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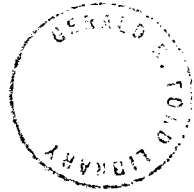
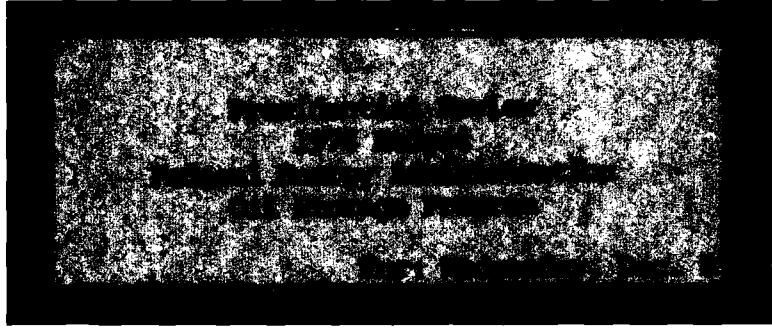
The President

1978
Pres.
Review

FEA
Petroleum
Storage



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President's Review
FY 1978 Budget

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TAB A

1978 Budget Summary
Federal Energy Administration
Strategic Petroleum Storage Program

	<u>(\$ in millions)</u>		<u>Full-time Permanent Employment</u>
	<u>Budget Authority</u>	<u>Outlays</u>	
1976 actual	313	6	85
<u>1977:</u>			
Agency request	448	323	150
OMB recommendation	448	323	150
<u>1978:</u>			
Planning target	--	1,097 ^{1/}	--
Agency request	1,930	1,912	206
OMB recommendation	<u>1,827</u>	<u>998</u>	<u>150</u>
Change	- 103	- 914	- 56
<u>1979:</u>			
Agency request	1,262	1,708	--
OMB recommendation	<u>560</u>	<u>1,412</u>	<u>150</u>
Change	- 702	- 296	--



^{1/} Planning target assumed industrial storage provisions were implemented. This reduced target by \$431 million to amount shown above. Planning target with no industrial storage would have been \$1,528 million.

TAB B

Issue Paper
Federal Energy Administration
1978 Budget

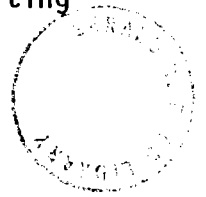
Overview: Strategic Petroleum Storage Program

Background

- ° The Energy Policy and Conservation Act (EPCA):
 - Requires FEA to complete an Early Storage Reserve (ESR) of 150 million barrels of petroleum by December 1978.
 - Requires FEA to submit a Strategic Petroleum Reserve Plan (SPR) to Congress by December 15, 1976 showing how 500 million barrels (MMB) will be stored by December 1982. The EPCA authorizes FEA to propose expansion of the SPR up to 1 billion barrels. The SPR quantity and timeframe is flexible but changes involving a smaller or larger quantity and/or a slower schedule must be proposed and justified to Congress.
 - Authorizes FEA to require importers and refiners to provide up to 180 MMB of petroleum for the ESR/SPR at no cost to the USG.
 - Requires FEA to insure that regional needs can be met by the storage plan.
- ° Last Spring, the Administration transmitted to Congress an ESR plan designed to attempt to meet the ESR requirement of 150 MMB by December 1978 within a reasonable cost. For 1976/1977 a total of \$871 million in funds were requested by the Administration for 240 MMB capacity in facilities and 50 MMB of oil. The Congress appropriated \$300 million for 240 MMB in facilities but reduced the FEA request for petroleum from \$550 million (50 MMB) to \$440 million (40 MMB).

