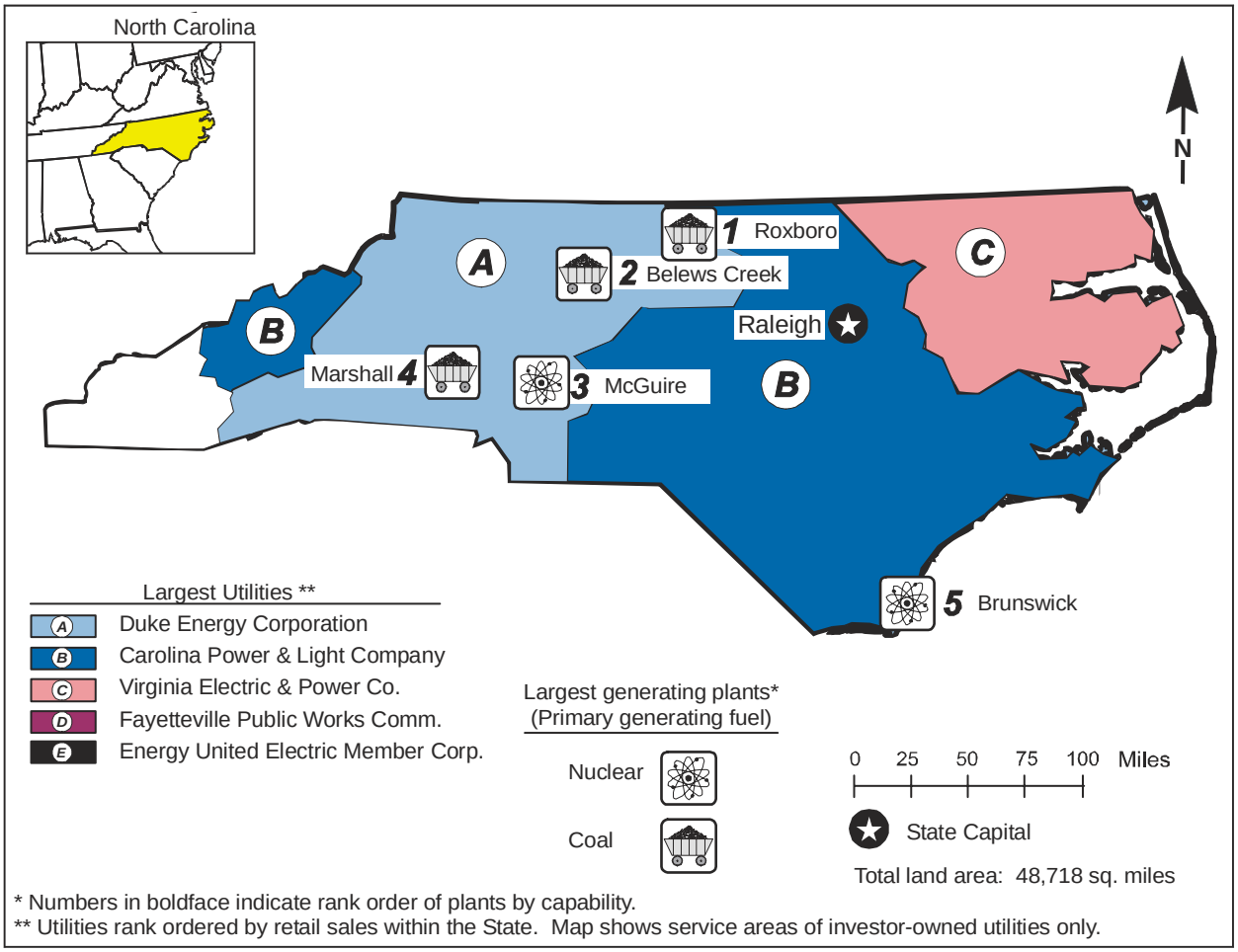
North Carolina



* Numbers in boldface indicate rank order of plants by capability.
** Utilities rank ordered by retail sales within the State. Map shows service areas of investor-owned utilities only.

