Local Experience

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I will discuss the experiences of several local governments in implementing energy contingency plans. After the 1973-1974 Arab oil embargo there was a flurry of activity in energy contingency planning at the local level. For example, within 5 years after the embargo energy contingency plans were developed by the following:

1. Dallas-Fort Worth Council of Governments;
2. City of Waco, Texas;
3. Metropolitan Transit Commission (MTC), Minneapolis-St. Paul;
4. Southern California Rapid Transit District (SCTRD);
5. Easy Ride (the rideshare portion of the Peninsula Transportation District Commission), Hampton, Virginia;
6. Mass Transit Administration (MTA), Baltimore;
7. Metropolitan Transportation Commission (MTC), San Francisco;
8. Metropolitan Washington Council of Governments;
9. Metropolitan Transit Authority (MTA), Nashville;
10. Tri-County Metro District (Tri-Met), Portland; and
11. Regional Transportation District (RTD), Denver.

These plans were developed by a variety of agencies--from rideshare agencies to transit operators to metropolitan planning organizations (MPOs). Fortunately, for the purpose of this discussion, the United States experienced another energy shortage in 1979 and we were able to see how well these 1974 and 1979 energy contigency plans fared.

Some of the measures suggested in those plans included gasoline sales-related actions (odd-even sales, color flags, etc.), various rideshare programs, and accelerated vanpool and carpool programs. Changes in work hours were also suggested to alleviate the crush on transit, to facilitate better carpooling, or to reduce the number of work-related trips. The 4-day workweek is an example of this last concept.

There were suggestions, particularly from transit operators, designed to put more buses into service. This would be accomplished by activating reserve fleets, accelerating maintenance (perhaps accomplished overnight), and postponing preventive maintenance. Other ideas included using taxicabs and school buses, providing telephone hotlines to give consumers information on gasoline sales, and decentralizing transit information dissemination. Some agencies disseminated transit information through newspaper ads. There were also proposals to have individuals within local governments serve as information coordinators.

How successful were all of these measures? Frankly, most of them either did not work or were not really important. Some, however, did work; for example, the gasoline station odd-even sales program and the color flags used to indicate the availability of gasoline were important and certainly helped to alleviate some of the lines at service stations.

Ridesharing programs did not do well. This is surprising because ridesharing appears to be one of the more flexible and responsive activities. In a sense it was successful because many people carpooled, but as far as formal carpool programs were concerned, it took 3 or 4 weeks or longer to develop the computer match lists and contact the people who called in, therefore it really did not work well. During the 3- or 4-week period, people found other means to get to work; most formed their own carpools.

I am unaware of any work-hour programs implemented during the 1979 energy shortage. These programs require major changes in employers' operations and, for this reason, they were perhaps doomed to failure from the start.

There were some successes in activating reserve bus fleets. I am uncertain, but I believe either Seattle Metro (Washington) or Tri-Met (Portland, Oregon) was able to put more buses on the road. They seemed to be limited only by the size of the reserve fleet. Other operators were limited in trying to train people to drive the buses. They did not have the drivers on the payroll; in some cases, retired drivers were hired to drive the buses.

I am unaware of any place where taxicabs were used. School buses were tried in a couple of places, and my impression is that it was more trouble than it was worth. Dade County (Florida) used school buses and paid ridiculous rates for insurance (on the order of $1,000 or $2,000 a day per bus) to carry 20 people.

Telephone hotlines announcing the availability of gasoline appeared to be useful. Prince George's County (Maryland) established an Operation Oasis to provide consumers with information on the gasoline stations that were open. Los Angeles County handled 4,000 calls per day on the availability of gasoline during the 1979 crisis. In Texas Gulf Oil published maps to show which stations in the Dallas-Fort Worth area would be open and on which days during the weekends. These kinds of activities were helpful. However, the problem that a government agency encounters in trying to provide telephone hotlines is that the agency has to collect the information from the individual service stations, which may or may not be willing to cooperate.

Decentralization of transit information appeared to be an extremely important strategy, yet I am uncertain about its effectiveness. In Seattle, for example, it was reported that 93 percent of the phone calls to the Seattle transit system were not answered during the 1979 crisis. This means that a transit system's telephone information system, in some instances, may not be relied on to handle requests for information during a fuel shortage. SCRTD placed ads in the newspaper to inform people about transit schedules, and some schedules were placed in the shopping malls in an effort to disseminate transit information.

Changing bus maintenance schedules appeared to be a workable measure; however, it too, was relatively minor. Local energy coordinators served as sources of information; again, however, this was not an important measure.

So what can we conclude? Can we make some general statements about the effectiveness of some of these measures and the effectiveness of contingency planning?

Considering the contingency measures and the actual travel changes that took place, certainly we can conclude that we all lived through the crisis.

