June 15, 1981

I thought that you might be interested in a recent internal draft by the Department of Energy on Contingency Planning.
The staff draft plan has been under preparation since May 1980. Much of the material contained in that attached draft was prepared under the direction of the prior Administration. The basic analytic framework, choice of assumptions, econometric modeling techniques and, most significantly, the conclusions and recommendations have not been reviewed or approved by senior officials of the present Administration. Thus, the draft plan does not represent the views or policies of Secretary Edwards.

The document is pre-decisional in character and may be exempt from mandatory disclosure under the Freedom of Information Act. Release to the Subcommittee in response to your request does not constitute any waiver of this Department's authority to withhold this document pursuant to the Act.

We therefore request that the Subcommittee respect the confidential character of this document.

Sincerely,

Barton R. House
Acting Administrator
Economic Regulatory Administration
EXECUTIVE SUMMARY

Chapter I: The Disruption Scenario and Its Effects

This Chapter examines four general response strategies for mitigating the effects that are likely to result from the loss of approximately 9 million barrels per day (MMBD) of crude oil on the world market. This hypothetical supply disruption scenario begins January 1, 1981 and ends June 30, 1981 and translates into a 2.2 MMBD shortfall for the United States.

The world price of crude oil was expected to average about $45 per barrel in 1981 and $51 per barrel in 1982. As a consequence of the shortage, (assuming no actions were taken to respond to the disruption) crude prices are projected to climb to $76 and $78 per barrel in 1981 and 1982, respectively.

Gasoline could sell for $2.91 per gallon in 1981, causing a significant reduction in consumption. Distillate prices may rise to $2.65 per gallon. The consumer impacts of these price levels are significant. Gasoline lines should not be a major phenomenon of the disruption if gasoline prices are permitted to reach market-clearing levels, although spot shortages and gasoline lines could appear as the market adjusts. Consumer hardships and adverse economic effects associated with these price levels, however, are significant.
This disruption could lead to a recession. The economic effects would most likely be felt throughout 1981 and 1982. Some of the effects, most noticeably inflation, appear immediately while others lag and appear in 1982.

The Gross National Product (GNP) suffers a steady decline throughout the disruption period. If business as usual (BAU) conditions had remained, GNP would have been expected to climb gradually. With the disruption, GNP gradually declines until reaching its low point of approximately 7 percent below the BAU level in the second year. If this GNP decline were to occur, it would represent the greatest change experienced over any four quarters in the last 30 years.

The unemployment rate is shown to climb as a result of the disruption. BAU unemployment was projected to be approximately 7.6 percent in 1981 and 7.3 percent in 1982.

Those rates likely will climb to about 8.3 percent and 9.7 percent in the two years if no action is taken to respond to the shortage. Unemployment will be concentrated in the most energy intensive industries: auto, transportation, food and construction. Those industries are primarily located in the industrial Mid-East and North East.
Shifts in real income from domestic consumers of petroleum products to producers, both foreign and domestic, occur under these economic conditions.

These income shifts force decreases in aggregate demand and therefore real output. Real output is aggravated further by spot shortages of petroleum in certain regions and/or certain industries. Reductions in output and real income, whether caused by physical shortages or increased prices, create the unemployment and the high inflation levels cited above.

**Chapter II: Alternative Response Strategies**

Chapter II defines the objectives of government responses to the oil supply interruption, summarizes the basic response actions available to the government and describes four possible response strategies which use different combinations of the available response actions.

The selected objectives of a government response to the disruption are:

- assure adequate petroleum supplies for activities essential for national security, health and safety.
- minimize macroeconomic impacts of the disruption and the government's response, including inflation, GNP loss and unemployment.
minimize transfer of wealth from oil consumers to producers, reducing hardships for the poor and minimizing disparities in access to petroleum supplies

prevent a permanent loss of competition in the oil industry.

Four alternative response strategies were identified for evaluation. The four strategies use different combinations of response actions to show four substantially different approaches and results. The four strategies are:

- Rely primarily on the market to bring supply and demand into balance through higher prices;

- Accelerate market forces by imposing an oil import tariff early to dampen demand quickly;

- Delay the full price increase by controlling domestic prices and allocating supplies; and

- Focus on using alternative sources of supply to offset much of the loss, and rely on the market to maintain equilibrium between supply and demand.
Alternative Strategy 1: Free Market Response

This strategy places the burden of responding to the shortfall on the market.

Price increases will equilibrate demand with the new level of supply, and price will allocate supplies among purchasers. The Federal role is restricted to facilitating the workings of the market by providing information, increasing supplies from government reserves, and reducing taxes to recycle the increased revenues from the Windfall Profit Tax. Except for diverting SPR fill to current consumption, the entire supply loss is offset by price-induced reductions in demand or increases in supply.

The principal characteristics of this response environment would be a large increase in oil prices as supplies reach their low point, a high rate of inflation, significant financial hardships for lower income individuals, but no gasoline lines.

