

Louisiana

Utility natural gas generators in Louisiana produced 24.0 billion kilowatthours in 1996, which was 30.6 percent of the State's total electricity generation. It is not surprising that Louisiana's generation is heavily based on gas since it ranks second in gas production. Only Texas produced more natural gas than Louisiana in 1997.¹ Three of the four largest plants in the State, including the two largest, Willow Glen and Ninemile, are gas-fired. These three plants are located in the southeastern part of the State near New Orleans. Ninemile, the second largest plant in the State, is operated by the the Louisiana Power and Light Company, the largest utility in Louisiana.

Louisiana's five largest utilities—Louisiana Power and Light, Gulf States Utilities, Central Louisiana Electric, Cajun Electric Power Cooperative, and New Orleans Public Service—operated 79.0 percent of the State's net summer capability in 1996. The six investor-owned utilities in the State accounted for about 87 percent of Louisiana's retail sales. In 1996, 78.3 billion kilowatthours of electricity were generated in Louisiana. The average retail price was 6.07 cents per kilowatthour, which was twenty-second lowest in the Nation. The nonutility share of generation in Louisiana was stable over the 11 years examined, rising from 24.7 percent of the State total in 1986 to 25.1 percent in 1996.

Between 1986 and 1996, electricity sales increased at an average annual rate of 2.4 percent. In 1996, utility retail sales were 75.3 billion kilowatthours, with industrial sales accounting for 43.2 percent of retail sales and residential sales accounting for 32.3 percent of the total.

Much like Texas and Mississippi, which border Louisiana, the State's electricity generation fuel mix is mainly coal, gas, and nuclear fuel. However, Texas and Mississippi use primarily coal, while gas-fired utility plants generated more electricity in Louisiana than any others. Roughly 70 percent of the coal used for electricity generation in Louisiana comes from the Powder River Basin in Wyoming; the remainder comes from Louisiana's own coal deposits.²

Louisiana is very reliant on its two nuclear power plants, Waterford, the fifth largest plant in the State, and River Bend. In 1996, these nuclear plants produced 15.8 billion kilowatthours of electricity. For most of the 11 years examined in this report, Louisiana's nuclear capacity factor was higher than the national average. While the share of total capability of nuclear units remained relatively stable over the 11 years examined, the share of net generation grew from 15.2 percent in 1986 to 20.1 percent in 1996.

Louisiana has not moved as quickly as some other States toward deregulating its electric power industry. In 1997, all deregulation bills that were introduced in the State legislature failed, although Resolution 150 created a study committee on electric power restructuring. In March 1998, the deregulation committee of the Public Service Commission (PSC) and the legislature met to discuss the tax implications of deregulation. In August 1998, the PSC conducted hearings on stranded costs. The PSC plans to develop draft legislation for 1999.³

¹Energy Information Administration, *Natural Gas Annual 1997*, DOE/EIA-0131(97) (Washington, DC, October 1998), p. 11.

²Energy Information Administration, *State Coal Profiles*, DOE/EIA-0576 (Washington, DC, January 1994), p. 107.

³Energy Information Administration, Status of State Electric Utility Deregulation Activity, http://www.eia.doe.gov/cneaf/electricity/chg_str/tab5rev.html.