Table 1. 1999 Summary Statistics

Item	Value	U.S. Rank
NERC Region(s)		SERC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	22,962	11
Utility	21,182	10
Nonutility	1,781	16
Net Generation (megawatthours)	117,587,666	11
Utility	109,882,388	10
Nonutility	7,705,278	15
Emissions (thousand short tons)		
Sulfur Dioxide	429	11
Nitrogen Oxide	193	14
Carbon Dioxide	72,936	12
Sulfur Dioxide/sq. mile	9	14
Nitrogen Oxide/sq. mile	4	19
Carbon Dioxide/sq. mile	1,497	16
Electricity Consumption (MWh) (excludes line losses)	118,691,057	8
Utility Retail Electricity Sales (megawatthours)	115,015,125	7
Nonutility Retail Sales and Direct Use (megawatthours)	3,675,932	12
Utility Average Retail Price (cents/kWh)	6.44	21

Table 2. Ten Largest Plants by Generating Capability, 1999

Plant	Primary Energy Source(s)	Operating Company	Net Summer Capability (MW)
1. Roxboro	Petroleum, Coal	Carolina Power & Light Co	2,477
2. Belews Creek	Petroleum, Coal	Duke Power Co	2,240
3. McGuire	Nuclear	Duke Power Co	2,200
4. Marshall	Petroleum, Coal	Duke Power Co	2,090
5. Brunswick	Nuclear	Carolina Power & Light Co	1,631
6. Lincoln Combustion	Petroleum, Gas	Duke Power Co	1,200
7. G G Allen	Petroleum, Coal	Duke Power Co	1,140
8. Harris	Nuclear	Carolina Power & Light Co	860
9. Cliffside	Petroleum, Coal	Duke Power Co	760
10. Mayo	Petroleum, Coal	Carolina Power & Light Co	745

Table 3. Five Largest Utilities by Retail Sales within the State, 1999
(Megawatthours)

Utility	Total	Residential	Commercial	Industrial	Other
A. Duke Energy Corporation	52,008,959	16,725,041	17,250,810	17,802,736	230,372
B. Carolina Power & Light Company	33,310,362	11,419,147	9,511,406	11,117,208	1,262,601
C. Virginia Electric & Power Co	3,175,734	1,207,444	652,798	1,188,761	126,731
D. Fayetteville Public Works Comm	1,972,971	787,412	686,717	427,157	71,685
E. EnergyUnited Elec Member Corp	1,617,473	1,154,481	324,460	107,154	31,378
Total	92,085,499	31,293,525	28,426,191	30,643,016	1,722,767
Percentage of Utility Sales	80	72	81	90	81

Table 4. Electric Power Industry Generating Capability by Primary Energy Source, 1990, 1994, and 1999
(Megawatts)

Plant Type	1990	1994	1999	Average Annual Rate of Growth (Percent)	Percentage Share 1990	Percentage Share 1994	Percentage Share 1999
Total Utility	20,190	19,767	21,182	0.5	94.5	92.0	92.2
Coal	12,500	12,438	12,440	-0.1	58.5	57.9	54.2
Petroleum	760	804	791	0.4	3.6	3.7	3.4
Gas	270	286	1,676	22.5	1.3	1.3	7.3
Nuclear	4,698	4,639	4,691	0.0	22.0	21.6	20.4
Hydroelectric	1,962	1,600	1,584	-2.3	9.2	7.4	6.9
Total Nonutility	1,179	1,720	1,781	4.7	5.5	8.0	7.8
Coal	618	830	917	4.5	2.9	3.9	4.0
Petroleum	7	18	46	23.5	0.0	0.1	0.2
Gas	W	W	180	W	W	W	0.8
Petroleum/Gas Combined	187	142	33	-17.4	0.9	0.7	0.1
Hydroelectric	W	W	366	W	W	W	1.6
Other	W	W	239	W	W	W	1.0
Total Industry	21,370	21,487	22,962	0.8	100.0	100.0	100.0
Coal	13,118	13,268	13,357	0.2	61.4	61.7	58.2
Petroleum	767	821	836	1.0	3.6	3.8	3.6
Gas	W	W	1,856	W	W	W	8.1
Petroleum/Gas Combined	187	142	33	-17.4	0.9	0.7	0.1
Nuclear	4,698	4,639	4,691	0.0	22.0	21.6	20.4
Hydroelectric	W	W	1,950	W	W	W	8.5
Other	358	322	239	-4.4	1.7	1.5	1.0

