G-7 Sectoral Analysis

*The purpose of this section is to provide information on structural differences among G-7 countries which help explain: 1) differences in energy consumption patterns within the G-7; and 2) changes in those patterns since 1970. To this end, the section will examine energy use patterns and trends in the major economic sectors (**industrial, transportation, and residential/commercial, including services**); as well as in **electricity generation**.*[6]

Key findings of this section include:

- ✓ **The G-7 countries differ in their sectoral shares of national energy consumption.** The U.S. transportation sector, for instance, accounted in 1990 for 28 percent of U.S. energy consumption; in contrast, Japan's transportation sector accounted for only about 18 percent of Japan's energy use.

- ✓ **G-7 sectoral shares have changed over time.** Between 1970 and 1990, for instance, the transportation sector significantly increased its share of G-7 energy consumption, especially in Europe. During the same period, residential/commercial's share also increased throughout the G-7, particularly in Japan, while industry's share of total energy consumption declined throughout the G-7.

- ✓ **The G-7 countries differ in their energy use patterns within sectors.** In Canada and the United States, for instance, energy-intensive industries (such as paper and pulp, primary metals, and petroleum refining) in 1990 accounted for around 60 percent (or more) of total industrial energy consumption. In other G-7 countries, energy-intensive industries were relatively less important, and appear to have declined since 1970.

- ✓ **The G-7 countries differ in their lifestyles and living standards.** The average American, for instance, has a relatively larger home and more cars compared to citizens of other G-7 countries. Throughout the G-7, living standards (as measured by vehicles per person, appliance ownership, etc.) increased significantly between 1970 and the early 1990's.

- ✓ **The G-7 countries differ in their retail energy prices, primarily due to differences in their tax regimes.** Gasoline prices, for instance, ranged in 1992 from $3.89 per gallon in Italy to $1.13 per gallon in the United States. Average fleet efficiencies tend to be higher in those countries with higher gasoline prices.