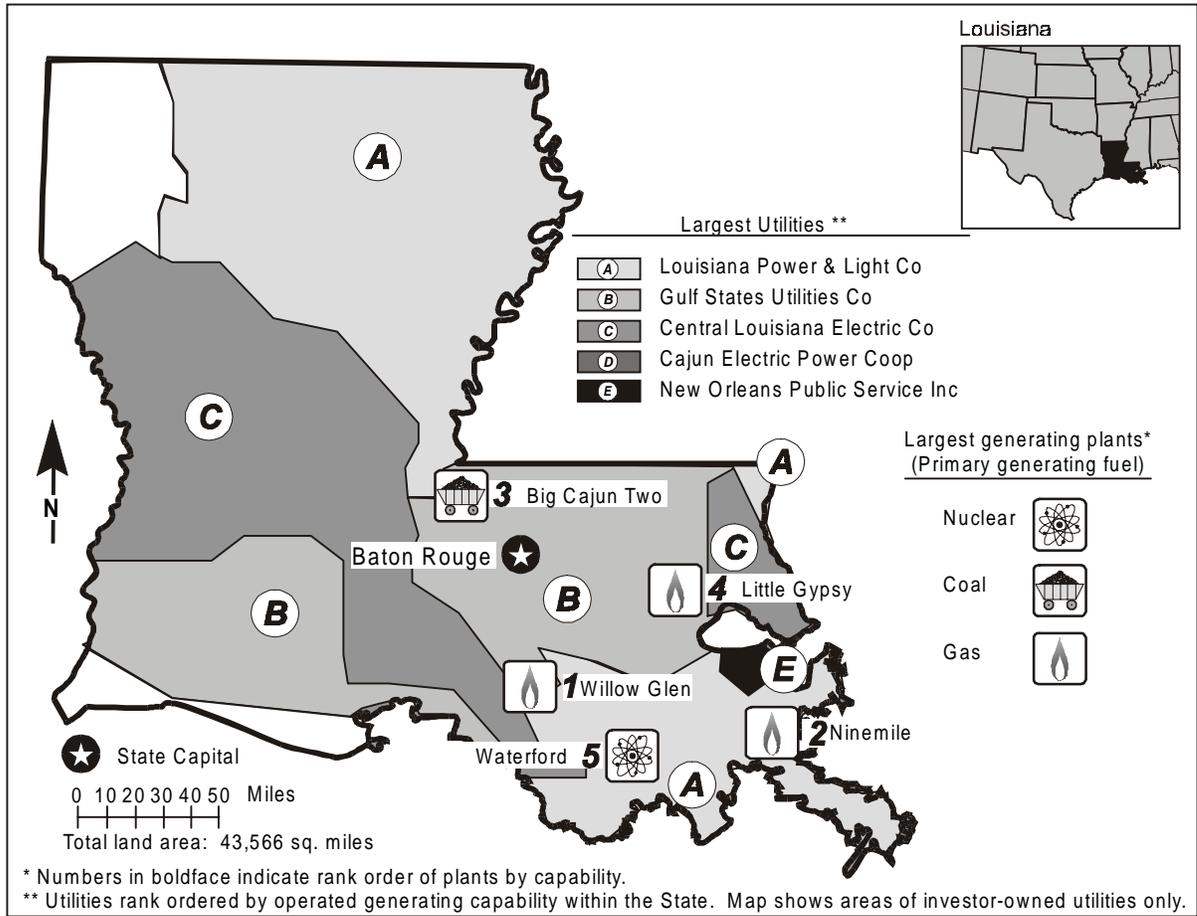


Table 1. 1996 Summary Statistics

Item	Value	U.S. Rank	Item	Value	U.S. Rank
NERC Region(s)		SPP/SERC	Utility		
Net Exporter or Importer		Importer	Capability (MWe)	17,150	16
State Primary Generating Fuel		Gas	Generation (MWh)	58,643,113	20
Population (as of 7/96)	4,340,818	22	Average Age of Coal Plants	13 years	
Average Revenue (cents/kWh)	6.07	^a 22	Average Age of Oil-fired Plants	27 years	
Industry			Average Age of Gas-fired Plants	27 years	
Capability (MWe)	20,104	^b 14	Average Age of Nuclear Plants	11 years	
Generation (MWh)	78,266,814	^b 17	Average Age of Hydroelectric Plants	--	
Capability/person (KWe/person)	4.63	^b 5	Average Age of Other Plants	--	
Generation/person (MWh/person)	18.03	^b 8	Nonutility^c		
Sulfur Dioxide Emissions (Thousand Short Tons)	367	14	Capability (MWe)	2,954	7
Nitrogen Oxide Emissions (Thousand Short Tons)	164	17	Percentage Share of Capability	14.7	9
Carbon Dioxide Emissions (Thousand Short Tons)	62,382	14	Generation (MWh)	19,623,701	5
Sulfur Dioxide/sq. mile (Tons)	8.42	16	Percentage Share of Generation	25.1	7
Nitrogen Oxides/sq. mile (Tons)	3.78	18			
Carbon Dioxide/sq. mile (Tons)	1,431.89	20	-- = Not applicable.		

Table 2. Five Largest Utility Plants, 1996

Plant Name	Type	Operating Utility	Net Capability (MWe)
1. Willow Glen	Gas	Gulf States Utilities Co	2,045
2. Ninemile	Gas	Louisiana Power & Light Co	1,954
3. Big Cajun 2	Coal	Cajun Electric Power Coop Inc	1,730
4. Little Gypsy	Gas	Louisiana Power & Light Co	1,253
5. Waterford	Nuclear	Louisiana Power & Light Co	1,075

Table 3. Top Five Utilities with Largest Generating Capability, and Type, Within the State, 1996
(Megawatts Electric)

Utility	Net Summer Capability	Net Coal Capability	Net Oil Capability	Net Gas Capability	Net Nuclear Capability	Net Hydro/Other Capability
A. Louisiana Power & Light Co	5,707	--	19	4,613	1,075	--
B. Gulf States Utilities Co	4,701	550	--	3,215	936	--
C. Central Louisiana Elec Co Inc ...	2,439	1,173	--	1,266	--	--
D. Cajun Electric Power Coop Inc ..	1,950	1,730	--	220	--	--
E. New Orleans Public Service Inc ..	1,077	--	16	1,061	--	--
Total	15,874	3,453	35	10,375	2,011	--
Percentage of Industry Capability	79.0	--	--	--	--	--

-- = Not applicable.