Figure 1. Industry Generating Capability by Primary Energy Source, 1999

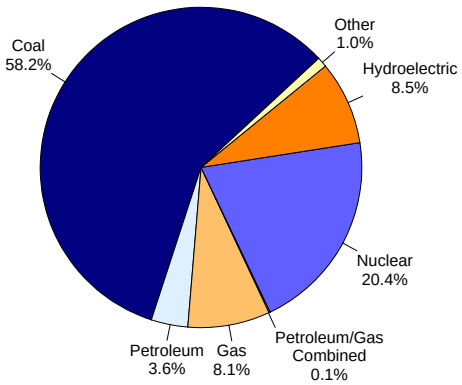


Figure 2. Industry Generation by Energy Source, 1999

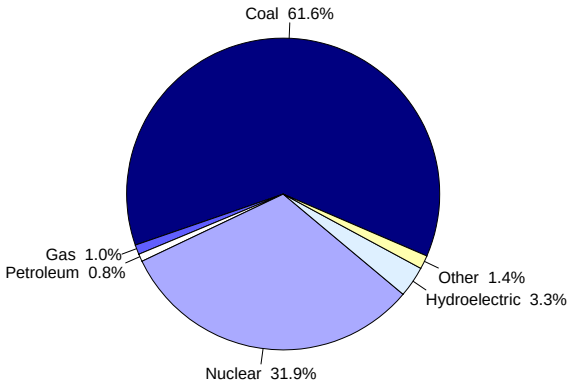


Table 5. Electric Power Industry Generation of Electricity by Energy Source, 1990, 1994, and 1999
(Megawatthours)

Fuel	1990	1994	1999	Average Annual Rate of Change (Percent)	Percentage Share 1990	Percentage Share 1994	Percentage Share 1999
Total Utility	79,845,217	91,454,784	109,882,388	3.6	93.9	90.7	93.4
Coal	46,631,040	53,234,497	68,569,499	4.4	54.8	52.8	58.3
Petroleum	186,899	199,418	284,400	4.8	0.2	0.2	0.2
Gas	165,362	69,076	851,103	20.0	0.2	0.1	0.7
Nuclear	25,905,319	32,346,007	37,523,504	4.2	30.5	32.1	31.9
Hydroelectric	6,956,597	5,605,786	2,653,882	-10.2	8.2	5.6	2.3
Total Nonutility	5,182,210	9,386,707	7,705,278	4.5	6.1	9.3	6.6
Coal	3,224,049	4,901,279	3,847,582	2.0	3.8	4.9	3.3
Petroleum	148,076	248,233	654,464	18.0	0.2	0.2	0.6
Gas	86,579	245,549	315,840	15.5	0.1	0.2	0.3
Hydroelectric	W	W	1,205,701	W	W	W	1.0
Other	W	W	1,681,692	W	W	W	1.4
Total Industry	85,027,427	100,841,491	117,587,666	3.7	100.0	100.0	100.0
Coal	49,855,089	58,135,776	72,417,081	4.2	58.6	57.7	61.6
Petroleum	334,975	447,651	938,864	12.1	0.4	0.4	0.8
Gas	251,941	314,625	1,166,943	18.6	0.3	0.3	1.0
Nuclear	25,905,319	32,346,007	37,523,504	4.2	30.5	32.1	31.9
Hydroelectric	W	W	3,859,583	W	W	W	3.3
Other	W	W	1,681,692	W	W	W	1.4

Table 6. Utility Delivered Fuel Costs and Quality for Coal, Petroleum, and Gas, 1990, 1994, and 1999

Fuel	1990	1994	1999	Average Annual Rate of Change (Percent)
Coal (cents per million Btu)	215.7	183.6	143.8	-4.4
Average heat value (Btu per pound)	12,544	12,416	12,450	-0.1
Average sulfur Content(percent)	1.0	0.9	0.8	-1.3
Petroleum (cents per million Btu)	620.7	419.0	398.4	-4.8
Average heat value (Btu per gallon)	138,230	138,239	138,171	0.0
Gas (cents per million Btu)	0.0	355.5	283.3	0.0
Average heat value (Btu per cubic foot)	0	1,038	1,031	0.0