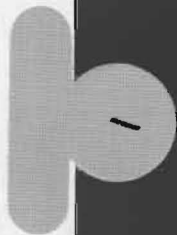


- ° The following issues require decision in order to complete the SPR plan and the budget request for FY 1978 and FY 1979 for the petroleum storage program:
 - Issue 1: What quantity of petroleum should be stored in the SPR?
 - Issue 2: How much should we budget in FY 1978 for petroleum for the ESR?
 - Issue 3: How much should we budget in FY 1978 and FY 1979 for petroleum and storage facilities for SPR?
 - Issue 4: Should refiners and importers be required to store petroleum at no cost to USG?
 - Issue 5: Should petroleum be stored in the Northeast and Hawaii?
- ° FEA has proposed the following for each issue:
 - Plan to complete a 500 MMB system by December 1982 at an estimated cost of \$8.7 billion paid for primarily by the USG; complete a further study of the size issue during FY 1977.
 - Request \$1,470 million in FY 1978 to purchase 110 MMB of crude to complete the ESR by December 1978.
 - Request \$437 million for 260 MMB of facilities for the SPR in FY 1978. Request \$1,242 million to purchase 92 MMB of crude oil for SPR in FY 1979.
 - Do not require importers or refiners to store petroleum, but establish a monitoring system for private sector inventories at the refiner/importer level.
 - Do not store petroleum in the Northeast. Plan to meet regional requirements by transporting crude from central Gulf Coast salt dome storage. Defer decision on noncontiguous area storage (Hawaii).
- ° OMB agrees with the following aspects of FEA request:
 - 500 million barrels is the appropriate size for the program (see Issue #1).
 - Budget authority to purchase 110 million barrels of crude should be requested in FY 1978. (See Issue #2.)



- Importers and refiners should not be required to store petroleum at this time. (See Issue #4.)
- Storage need not be located in the Northeast. (See Issue #5.)
- ° OMB differs with FEA's request as follows:
 - No commitment (formal or informal) should be made to going beyond the 500 million barrel size. FEA has not formally indicated going beyond 500 MMB; however, there are informal indications that expansion is under consideration.
 - OMB agrees that budget authority needed to purchase crude for the ESR should be requested in FY 1978. However, based on the unanticipated implementation delays experienced by the program to date and the work needed to acquire and convert existing caverns into an existing storage system, OMB recommends that outlays from this budget authority be estimated at this time on a more conservative basis than FEA recommends. If FEA is in fact able to implement the program as it hopes will be possible, OMB agrees that the agency should do so and the outlays may then be revised upward. (See Issue #2.)
 - OMB recommends that \$390 million for 260 MMB, rather than \$437 million, be requested for SPR storage facilities. FEA agrees that various possibilities exist to reduce facility costs. (See Issue #3A.)
 - OMB recommends that a funding authorization of up to \$5.4 billion for crude purchases for the SPR, should be proposed. However, OMB recommends that in FY 1979 a \$540 million appropriation to purchase about 40 million barrels of crude for the SPR (beyond the 150 in the ESR) be requested rather than \$1242 million to purchase 92 million barrels proposed by FEA. The difference is based on OMB's belief that FEA's schedule is overly optimistic and will not be met. (See Issue #3B on petroleum for the SPR.)





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Issue Paper
 Federal Energy Administration
 1978 Budget

Issue #1: Quantity of Petroleum to be Stored in the SPR

Trends in world & U.S. production/imports/dependence

- ° U.S. dependence on imported crude through 1985 is likely to be in the 40%-50% (7-10 MMB/D) range or up a few percent from today's levels. Alaskan oil will increase total U.S. production to meet growing demand in the late seventies and early eighties holding imports at about today's levels. By 1985 imports will start to increase as U.S. production starts an inevitable decline unless:
 - real prices of petroleum increase substantially,
 - major new domestic fields are discovered,
 - technological breakthroughs are achieved and implemented.
- ° Free world industrialized nations are far more dependent on imported petroleum than the U.S., e.g., imports are 16% of total annual U.S. energy consumption, for Japan imports are 74%. Free world industrialized economies are intertwined with the U.S. economy. Their dependence is our dependence and vice versa and this fact must be addressed in preparing for possible supply interruptions (embargoes).
- ° Arab OPEC members produce about 40% of current free world oil consumption. This share is expected to decline somewhat in the late seventies and early eighties, but rise again to about the 40% level by 1985, with continued increases thereafter. This implies that for the next ten years or so, trends in total free world dependence on Arab oil are at about today's level. For the U.S. alone, however, some increase may occur between now and 1985 because demand will increase at a faster rate than total U.S. production.

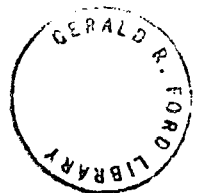
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	Millions of Barrels per Day		OPEC/Free world consumption (Percent)
	Free World Consumption	OPEC Production	
1973	46	18	39
1976	45	18	40
1980	52	15-20	29-33
1985 Optimistic	61	22	36
1985 Pessimistic	63	25	40



How Vulnerable is the U.S. and its Allies?