Figure 1. Utility Generating Capability by Primary Energy Source, 1996

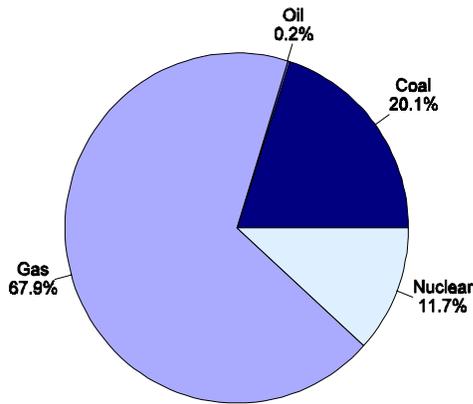


Figure 2. Utility Generation by Primary Energy Source, 1996

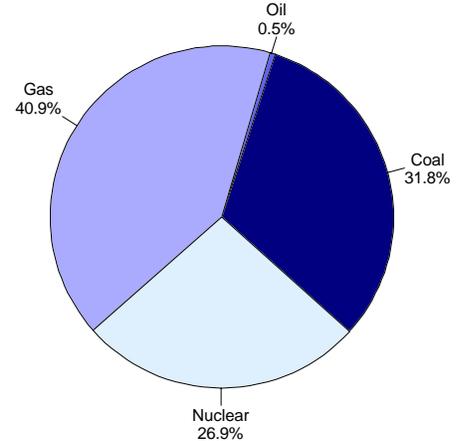


Figure 3. Energy Consumed at Electric Utilities by Primary Energy Source, 1996

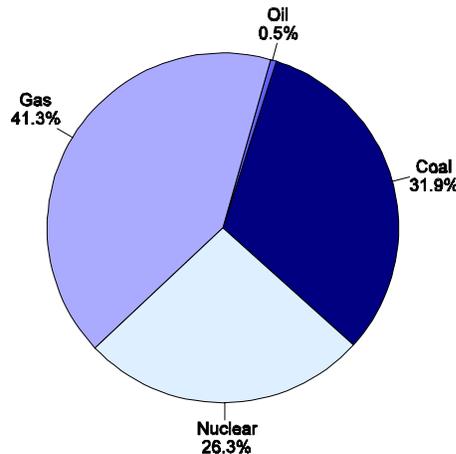


Table 4. Electric Power Industry Generating Capability by Primary Energy Source, 1986, 1991, and 1996
(Megawatts Electric)

Fuel	1986	1991	1996	Percentage Share 1986	Percentage Share 1991	Percentage Share 1996
Coal	3,334	3,343	3,453	17.3	17.2	17.2
Oil	594	17	35	3.1	0.1	0.2
Gas	10,914	11,424	11,651	56.6	58.7	58.0
Nuclear	1,994	2,011	2,011	10.3	10.3	10.0
Hydro/Other	--	--	--	--	--	--
Total Utility	16,836	16,795	17,150	87.3	86.2	85.3
Total Nonutility	2,450	2,681	2,954	12.7	13.8	14.7
Industry	19,286	19,476	20,104	100.0	100.0	100.0

-- = Not applicable.

Table 5. Electric Power Industry Generation of Electricity by Primary Energy Source, 1986, 1991, and 1996
(Thousand Kilowatthours)

Fuel	1986	1991	1996	Percentage Share 1986	Percentage Share 1991	Percentage Share 1996
Coal	15,585,722	18,911,856	18,632,666	22.2	25.2	23.8
Oil	418,739	45,305	273,308	0.6	0.1	0.3
Gas	26,201,723	24,244,619	23,972,316	37.3	32.3	30.6
Nuclear	10,637,262	13,956,196	15,764,823	15.2	18.6	20.1
Hydro/Other	--	--	--	--	--	--
Total Utility	52,843,447	57,157,976	58,643,113	75.3	76.2	74.9
Total Nonutility	17,317,837	17,825,638	19,623,701	24.7	23.8	25.1
Industry	70,161,284	74,983,614	78,266,814	100.0	100.0	100.0

-- = Not applicable.

