

## JANUARY 2005 TOPIC

# LOUISIANA ELECTRIC POWER GENERATION AND DISTRIBUTION IN LOUISIANA: UPDATE, JUNE 2004

By  
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The Technology Assessment Division (TAD) of the Department of Natural Resources (DNR) has updated its compilation of corporate electric power generation and distribution data in the state. This material is available in a publication which includes a listing of cogeneration facilities also. In subsequent reports scheduled for 2004, TAD will address in more detail issues that are arising from the stalled deregulation initiative that followed enactment of the Energy Policy Act of 1992 (EPA92), as well as any subsequent legislation or regulation that may ensue. By the end of June 2004, new energy legislation had stalled in the Congress of the United States. The issues become more complex the longer they remain unaddressed.

It would be an understatement to say that the electric power generation sector of the economy is suffering “convulsions” from the restructuring initiative unleashed by EPA92. Independent power producers (IPPs) and cogeneration of electric power by industrial firms, both for internal process plant use and for the sale of excess power into the market, has grown rapidly since EPA92.

### The Importance of Electricity to the Nation...

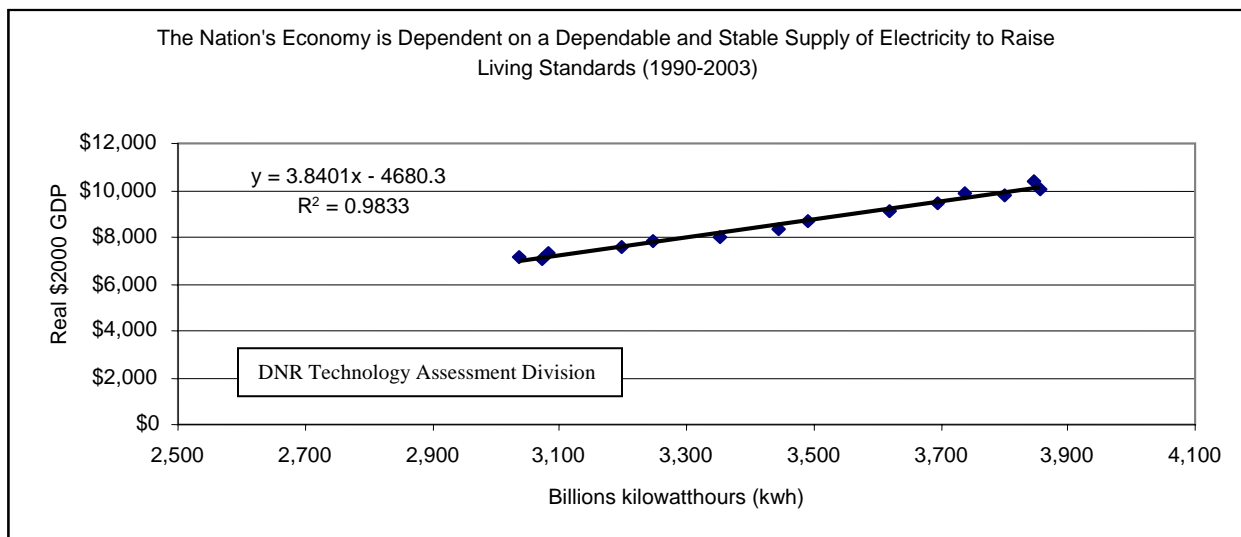


Figure 1

But now the volatility of natural gas prices, and the apparent uncertainty of domestic natural gas supply, has driven many industrial plants, particularly those utilizing natural gas in their processes, out of business here in the U.S. and toward relocation overseas where natural gas supply and labor is less costly. With so much electric power generation dependent on natural gas supply to IPPs and cogen facilities, both in Louisiana and nationally, the dependability of electric

power generation becomes a legitimate public policy issue for the consuming public. Planning and financing of coal and nuclear fired power generation, to replace natural gas as a source of power generation, requires many years of preparation.