- ° In general terms, continued reliance by the U.S. and the rest of the free world on imports from OPEC-controlled markets exposes oil-consuming nations to two major areas of vulnerability:
 - High oil prices, imposing burdensome but probably bearable costs.
 - Major supply interruptions (the subject of this paper).
- ° Whether, when, and how a supply interruption (including an embargo) might occur is subject to tremendous uncertainty. Supply interruptions can come from a number of sources:
 - The most likely threat stems from a politically inspired supply cutback by key-producing countries in the Middle East. In the event of an Arab-Israeli conflict, members of the Organization of Arab Exporting Countries (OAPEC) have the ability and, if their vital national interests are threatened, the will to cut production, raise world prices, and "embargo" the West.
 - Other interruptions are possible: Soviet invasion of the Persian Gulf or interdiction of shipping from the area; a change in regime in Saudi Arabia; and a war in the Persian Gulf area between Iran and Saudi Arabia, Iran and Iraq, or Iraq and Saudi Arabia.
- ° No formal National Intelligence Estimate has been prepared on these contingencies by the intelligence agencies, to the best of our knowledge.
 - CIA has completed a brief, informal review of the most likely threat (a temporary OAPEC supply interruption). CIA staff's view is that an embargo is a possibility in the event of an Arab-Israeli war. A 50 percent OAPEC cutback lasting one year as posited by FEA in justifying the storage program is extreme, however. OMB notes that a thorough intelligence review is needed.
- ° In assessing OAPEC's intentions to interrupt supplies, the following should be kept in mind:
 - OPEC members tend to divide into two categories:
 - those that rely heavily on oil export receipts to meet internal needs and have little, if any, spare production capacity. Included in this category are Iran, Venezuela, Nigeria, Indonesia, and Iraq.



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- those that have major current account surpluses and do not need oil export revenues at the levels they are presently occurring. These nations are Arab and tend to have huge reserves and spare production capacity. They include Saudi Arabia, Kuwait, Qatar, and Abu Dhabi.
- OAPEC members with substantial surplus revenues would on a technical and economic basis be able to cut back production substantially. However, these countries offer attractive targets to outside interference. In insolation they are weak and vulnerable. The main deterrent constraining the behavior of these countries is their westward orientation. It is therefore unlikely that they would cut supplies to the West to such an extent that political relationships could not be maintained or subsequently restored. They are unlikely to use the oil weapon unless a direct national interest is involved and then they are unlikely to cut production to a point intolerable to the West.
- Some of the interruptions could involve the U.S. militarily.
 - The Defense Department has expressed concern that military considerations have not figured prominently in planning the size of the reserve.
 - DOD defense needs are currently provided by prepositioned war stocks, 55 million barrels of petroleum products. This is judged sufficient to sustain a 90-day war. After this period, DOD would acquire petroleum from the civilian economy, under the Defense Production Act, including petroleum in FEA's reserve.
 - The Administration's original storage proposal requested authorization to create a 300 million barrel military stockpile of petroleum in addition to a civilian reserve of up to 1 billion barrels. This was included in part to assure authorization of production of the Naval Petroleum Reserves.
 - Any expansion of the Reserve for defense purposes should be justified by DOD after it has examined its military requirements and determined the most cost-effective means to deal with them. At that point any expansion of the reserve for defense purposes should be included in the DOD budget.
- Concluding, the U.S. and its allies are and will continue to be vulnerable to petroleum supply interruptions. The most likely supply interruption consists of a production cutback by key Arab producers provoked by the U.S. during an Arab-Israeli war. In view of the political realities facing the OAPEC members, we believe that:



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- an embargo is a possibility,
- that its size and duration would be designed to create hardship but probably not so severe to threaten the security of the free world countries including those Arab countries which control supplies but are dependent on the West for military security.

Policy options for dealing with an embargo

- o USG-owned storage is one of a number of possible ways to protect the U.S. and its allies should an embargo occur. To assess how much storage may be needed, other options must be considered as well. Others include:

1. petroleum inventories held by the private sector

Presently, about 900 MMB are held by the primary and secondary firms. End-user inventories are unknown but estimated to be in the 300 million barrel range. These inventories are held for normal business purposes. However, a portion (10-20% is a conservative estimate) might be drawn down to cushion a supply interruption.^{1/}

2. use of demand restraint measures (e.g., conservation, allocation and higher prices)

Such measures would require that consumers get by with less fuel and would present political problems if used. Some savings appear possible without causing undue hardship. To date, FEA's limited work in this area has resulted in ways to save 600 MB/D. Beyond that, FEA estimates prices in their embargo scenarios at \$38/bbl. and up, which would induce conservation. If this would occur, demand would drop considerably in countries where price controls were not put into effect.