Table 6. Electric Power Industry Consumption by Primary Energy Source, 1986, 1991, and 1996
(Quadrillion Btu)

Fuel	1986	1991	1996	Percentage Share 1986	Percentage Share 1991	Percentage Share 1996
Coal	0.166	0.204	0.203	17.5	20.5	19.1
Oil	0.004	0.001	0.003	0.5	0.1	0.3
Gas	0.280	0.265	0.263	29.5	26.6	24.6
Nuclear	0.115	0.150	0.167	12.1	15.1	15.7
Hydro/Other	--	--	--	--	--	--
Total Utility	0.565	0.619	0.637	59.5	62.3	59.6
Total Nonutility	0.384	0.375	0.431	40.5	37.7	40.4
Industry	0.948	0.994	1.068	100.0	100.0	100.0

-- = Not applicable. (s) = Nonzero value less than 0.0005.

Figure 4. Utility Generation of Electricity by Primary Energy Source, 1986-1996

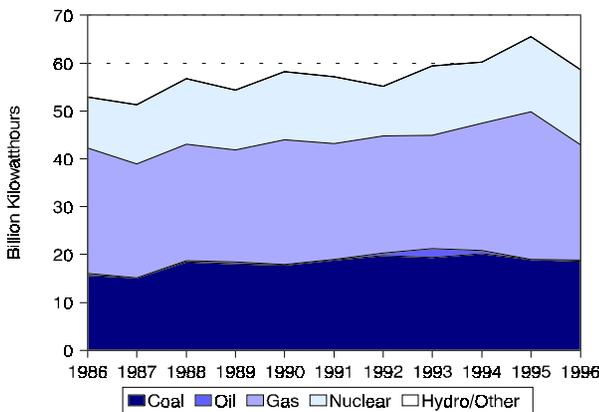


Figure 5. Utility Delivered fuel Prices for Coal, Oil, and Gas, 1986-1996
(1996 Dollars)

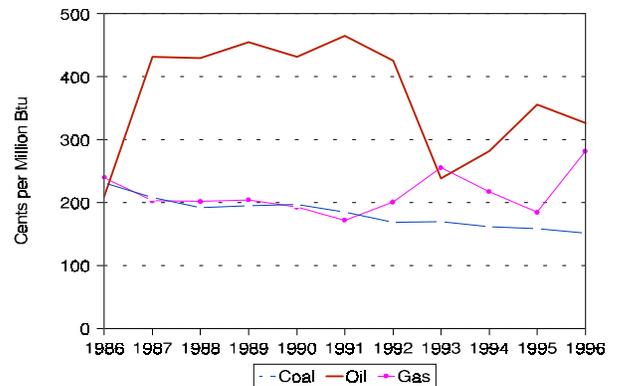


Table 7. Utility Delivered Fuel Prices for Coal, Oil, and Gas, 1986, 1991, and 1996
(Cents per Million Btu, 1996 Dollars)

Fuel	1986	1991	1996	Annual Growth Rate 1986-1996 (Percent)
Coal	231.6	185.2	151.4	-4.2
Oil	209.0	464.6	326.8	4.6
Gas	239.5	172.1	281.6	1.6

Table 8. Electric Power Industry Emissions Estimates, 1986, 1991, and 1996
(Thousand Short Tons)

Emission Type	1986	1991	1996	Annual Growth Rate 1986-1996 (Percent)
Sulfur Dioxide	83	118	367	16.1
Nitrogen Oxides ^d . .	109	162	164	4.1
Carbon Dioxide ^d . . .	32,844	53,465	62,382	6.6