**...and to the State of Louisiana**

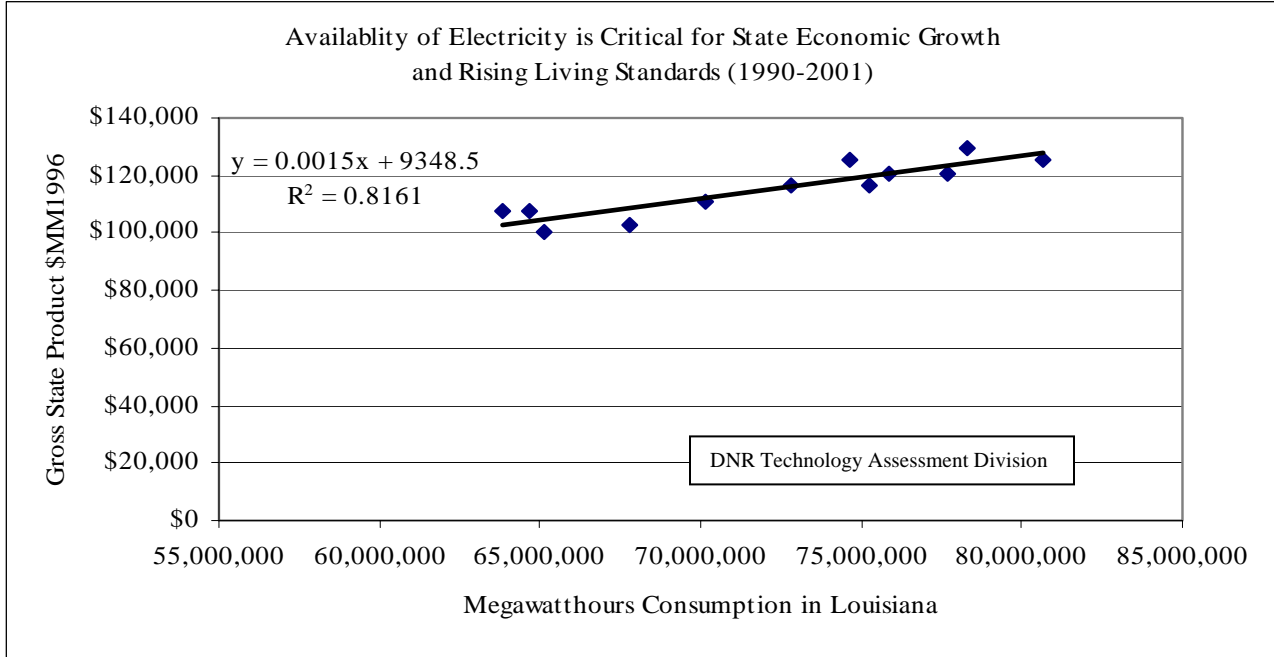


Figure 2

**Schematic of Electric Power Generation & Distribution in Louisiana**

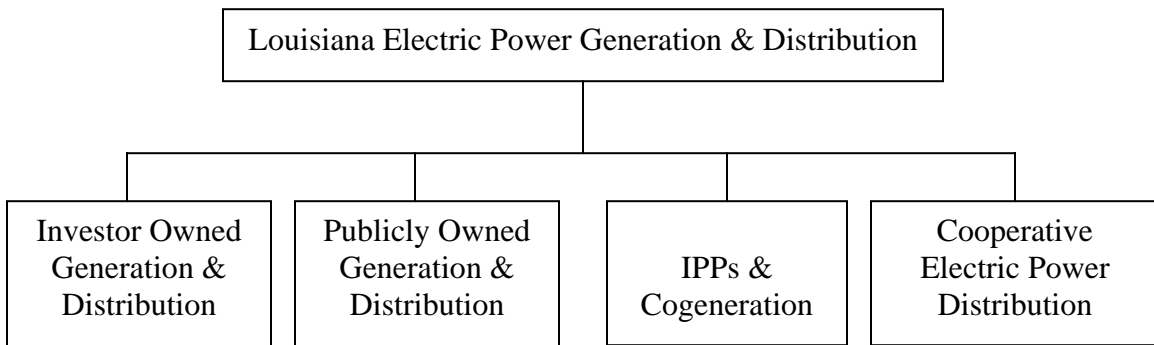


Figure 3

Investor owned utilities continue to dominate the Louisiana market place with nearly 75% of the customers, 85% of power sales, and 55% of the electric power generation facilities.

Table 1  
**Summary of Market Share between Types of Distribution and Generation Organizations (2002)**

<b>Distribution &amp; Generation</b>					<b>Distribution &amp; Generation %</b>			
	<b>Number of Consumers</b>	<b>Revenue (\$000's)</b>	<b>Sales (000 kwh)</b>	<b>Generating Capacity MW</b>	<b>Number of Consumers</b>	<b>Revenue</b>	<b>Sales</b>	<b>Generating Capacity</b>
Investor-Owned	1,598,991	\$4,000,861	67,844,289	14,134.8	75.75%	84.29%	85.60%	55.16%
Cooperative	359,391	\$477,054	7,233,854	0.0	17.03%	10.05%	9.13%	0.00%
Publicly Owned	152,386	\$268,485	4,182,846	822.0	7.22%	5.66%	5.28%	3.21%
IPPs, Cogen	0	0	0	10,667.6	0	0	0	41.63%
2002 Totals	2,110,768	\$4,746,400	79,260,989	25,624.4	100.00%	100.00%	100.00%	100.00%