3. possible surge or increased production from other producers

Currently there are 1-2 million barrels of excess capacity in non-Arab countries (Iran, Nigeria, Venezuela, Indonesia) which expanded production in the 1973-1974 crisis. An additional one million barrel per day capacity exists in Iraq, an Arab country that declined to support the 1973-1974 cutback. For the future, the picture is clouded. A comparison of FEA production estimates

^{1/}FEA has very limited data on the quantity of inventory held by petroleum wholesalers/retailers and no data on end user levels. The available data for refiners and importers (primary level) show that about 290 MMB of crude are held and of this, 100 MMB are assumed by FEA to be a reserve.



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with CIA capacity estimates, imply excess capacity in non-Arab hands of about 4 million barrels per day in 1980. However, capacity estimates are even more conjectural than demand and supply estimates. FEA maintains these capacity estimates are overstated. The effectiveness of the oil weapon is blunted if excess capacity exists.

4. reshuffling of petroleum flows among countries

Arab producers are able to cut production and to monitor and control the delivery of petroleum from their wells. They are not able to control the flow of oil produced in other countries. Consequently, the Arabs can embargo the United States but their embargo is likely to be offset in part by the redirection of oil flows from non-participating countries. This redirection of oil flows occurred in 1973-1974 through the unguided efforts of the oil companies. The companies were responding to price differentials that developed and the conflicting political pressures placed on them by producing and consuming countries. The International Energy Agreement will further support the redirection of oil flows if it is invoked. In addition, the IEA calls for conservation measures by non-embargoed countries which could free up to 1 to 4 million barrels per day.

5. exerting political and other pressures on the embargoing nations

We are not aware of an assessment of what might be done under this option. Some have suggested food embargoes; this is unlikely to work; others might include restrictions on weapon sales, technical assistance, or expropriation of assets owned by embargoing nations and held in the U.S. A detailed study in this area should be completed.

6. use of military force

We are not aware of an assessment of this option.

In sum, USG storage is one of a number of ways to be prepared for an embargo. Only preliminary analyses of certain of the options presented have been completed by FEA. Trade-offs among the options has been given minimal consideration.

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FEA's Rationale for a 500 MMB SPR

- ° FEA has proposed a 500 MMB SPR for now with continuing study in 1977 to determine whether a larger size is appropriate. The basis for their recommendation is as follows:
 - An embargo between now and 1985 is a distinct possibility. OAPEC appears to be the likely instigator but a military initiative by the Soviets should not be ruled out.
 - U.S. imports in 1985 will be in the range of 7-10 MMB/D. About 35 to 60% or 2 to 6 MMB/D of the imports will be from the OAPEC countries. More important from an international point of view, OAPEC will provide 36 to 40% of the world market.
 - FEA believes that a cutback by OAPEC of 25-50% of their production for a period of 6-9 months is feasible and should be used for planning purposes. These amount to cutbacks of from 5.4 to 12.9 MMB per day, or 9 to 20% of world supply. Pressures would exist for prices to rise to the \$38/barrel range and beyond.
 - FEA agrees with the consensus view that the U.S. would be hit with only a part of the supply cutback. For OAPEC embargo scenarios FEA assumes a range of 25-50 percent cutback of total production by OAPEC.
- ° FEA concludes that the U.S. may be faced with a shortfall in imports in the range of 1.7 MMB/D to 4.6 MMB/D, and a cumulative shortfall of 297 MMB to 1,661 MMB. FEA proposes the following measures to deal with the six-month shortfall under high import assumptions.



	Shortfall (each embargo)			
	Daily		Cumulative	
	25%	50%	25%	50%
	<u>2.7</u>	<u>4.6</u>	<u>477</u>	<u>1,150</u>
USG Storage Initial Drawdown date..	1.5	3.3	270	450
Private Storage.....	0.6	0.6	100	100
Demand Restraint 3%.....	.6	.6	108	216
Surge Production.....	-	-	-	-
Shortfall Remaining.....	0	0.1	0	-384
Additional Demand Restraint @ 7% ^{1/} ..	1.4	1.4	252	252

Assuming 500 MMB of storage, the U.S. would be able to survive even the more drastic 50% OAPEC cutback for six months.