Figure 6. Estimated Sulfur Dioxide Emissions, 1986-1996

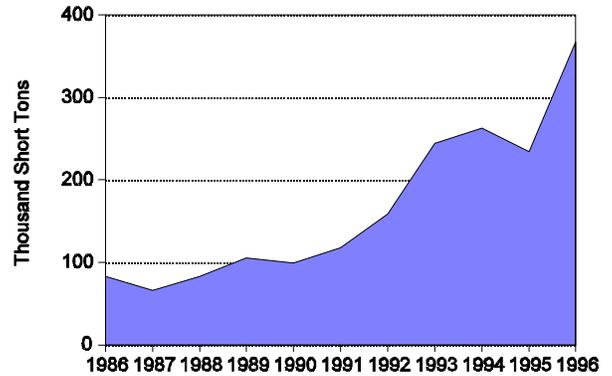


Figure 7. Estimated Nitrogen Oxide Emissions, 1986-1996

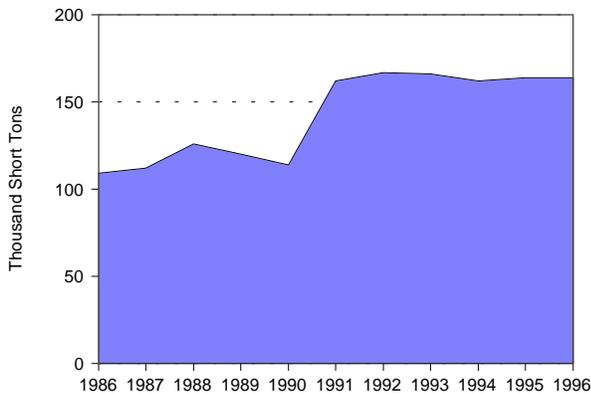


Figure 8. Estimated Carbon Dioxide Emissions, 1986-1996

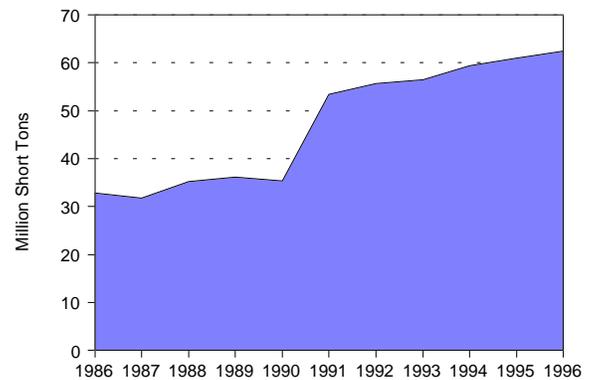


Table 9. Utility Retail Sales by Sector, 1986, 1991, and 1996
(Megawatthours)

Sector	1986	1991	1996	Annual Growth Rate 1986-1996 (Percent)	Percentage Share 1986	Percentage Share 1991	Percentage Share 1996
Residential . . .	20,263,134	21,576,815	24,310,803	1.8	34.2	33.3	32.3
Commercial . .	12,663,325	13,970,340	15,919,843	2.3	21.4	21.6	21.2
Industrial	22,473,936	26,583,900	32,544,269	3.8	37.9	41.1	43.2
Other	3,891,915	2,573,244	2,494,180	-4.4	6.6	4.0	3.3
Total	59,292,307	64,704,299	75,269,095	2.4	100.0	100.0	100.0

Figure 9. Nuclear Power Capacity Factor Comparison, 1986-1996

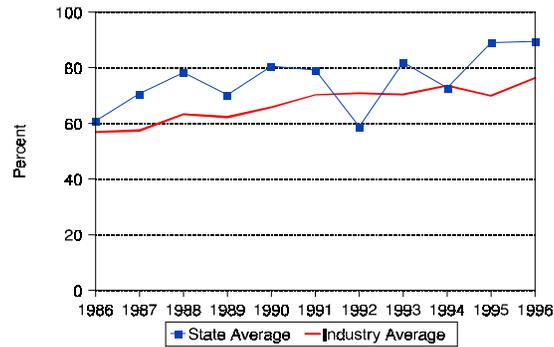


Table 10. Utility Retail Sales Statistics, 1986, 1991, and 1996

Item	Investor-Owned Utility	Public	Federal	Cooperative	Total
	1986				
Number of Utilities	6	20	--	14	40
Number of Retail Customers	1,383,429	130,122	--	310,022	1,823,573
Retail Sales (MWh)	51,930,102	2,775,849	--	4,586,356	59,292,307
Percentage of Retail Sales	87.6	4.7	--	7.7	100.0
Revenue from Retail Sales (thousand 1996 \$) ^e	3,714,713	264,297	--	558,635	4,537,646
Percentage of Revenue	81.9	5.8	--	12.3	100.0
1991					
Number of Utilities	5	21	--	15	41
Number of Retail Customers	1,406,740	134,820	--	322,385	1,863,945
Retail Sales (MWh)	56,442,013	3,223,928	--	5,038,358	64,704,299
Percentage of Retail Sales	87.2	5.0	--	7.8	100.0
Revenue from Retail Sales (thousand 1996 \$) ^e	3,626,141	243,180	--	451,095	4,320,415
Percentage of Revenue	83.9	5.6	--	10.4	100.0
1996					
Number of Utilities	5	22	--	14	41
Number of Retail Customers	1,495,585	148,824	--	317,989	1,962,398
Retail Sales (MWh)	65,650,374	3,746,145	--	5,872,576	75,269,095
Percentage of Retail Sales	87.2	5.0	--	7.8	100.0
Revenue from Retail Sales (thousand 1996 \$) ^e	3,877,930	249,156	--	441,540	4,568,626
Percentage of Revenue	84.9	5.5	--	9.7	100.0

-- = Not applicable.