We know it is possible to live through a fuel shortage. We learned from the previous crises that people have a great capacity to adapt. Research by Hartgen (1) revealed that people saved energy by driving slower, chaining their trips, and by taking fewer and shorter trips. These actions were taken without outside interference--without government programs.

This adaptation by individuals and by households generated quite a demand for information as people tried to call the transit system, called the ride-share agency, searched for a carpooler at work, sought information about the fuel efficiency of cars, and inquired about the availability of gasoline.

In retrospect, probably the most distinguishing characteristics of past energy shortages is the lack of communication. Information systems were overloaded in terms of the necessary speed and capacity to deal with all the information that was required.

Transit, although sometimes promoted by advocates of the transit industry as being a savior during a fuel shortage, certainly helped but overall it accounted for only 1 or 2 percent of energy savings or patronage.

The transit industry faced tremendous problems during fuel shortages. As transportation professionals we need to deal with the following problems: lack of information, availability of fuel, and increasing capacity on transit systems.

As for planning--it has now been a decade since work began on energy contingency plans--the early plans tended to concentrate too much on defining the problem and identifying potential solutions. They were a little short on some of the management questions that would arise during the implementation phases; for example, How would the measure be accomplished? Who would have the responsibility for implementation? How would the decisions be made? Who would pay? What are the incentives for transportation providers to be involved?

For example, when a transit strike occurred in Houston a few years ago, the city had taxicabs run the bus routes. Eventually these taxicabs, if they found a fare, left the route to serve the fare. The experiment did not work well because the taxicabs had no incentive to continue running the routes.

It should be noted that such efforts are often designed to fail because there are ulterior motives. An analysis by Schueftan (Part III, Session 5 of these proceedings) suggested that some of the energy contingency plans reviewed reflected ulterior motives as did the taxicab experiment in Houston. The taxicab routes in Houston were used to temporarily relieve some of the political heat associated with the transit strike.

Some contingency plans were attempts to develop support for the use of alternative modes of transportation. Also, some plans may have overstated the seriousness of the energy issue in order to gain the attention of policymakers. Energy contingency plans generally did not address the concept that there are different levels of energy shortage. In disaster planning this is formalized to some extent.

If one household runs out of fuel, this is not an energy crisis except for that one household. Local, state, or federal governments do not get involved in a one-household energy shortage.

When an entire city starts running short of fuel, certainly it is a crisis for that city, but it may not be a crisis for the state or the federal government. In 1979 the odd-even gasoline sales were used only in Dallas, Fort Worth, and Houston. Some of the other large cities in Texas wanted to begin odd-even sales so they could be considered major urban areas with big problems, but the state refused to impose contingency measures where they were not needed.

So there were energy shortages that were perhaps a crisis for a few cities but not for the state and certainly not for the federal government. The 1979 crisis is a good example. Gasoline lines started at service stations in California. Considerable time passed before lines were noticed in Texas, and most of the country experienced no shortages.

Looking ahead, I do not believe energy contingency planning should be abandoned. However, it is time to examine the management and implementation issues that are involved. One of the major issues is the flow of information.

If sufficient information is provided to help people decide what is good for them individually and what is good for them collectively, they can make the necessary changes to save energy. They can take the bus if they know the schedule.

I would point to the Houston-Galveston Area Council's recent energy contingency plan as an example of a good approach. The Council does not spend time examining what the shortfall might be or what transit shifts would take place, instead it concentrates on setting up coordinating committees and identifying information that would need to be collected. The plan specifies who would collect the information and how often and to whom it is to be reported. The Mid-America Regional Council also has a plan that tends to stress the flow of information.

Assumptions were made in the past about the existence of allocation or rationing, and, of course, these assumptions may no longer be valid. What this means for energy contingency planning is uncertain.

I am unsure of the nature of the political support for energy contingency planning which is so necessary if a realistic planning effort is to be made. If, for example, a free-market approach is adopted to deal with energy shortages, are the cries for action going to come only from the low-income segment of the community, which is often politically impotent? In such circumstances, there may be no support for planning--no support for government action.

Finally, we can conclude that energy contingency plans must have a local orientation. As we saw in 1979 the entire nation may not have an energy shortage. Shortages will always start in one place; not all of us at once, regardless of where we live, are going to have a gasoline shortage. Shortages are going to start in one locale, and they may even stop in the locale where they started. Therefore energy contingency planning should take place at the local and the state levels. The only reason that the state should be involved is because of the level of authority required. Energy shortages are primarily local problems, even though our nation's energy supplies and demands, of course, take on a national character. My recommendation is that energy contingency planning should continue but with a local orientation.

REFERENCE

1. D.T. Hartgen. Changes in Travel in Response to the 1979 Energy Crisis. Prelim. Res. Rept. 170, Planning Research Unit, New York State Department of Transportation, Albany, Dec. 1979.