Table 7. Electric Power Industry Emissions Estimates by Fuel, 1990, 1994, and 1999
(Thousand Short Tons)

Emission Type	1990	1994	1999	Average Annual Rate of Change (Percent)
Sulfur Dioxide				
Coal	328	362	429	3.0
Petroleum	*	*	*	-1.1
Other	0	*	0	0.0
Total	328	362	429	3.0
Nitrogen Oxide				
Coal	166	200	189	1.5
Petroleum	*	1	1	23.1
Gas	*	*	1	17.6
Other	0	2	1	0.0
Total	166	204	193	1.7
Carbon Dioxide				
Coal	46,050	57,283	71,141	4.9
Petroleum	186	644	867	18.6
Gas	146	99	794	20.7
Other	0	137	134	0.0
Total	46,382	58,163	72,936	5.2

Figure 3. Industry Generation of Electricity by Energy Source, 1990-1999

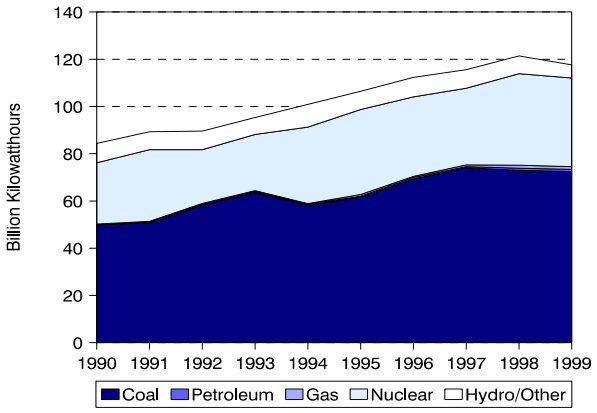


Figure 4. Utility Delivered Fuel Costs for Coal, Petroleum, and Gas, 1990-1999 (1999 Dollars)