Alternative Strategy 2: Impose a Tariff to Accelerate Price Increase

This strategy is similar to Alternative 1 except that a tariff would be imposed on oil imports by all IEA countries in the early days of the embargo. The primary purpose of
the tariff would be to quickly reduce demand on the world oil market to try to minimize the amount of permanent increase in world oil prices. The tariff also would capture a portion of the windfall which otherwise would go to foreign producers, which could then be recycled to the U.S. economy through income tax deductions and increased block grants to States.

The principal characteristics of this response environment would be an earlier increase in product prices than under Alternative 1, ultimately somewhat lower permanent world oil prices, a high rate of inflation, significant hardships for low income individuals, no gasoline lines, and a larger tax reduction. This strategy requires no significant Federal administrative effort, with the tariff collection and tax reduction being administered largely with existing systems.

**Alternative Strategy 3: Impose Price Controls to Delay Price Increases**

Under this strategy, the government would freeze domestic crude oil prices, and profit margins on refining and product distribution, to slow down the price increase required to bring supply and demand into balance. Because domestic crude oil prices and profit margins on products would be frozen, product prices would rise only as imported oil
prices and non-product costs increased. This would delay
the imposition of market clearing prices. Because price
would not be allowed to allocate supplies, an administrative
allocation system would be implemented to allocate supplies
to bulk purchasers. Because of the infeasibility of
implementing a rationing system for those users who are
not bulk purchasers, motorists and other small users would
wait in line for supplies if demand exceeded supply.

The government would direct the States to attempt to reduce
demand for oil by mandatory demand restraint programs, such
as enforcing a lower speed limit. The complexities of such
demand restraint programs and the difficulties of enforcement
could result in inadequate reduction in demand from these
actions to offset the supply loss. The government also would
implement a number of actions to administratively increase
supplies, including diverting SPR fill, mandating a limited
amount of private stock drawdown, providing tax incentives
for increased domestic oil production, providing environmental waivers and ordering switching to other fuels.

This strategy is essentially the same as used in the past
two interruptions, except for changes in the price control
and allocation systems to try to reduce the distribution
inequities. For example, bulk purchasers receiving an
allocation could be allowed to resell their allocation at
uncontrolled prices, in order to provide incentives to
the users to conserve and to permit a quick redistribution of excess supplies to users who are willing to pay the highest prices.

Alternative Strategy 4: Supply Enhancement and Market Response

The objective of this strategy would be to increase oil supplies, primarily by assuring a drawdown of oil industry stocks, to substantially offset the disruption loss. The stock drawdown would be a coordinated effort by IEA countries to reduce demand on the world oil market and prevent a significant permanent increase in world oil prices.

The market would be allowed to function normally to balance supply and demand. If supplies were not increased enough to offset the loss, prices would increase to reduce demand.

Under this strategy the government would not interfere with the use of petroleum supplies by consumers, but would provide incentives (or orders) to increase private oil production and oil stock use, and remove regulatory requirements or restrictions which result in greater use of oil or prevent increased supplies.
If successful, this response environment would be characterized by only a small oil price increase, relatively little financial hardship, no gasoline lines or other disruptions in oil use, and minimum long-term adverse economic impacts. If the supply disruption were to last longer than six months, stock drawdown and the other supply actions would not be able to offset the loss, oil prices would rise to reduce demand, and adverse economic impacts would increase. The primary Federal intervention in private decisionmaking would occur if oil firms were ordered to draw down stocks. This could be avoided by providing a significant tax credit for each barrel of stock used during the declared supply emergency. (This would require new legislation.)
Chapter III: Comparison of the Four Strategies

A. Assure Adequate Petroleum for Essential Activities

The adequacy of petroleum supplies for essential activities varies under different strategies. Under strategies 1 and 2 access to petroleum would depend on the willingness and the ability to pay the high price. States would use bloc grant rebates to assist hardship cases (i.e., use tariff receipts). This study shows the most disturbing dislocations occur under strategy 3 after price controls are lifted. There is little or no problem of adequacy under Alternative 4, if stock drawdown is successful.

B. Minimize Macroeconomic Impacts

Inflation would be worst under Alternative 1, although it could be as high or higher under Alternative 2 if the tariff is set at a high level. Inflation would be less under Alternative 3 and least under Alternative 4 if stock drawdown is successful.

GNP and employment losses would ultimately be most severe under Alternative 3, with greater long-term problems than under the other strategies. Alternative 2 would be preferable to Alternative 1, if the tariff were imposed by all IEA members and if the producing nations did not offset the effects of the tariff. Alternative 4 would result in the least adverse impacts, if successfully implemented.
C. Minimize Inequities Among Economic Classes and Geographic Regions

Alternative 3 is likely to cause the greatest inequities because of maldistribution of supplies under allocation, inequities caused by mandatory conservation and fuel switching, and the large transfer of wealth (after price controls are removed). Alternative 1 would be the next least effective in achieving this objective because of the large transfer of wealth from low income individuals with little offsetting financial assistance. Alternative 2 might be somewhat better than Alternative 1 because of potentially lower long-term prices and possible financial assistance to the poor through the states. Alternative 4 would achieve this objective most effectively if stock drawdown is successful. If stock drawdown is unsuccessful, the inequities could approach those of Alternative 1.

