It seems curious to be in the nation's energy capital discussing energy contingency planning while gasoline prices are falling and supplies are plentiful. Although we may feel secure today, it is instructive to recall the security that we felt before the 1973-1974 gasoline crisis and the events that followed. It is also useful to recognize that the Middle East, which continues to be important in the world energy supply picture, is by no means stable. It is not difficult to imagine a set of circumstances that could again interfere with energy supplies in the United States. Because of this uncertainty, and because our urban areas are so economically dependent on personal mobility, effective energy contingency planning is critical.

AMERICAN URBAN AREAS TODAY

There is a tendency to think of American urban areas as they were before World War II. If energy contingency planning is to be effective, urban areas must be viewed as they are now not as they were previously. Specifically, urban land use and travel patterns have changed drastically with dispersion and reduced densities being the rule.

Urban areas have become far less densely populated. This is the result of many factors, including post-war housing programs, inexpensive energy, the construction of highways, and tax policies that encouraged home ownership. In 1950 the urban areas of the United States contained approximately 70,000,000 people and covered an area slightly larger than the state of Vermont (12,800 square miles). In 1980 the urban area population had risen to about 140,000,000, whereas the square miles covered by these urban areas exceeded the area of New York state (52,000 square miles).

Despite the popular misconception, this dispersion is not best exemplified by the western cities in which it began, such as Los Angeles. The suburban developments that border Los Angeles are far more dense than those of the older eastern cities, so much so that if current trends continue, the Los Angeles urban area will become the most densely populated urban area in the nation by 1980 (it currently trails New York by about 300 persons per square mile). The situation was well illustrated during the 1979 energy crisis; it was revealed that per capita gasoline use was higher in suburban Long Island and in the Washington, D.C. area than in the Los Angeles area.

These sparse residential patterns have been accompanied by a decrease in jobs and industry in the central cities. Although there has been substantial development in downtown areas, the trend of the last 30 years has been toward suburban work locations. Urban work trip patterns are no longer radially oriented to central business districts (CBD) and industrial areas, but often are cross-suburbs, urban core-to-suburbs, or through the urban core. Because of the dispersion in work locations, there is no longer the great concentration of destinations that existed before urban sprawl occurred. The newer low- and medium-density employment locations have insufficient employment densities to justify usable levels of transit service; often they have just enough density to create traffic problems.

Transit service and transit markets remain strong to the extent that they are directed to the CBD. These markets are often so strong that there is insufficient room for all the patrons that would wish to ride public transit.

All of this is to say that the city is a complex place in which we cannot expect a single solution to suffice in a future energy crisis. Transit service alone in its present form cannot be expected to fill the void. Where transit markets are strong, unused capacity is limited. Where destinations are insufficiently concentrated, such as in suburban employment locations, transit of the variety appropriate for dense urban corridors is simply not an effective solution. If energy contingency planning is to be realistic, it must be recognized that the contribution of transit, though important, is limited, and that a vast array of strategies is necessary to retain urban mobility in a future energy emergency.

PREVIOUS ENERGY EMERGENCIES

Government allocation programs were used to lessen the impact of the fuel shortage during the energy emergencies of 1973-1974 and 1979. It is generally believed that those allocation policies were ineffective and even contributed to the supply problems. In 1979 there was an unmistakable trend of fuel surplus and fuel shortage throughout the nation. The most serious problems were experienced in the Los Angeles area and in the large urban centers of the Northeast Corridor. In many other parts of the country there was no shortage at all. The fuel shortage was so severe in Los Angeles that fewer than five gas stations were open on one weekend. There was a persistent belief in Los Angeles that government was a cause rather than a part of the solution. It is hard to imagine that a free-market approach for gasoline could have been more disruptive.

IMPLIED FOR ENERGY CONTINGENCY PLANNING

What does all of this mean to energy contingency planning in urban areas? A number of important principles should be remembered:

1. There are no simple answers—American urban areas are quite complex and meeting their needs
any energy emergency will require multiple strategies.

2. Public transit lacks additional capacity in areas where it can be effective, and where it has capacity it cannot be effectively used for the majority of suburban trips. There are limits to the reliability of transit during an energy emergency.

3. Existing resources must be used to the fullest in energy contingency planning, eliminating the need for additional public expenditures.

During this 3-day conference we will examine the progress of energy contingency planning since the 1979 energy emergency. Of particular importance is the examination of the implications of the free-market approach, now national policy, in addressing energy contingency planning.