Inventory of Power Plants in the United States 1992; State Energy Data Report 1991: Consumption Estimates*; Map of coal-bearing areas is based mainly on U.S. Geological Survey map, *Coalfields of the United States, 1960*. Data for historical graph 1890-1975, U.S. Department of the Interior, Geological Survey and Bureau of Mines (*Minerals Yearbook* and annual predecessor *Mineral Resources of the United States*); 1976 forward, Energy Information Administration, *Coal Production 1992* and prior issues.

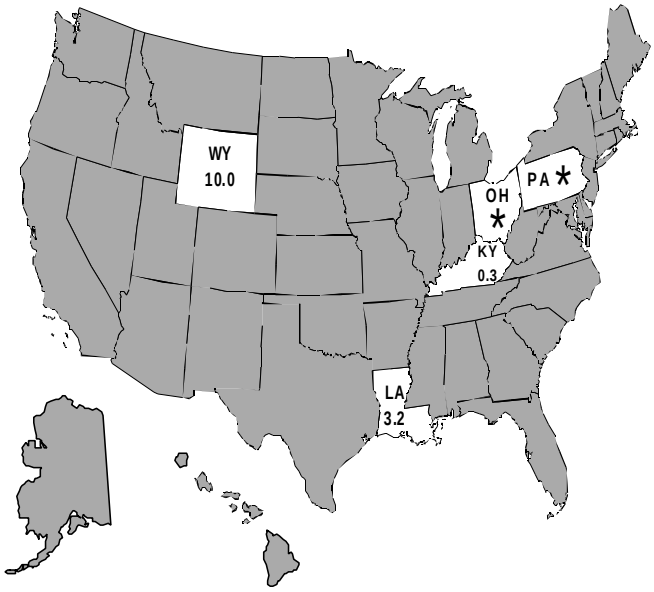
Destination of Coal Produced in Louisiana, 1992
(Million Short Tons)



Transportation modes, domestic markets (percent): truck, 17; tramway/conveyor, 83.

Note: Total may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."

Origin of Coal Received in Louisiana, 1992
(Million Short Tons)



* Quantity is less than 0.1 million short tons.

Total	13.5

Note: Total may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."