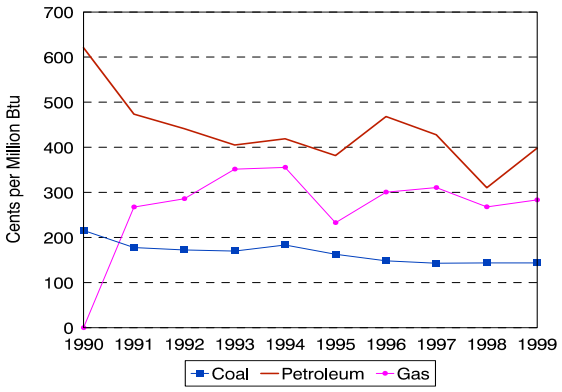


Figure 5. Estimated Sulfur Dioxide Emissions, 1990-1999

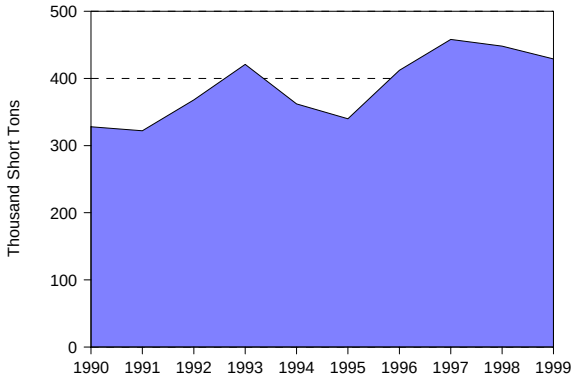


Figure 6. Estimated Nitrogen Oxide Emissions, 1990-1999

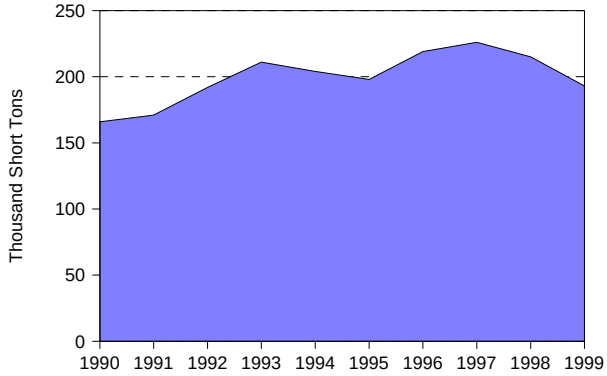


Figure 7. Estimated Carbon Dioxide Emissions, 1990-1999

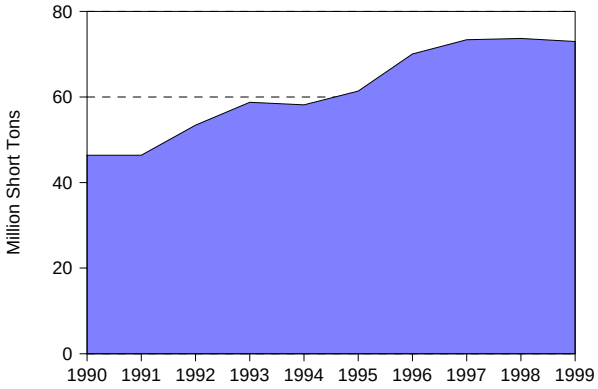


Figure 8. Nuclear Power Capacity Factor Comparison, 1990-1999

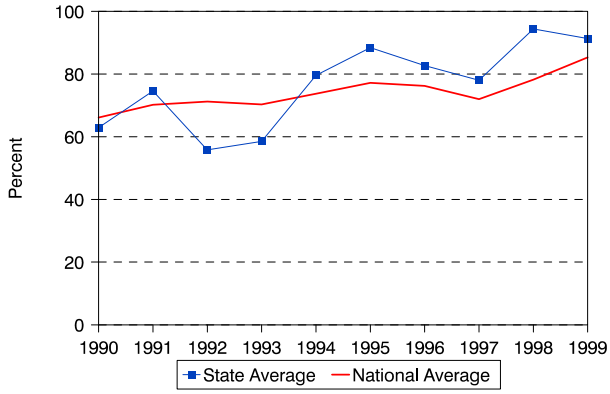


Table 8. Utility Retail Sales, Revenue, and Average Revenue per Kilowatthour by Sector, 1990, 1994, and 1999

	1990	1994	1999	Average Annual Rate of Change (Percent)	Percentage Share 1990	Percentage Share 1994	Percentage Share 1999
Utility Retail Sales							
(thousand megawatthours)							
Residential	33,144	37,207	43,648	3.1	36.9	37.3	37.9
Commercial	23,835	27,458	35,069	4.4	26.5	27.5	30.5
Industrial	31,265	33,307	34,165	1	34.8	33.4	29.7
Other	1,681	1,817	2,133	2.7	1.9	1.8	1.8
Total	89,924	99,789	115,015	2.8	100	100	100
Retail Sales Revenue							
(million 1999 dollars)							
Residential	3,148	3,318	3,486	1.1	45.3	46	47
Commercial	1,854	1,966	2,221	2	26.7	27.3	30
Industrial	1,807	1,792	1,560	-1.6	26	24.8	21
Other	143	137	144	0.1	2	1.9	1.9
Total	6,951	7,214	7,412	0.7	100	100	100
Average Revenue per Kilowatthour							
(cents/kWh) (1999 dollars)							
Residential	9.5	8.92	7.99	NA	NA	NA	NA
Commercial	7.78	7.16	6.33	NA	NA	NA	NA
Industrial	5.78	5.38	4.57	NA	NA	NA	NA
Other	8.48	7.54	6.74	NA	NA	NA	NA
Total	7.73	7.23	6.44	NA	NA	NA	NA

Table 9. Utility Retail Sales, Revenue, and Number of Customers by Type of Utility, 1999

Item	Investor-Owned	Public	Federal	Cooperative	Total
Number of Utilities	3	72	1	31	107
Number of Retail Customers	2,691,092	508,239	4	806,768	4,006,103
Retail Sales (thousand megawatthours)	88,495	13,941	6	12,572	115,015
Percentage of Retail Sales	76.9	12.1	0.0	10.9	100.0
Revenue from Retail Sales (million dollars)	5,325	1,077	0	1,009	7,412
Percentage of Revenue	71.9	14.5	0.0	13.6	100.0
Average Revenue per Kilowatthour (cents/kWh)	6.02	7.72	4.06	8.03	6.44