Source: EIA

Table 2  
**Summary of the Generating Capacity of Electricity by Fuel Sources**

		<b>1993</b>	<b>1997</b>	<b>2002</b>	<b>Annual Growth Rate 1993-2002 %</b>	<b>1993</b>	<b>% Share 1997</b>	<b>2002</b>
	Coal	3,343	3,453	1,723	-7.1	17.00%	16.90%	6.70%
	Petroleum	16	16	16	0.0	10.00%	10.00%	10.00%
	Natural Gas	1,811	1,910	1,735	-0.5	9.20%	9.40%	6.80%
	Dual Fired	9,709	9,689	8,689	-1.2	49.50%	47.50%	33.90%
	Nuclear	2,006	2,011	2,071	0.4	10.20%	9.90%	8.10%
<b>Total Electric Utilities</b>		16,885	17,079	14,233	-1.9	86.00%	83.70%	55.50%
	Coal	8	8	1,730	81.8	0.00%	0.00%	6.70%
	Petroleum	0	6	46	NM	0.00%	0.00%	0.20%
	Natural Gas	1,652	2,285	8,724	20.3	8.40%	11.20%	34.00%
	Other Gases	10	27	62	22.7	0.10%	0.10%	0.20%
	Dual Fired	378	290	451	2.0	1.90%	1.40%	1.80%
	Hydroelectric	182	182	192	0.6	0.90%	0.90%	0.70%
	Other Renewables	487	517	170	-11.0	2.50%	2.50%	0.70%
	Other	21	21	24	1.6	0.10%	0.10%	0.10%
<b>Total IPPs &amp; Combined Heat &amp; Power</b>		2,739	3,337	11,399	17.2	14.00%	16.30%	44.50%
	Coal	3,351	3,461	3,453	0.3	17.10%	17.00%	13.50%
	Petroleum	16	22	62	16.2	0.10%	0.10%	0.20%
	Natural Gas	3,463	4,195	10,458	13.1	17.60%	20.50%	40.80%
	Other Gases	10	27	62	22.7	0.10%	0.10%	0.20%
	Dual Fired	10,087	9,980	9,140	-1.1	51.40%	48.90%	35.70%
	Nuclear	2,006	2,011	2,071	0.4	10.20%	9.90%	8.10%
	Hydroelectric	182	182	192	0.6	0.90%	0.90%	0.70%
	Other Renewables	487	517	170	-11.0	2.50%	2.50%	0.70%
	Other	21	21	24	1.6	0.10%	0.10%	0.10%
<b>Total Electric Industry</b>		19,624	20,416	25,633	3.0	100.00%	100.00%	100.00%

Source: EIA Electric Power Data Base Files

## Generation of Electric Power

In the aggregate, 50% of Louisiana's electric power generation relies on natural gas as its fuel source. Nearly 23% comes from coal fired generation; and nearly 18% from nuclear power.

Table 3  
Electric Power Generation in Louisiana, 1993-1997-2002 (MWHs)

		<u>1993</u>	<u>1997</u>	<u>2002</u>	<u>Annual Growth Rate 1993-2002 %</u>	<u>1993</u>	<u>% Share 1997</u>	<u>2002</u>
	Coal	19,365,873	20,952,995	12,258,694	-5.0	24.50%	25.30%	12.90%
	Petroleum	1,837,844	645,547	68,460	-30.6	2.30%	0.80%	0.10%
	Natural Gas	23,750,752	26,010,452	25,085,994	0.6	30.10%	31.40%	26.40%
	Other Gases	0	0	203,484	NM	0.00%	0.00%	0.20%
	Nuclear	14,398,103	13,511,008	17,305,328	2.1	18.20%	16.30%	18.20%
<b>Total Electric Utilities</b>		59,352,572	61,120,002	54,921,960	-0.9	75.20%	73.80%	57.80%
	Coal	45,855	54,126	9,792,212	81.5	0.10%	0.10%	10.30%
	Petroleum	1,649,723	1,640,597	1,796,076	0.9	2.10%	2.00%	1.90%
	Natural Gas	12,604,472	14,566,110	22,814,854	6.8	16.00%	17.60%	24.00%
	Other Gases	700,587	1,088,279	1,294,140	7.1	0.90%	1.30%	1.40%
	Hydroelectric	1,231,946	1,035,961	891,441	-3.5	1.60%	1.30%	0.90%
	Other Renewables	2,674,066	3,138,770	2,862,791	0.8	3.40%	3.80%	3.00%
	Other	716,315	177,799	597,490	-2.0	0.90%	0.20%	0.60%
<b>Total IPPs &amp; Combined Heat &amp; Power</b>		19,622,964	21,701,640	40,049,003	8.2	24.80%	26.20%	42.30%
		<u>1993</u>	<u>1997</u>	<u>2002</u>	<u>%</u>	<u>1993</u>	<u>1997</u>	<u>2002</u>
	Coal	19,411,728	21,007,121	22,050,906	1.4	24.60%	25.40%	23.20%
	Petroleum	3,487,567	2,286,144	1,864,536	-6.7	4.40%	2.80%	2.00%
	Natural Gas	36,355,224	40,576,562	47,900,848	3.1	46.00%	49.00%	50.40%
	Other Gases	700,587	1,088,279	1,497,624	8.8	0.90%	1.30%	1.60%
	Nuclear	14,398,103	13,511,008	17,305,328	2.1	18.20%	16.30%	18.20%
	Hydroelectric	1,231,946	1,035,961	891,441	-3.5	1.60%	1.30%	0.90%
	Other Renewables	2,674,066	3,138,770	2,862,791	0.8	3.40%	3.80%	3.00%
	Other	716,315	177,799	597,490	-2.0	0.90%	0.20%	0.60%
<b>Total Electric Industry</b>		78,975,536	82,821,642	94,970,963	2.1	100.00%	100.00%	100.00%

Source: EIA Electric Power Data Base Files