Before workshop participants focused on strategies for calm and order, they discussed a hypothetical situation that would exist if an energy emergency occurred. The following assumptions were made:

- A substantial petroleum shortfall exists (at least as severe as the one caused by the 1973-1974 Arab oil embargo, but perhaps worse).
- A free-market environment exists with no price controls and no allocation regulations.
- Gasoline prices increase within a matter of weeks to the market clearing level, so that no lines would exist at gasoline stations.

All participants agreed, however, that there would be lines at gasoline stations at the beginning of the shortfall and that panic and confusion would again exist. Based on the price elasticities described by Dorfman (1), the price of gasoline would at least double and possibly triple, depending on the severity of the shortfall. (If a 15 to 25 percent shortfall occurred, the price of gasoline would rise to between $3 and $5 per gallon.)

Based on the foregoing assumptions, the following effects would be experienced:

- There would be no lines at gasoline stations except where the free-market distribution system failed.
- Gasoline stations would maintain their normal hours of operation.
- Those who could afford to pay the price could purchase all the gasoline they needed.
- Those who could not afford to pay the increased price would substantially reduce their demand and seek other options for travel.
- There would be a substantial loss in consumer purchasing power, a reduction in the gross national product (GNP), and serious economic disruptions.
- Providers of essential public services (e.g., police, fire, and transit) would face severe budget problems.

The following strategies are essential, based on the preceding discussion:

1. **Provide accurate, credible, and timely information before, at the onset, and during an energy emergency.** This is probably the most important action that must be taken to maintain calm and order. In order to provide such information it is necessary that:
   - The federal government be prepared to provide necessary information to the states concerning the national and international situation,
   - State government be prepared to disseminate national and international information and have up-to-date information on the state and adjoining states,
   - Local government be prepared to work with state agencies and the private sector to use the information and provide updates of local situations,
   - The private sector be prepared to cooperate with state and local agencies, and
   - The media obtain and accurately disseminate information at hand and dispel false rumors.

The reason for the preceding strategies is to communicate with the public as quickly as possible at the onset of an energy emergency. This will require that the media also participate in the planning process early and that there be a single source of information. The type of information to be made available by appropriate levels of government includes:

- The degree of the petroleum shortfall, its causes, its likely duration, and any other information to ensure that the nature of the situation and the problems to be faced are known.
- The expected impacts on available fuel supply, anticipated prices, anticipated economic impacts, and government actions that will be taken. The actions include: tax rebate plans or other economic actions taken to offset economic disruptions; use of the Strategic Petroleum Reserve (SPR) and how this will affect the situation; availability and use of a state set-aside (if a state has established such a program); and impacts of other government actions.
- A description of the government actions and assistance to be provided to individuals and organizations to cope with the shortfall and price increases (item 3).

2. **Pre-shortfall actions must take place.** If an energy emergency occurs, there will be relatively
little time to plan a course of action. Thus, it would be wise to develop a contingency plan, even if it is simply placed on a shelf for now. However, whether or not a contingency plan is available, the following actions should take place before the onset of an energy emergency:

- Establish the necessary communication links between federal, state, and local agencies; the private sector, including suppliers, employers, and so forth; the utilities; public service agencies; the media; and all other individuals and organizations that must be involved in providing accurate, credible, and timely information.
- Establish state and local procedures for distributing and dealing with additional resources that might become available as a means of offsetting severe economic impacts, for example, block grants and tax rebates.
- Establish state procedures for dealing with supply "cushioning actions that might be available, such as the use of the SPR and state set-aside.
- Indicate examples of energy-efficient travel by promoting and implementing programs for ridesharing and transit enhancement.
- Indicate economic impact analysis to determine the kinds of new problems that will exist and consequently the kinds of new responses and strategies that will be necessary.

3. Actions should be taken at the beginning of and during a shortfall. The coping measures that will be appropriate are not new or startling but they are important. They include:

- The many transit, paratransit, and ridesharing actions that are available.
- Complementary actions, such as staggered work hours and other actions that may be necessary to offset the overwhelming demand for transit.
- Implementation of supply cushioning actions such as use of SPR, state set-aside, and so forth.
- Implementation of economic measures, such as tax rebates, block grants, and so forth.

There are other actions that can also be considered to show that "government is doing something." These might include the use of odd-even gasoline purchase plans, for example. However, in the environment of the free market, with no price and allocation controls, it will not be appropriate to impose measures to reduce demand (which was the response in 1973-1974 and 1979 as a way of reducing lines at gasoline stations). Although lines may form in the early stages of the shortfall, prices will rise fast enough to quickly eliminate those lines, but other severe economic impacts will ensue.

It is interesting to speculate about the political environment that might exist under the assumptions presented. The possibility exists that a Congress and a President could decide to reimpose price controls and allocation regulations. This could create other problems; thus, it is in the interest of state and local governments to examine several scenarios in a preplanning phase.

CONCLUSIONS

Little work is currently underway at the federal, state, or local levels of government to prepare transportation contingency strategies. Because of funding cutbacks, much of the governmental expertise that had been developing is being lost. The continuing work within transportation planning agencies had tended not to involve implementation agencies, so the current level of preparedness in the field is lower than it was in 1979. During the 1979 crisis the nation was almost totally unprepared. Many strategies were considered and some were adopted that were actually counterproductive; it was only because the shortfall was slight and did not last long that serious problems were avoided.

If no prior preparations have been made, the only responses available to states are a limited number of transportation coping measures. If a state makes significant advance preparations for coping measures or quick implementation measures during a petroleum shortfall, or initiates substantial conservation measures (a situation that currently exists nowhere in the United States), serious hardships could be prevented under a significant petroleum shortfall.

Preplanning and implementation of coping measures would have benefits that far outweigh the modest costs involved. But, it must be recognized that the damage to the economy and to social stability caused by a significant shortfall in petroleum goes far beyond the potential for mitigation offered by quickly implementable coping measures.

From the perspective of a state government, it is important to consider the range of possible problems that might occur and the implementation environments that might be established by world situations and federal actions beyond state control. In this regard, it is necessary for the state to (a) develop the capacity to monitor the economy of the state, (b) develop adequate capability to predict the responses of the state economy to significant petroleum price increases, (c) determine the problems that might occur in a petroleum shortfall, and (d) determine the impact on governmental operations and tax revenues. Those types of analyses are necessary in order to develop strategies to deal with the problems that could emerge.

This type of serious planning is currently not occurring at the state level, but it is difficult to see how states can make significant headway in contingency planning without much stronger activity at the federal level. Based on the discussions in the workshop, it is recommended that:

- States should be encouraged to develop coping measures and implement coping and conservation strategies that are capable of expansion in emergencies.
- States should be encouraged to do more fundamental economic and governmental contingency planning, focusing on the economic consequences of fuel disruptions.
- The federal government should work with the states to devise appropriate strategies to deal with the possibilities of petroleum shortfalls and make the implementation preparations necessary to make effective strategies feasible, so firms might consider implementing to mitigate these problems.

REFERENCE