Alternatives 1, 2 and 4 all have the advantage of avoiding inequities caused by poor supply distribution, or inequities due to mandatory conservation and fuel switching. Alternative 4, however, could cause inequities among oil firms if stock drawdown orders were issued.

D. Prevent a Loss of Competition in the Oil Industry

Only Alternative 3 could be fully effective here. Alternatives 2 and 4 could reduce potential problems to the extent they are successful in holding world spot market prices lower than under Alternative 1.
E. Administrative Feasibility

Alternative 1 clearly is the most feasible to implement because there is very little to do. Alternative 2 would be easy to implement if IEA nations would agree; if they do not agree this is not an attractive option. Alternative 4 would be easy to implement if Congress would authorize a tax incentive to firms to draw down stocks and increase oil production during disruptions, but it would also be necessary to obtain cooperation from other IEA nations. Alternative 4 might be difficult if stock drawdown orders were to be used.

Alternative 3 would be the most difficult to put into effect, requiring complex regulations and a large staff to administer the several programs, including price controls, crude and product allocation, mandatory conservation and mandatory fuel switching.
The estimated economic impacts of the four strategies, compared with no action, are shown below.

<table>
<thead>
<tr>
<th></th>
<th>World Oil Price ($/BBL)</th>
<th>Gasoline Price ($/GAL)</th>
<th>Disel oil Price ($/GAL)</th>
<th>GNP (TRILLION $)</th>
<th>CPU ($)</th>
<th>Unemployment ($)</th>
<th>Income Group</th>
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<tr>
<td>BAU</td>
<td>45</td>
<td>1.62</td>
<td>1.36</td>
<td>1.43</td>
<td>7.6</td>
<td>1,178</td>
<td>$5,000-9,999</td>
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<tr>
<td>Disruption</td>
<td>76</td>
<td>2.88</td>
<td>2.62</td>
<td>1.38</td>
<td>20.9</td>
<td>2,269</td>
<td>$10,000-14,999</td>
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<td>2.44</td>
<td>2.05</td>
<td>1.38</td>
<td>20.1</td>
<td>1,775</td>
<td>$15,000-34,999</td>
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<tr>
<td>Alt. Strategy 2</td>
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<td>2.43</td>
<td>2.06</td>
<td>1.39</td>
<td>20.3</td>
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<tr>
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<td>1.43</td>
<td>12.2</td>
<td>1,338</td>
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* Amount of dollars required to maintain same level of consumption as in 1978.
Chapter IV: Managing the Emergency

The management of the Nation's response to an energy emergency will involve an intricate process of information collection, interpretation and dissemination; a decision process which evaluates information and capabilities and selects courses of action; and a process for the systematic development and implementation of specific response action plans. For efficient execution of these processes, a management structure that clearly defines responsibilities and lines of authority is needed. The activation of key components of this structure must be one of the early steps taken upon recognition of a possible emergency. It is the management structure which provides the essential framework within which ordered and responsive emergency actions can be taken.

The managing of the emergency must therefore be a dynamic and flexible process that promotes responsive decisions on the basis of available information and modifications to decisions as the situation develops.

Under such circumstances, the effectiveness of response management will be determined largely by the rapidity of mobilization and the skill and expertise of the management structure and by the availability of well thought-out
preplanned strategy options which contain specific response measures whose capabilities, limitations and costs are known or readily determined. The pre-planned alternative response strategies likely will not precisely fit the situation at hand; however, the mere process of planning and analysis that goes into the preparation of these strategies will have caused an examination of most of the generic types of emergency response issues that could arise, regardless of specific emergency circumstances. It will also have lead to the development of a general body of knowledge on emergency response programs that will facilitate informed and responsive tailoring of strategies to the situation at hand.

Emergency response measures that are considered to have potential current applicability and feasibility of implementation within reasonable time and resource limitations have been developed and documented in the form of "action plans," the summaries of which are contained in Appendix A to this plan. These action plans form the basic building blocks for the overall emergency response strategies encompassed by this plan, particularly strategy 3. It should be emphasized that many of these response measures require substantial preimplementation planning and resource commitments if they are to be in a state of readiness for a future emergency. Preimplementation requirements will be discussed in greater detail in Chapter IV.
To allow logical decisions to be made as to which "actions" to incorporate into the overall emergency response, the action plans contain the following critical elements:

- Capabilities assessments (these will require periodic updating to maintain plan currency).
- Legal requirements.
- Resource requirements (include manpower, dollars and data requirements).
- Implementation steps to include timing estimates (includes preimplementation, startup and operational activities).
- Implementation responsibilities.

The action plans are to serve the dual purpose of providing accurate cost-benefit information for the strategy decision-making process and providing coordinated schemes of implementation for those offices involved in the execution of the measures, once selected. A listing of the actions and the strategies that they are associated with are in Chapter II of the plan. The general merits and effectiveness assessment of each of the strategies are discussed in Chapter II and III.