High gasoline prices and California’s electricity shortages have focused attention on electricity generation and energy conservation. Throughout the current expansion, U.S. energy consumption has increased, although improved conservation and energy efficiency efforts have slowed its growth rate. Ohio’s energy consumption patterns follow U.S. trends, but at a slower rate. During the recessions of 1981–82 and 1990–91, energy consumption in Ohio slowed considerably, presumably because of the state’s heavy manufacturing base.

U.S. electricity generation and consumption are seasonal: Plants adjust their production schedules to follow peaks and troughs in demand. Electricity demand peaks in the summer and drops to its lowest levels in March and April. One might expect excess electricity supply to be greatest when demand is weakest; however, the excess is greatest when demand is strongest.

The seasonal nature of electricity generation and consumption is also reflected in the reporting of states’ generation capacities. Although California has three times the population of Ohio, Ohio’s utilities are capable of generating more electricity year-round. Like California, Ohio is a net importer of electricity, mainly because its utilities are not allowed to export electricity to other states. Deregulation, which will be complete in 2006, will allow out-of-state sales of electricity.

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Each Fourth District state depends on coal as its primary energy source for generating electricity. Electricity prices among the District’s states varied widely in 1997, with Kentucky posting the third-lowest price of any U.S. state, and Pennsylvania—with prices approaching California’s—ranking in the highest quartile.

California’s energy situation is unlikely to occur elsewhere. States’ deregulation strategies vary, and California’s mix of energy sources is unusual: It generates less than 1% of its electricity from coal (the U.S. average is 57%). California is one of only six states where hydroelectric power is the primary source of energy for generating electricity.

Ohio, on the other hand, generates almost 90% of its electricity from coal. Two nuclear plants, Davis Besse and Perry, are located in the northern part of the state. Most of Ohio’s electricity plants are located near large metropolitan areas and along the Ohio River valley, where coal mining predominates. The state’s natural gas production is centered in the southwest, between Dayton and Cincinnati.

The pace of energy demand growth in all sectors is expected to slow in 2001, although forecasted growth for 2002 differs among sectors. While industrial energy consumption growth is expected to remain roughly the same in 2002, commercial electricity demand is expected to accelerate. Growth in residential energy consumption is expected to fall roughly 50% from 2001 to 2002.