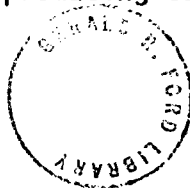
^{1/} FEA notes that more drastic measures such as 7% or 10% reduction through demand restraint measures could be applied.

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Effectiveness of Petroleum Storage

- ° USG storage, when coupled with other measures including demand restraint, private sector storage, international oil reallocation in response to market forces and/or the IEA, appears to be an effective way to minimize the adverse effects of an embargo.
- ° The storage program is designed to:
 - provide assured surge production capacity in the event none exists in the world.
 - make reshuffling of petroleum supplies less necessary. It allows the United States to stay out of world markets in a crisis, thereby indirectly providing petroleum for our allies and reducing tension within the Western alliance.
 - complement existing inventories by enlarging them.
 - reduce or postpone need for demand restraint measures.
- ° In addition, storage may:
 - deter an embargo, by confronting the Arabs with the need to sustain deeper and longer production cuts.
 - reduce domestic pressure for more costly energy investments justified on the basis that they make us independent of imports.
 - cushion the transition to higher energy prices, in the event the Arabs confront us with permanently higher prices rather than with temporary production cutbacks.
- ° Among the unresolved questions on storage are the following:
 - How effectively would the stockpile be used in an emergency?
 - In a confrontation, would the Arabs embargo the U.S. or simply raise prices sharply?
 - Could key Arab producing countries neutralize the storage program by deeper and longer production cuts?

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FEA Cost/Benefit Analysis

- ° FEA has completed cost/benefit analyses for a 375, 500 and 750 MMB storage program. The results in terms of net benefits vary according to embargo assumptions as shown below:

	25% Embargo				50% Embargo			
	6 months		1 year		6 months		1 year	
	Low imports	High imports	Low imports	High imports	Low imports	High imports	Low imports	High imports
Net Benefits (in \$ billions)								
375 MMB	\$1.8	\$6.7	\$10.5	\$16.6	\$9.5	\$18.4	\$15.0	\$25.5
500 MMB	1.2	6.0	10.4	18.5	9.1	21.3	16.3	29.9
750 MMB	0.4	4.9	10.1	20.8	8.8	24.2	18.1	34.2

- ° FEA cost benefit analysis shows:

- Total net benefits for 375, 500, and 750 sizes are about the same for each embargo scenario. The 375 MMB program has the highest cost/benefit ratio and would be the most cost-effective size.

FEA concludes that the cost/benefit analysis: makes a strong case for a 375 million barrel program, supports a 500 million barrel program, and makes it difficult to justify a 750 million barrel program unless there is a significant chance that U.S. imports will be 10 million barrels per day or greater in 1985.

- ° FEA bases its recommendation for the 500 million barrel program on "invulnerability" rather than on the results of the cost benefit analysis. Invulnerability is defined by FEA as the U.S. having the capability to deal with a major embargo 50% level with minimal disruption or threats to its economy and national security.
- ° FEA believes the 500 MMB system makes the U.S. more invulnerable to an embargo because the U.S. would be able to sustain even a 50 percent cutback by OAPEC for up to six months without major disruptions to the economy. FEA believes this makes the U.S. more secure and therefore places more emphasis on security as opposed to economics.



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- OMB notes that key assumptions inherent to FEA's cost/benefit analysis include:
 1. Private sector inventories were not included even though 100 MMB or more probably exists.
 2. Benefits were measured on the basis of GNP losses saved by storage. It was assumed that storage would result in a \$ for \$ GNP savings.
 3. There would be no surge production even though substantial increases in world price of oil would occur.
 4. Demand would continue at pre-embargo levels even though world prices of oil may double.
 5. Storage drawdown will occur in an even-handed manner, not perfectly but at rates to make it last throughout a supply interruption.
 6. OAPEC will cut production immediately rather than the gradual cuts as occurred in 1973-1974.
- OMB views the above FEA assumptions as "optimistic" causing significant overstatement of net benefits of storage.

Statement of Issue

At this time, should a firm commitment be made to develop a 500 MMB USG-owned and financed storage system?

Pros:

- Congress implicitly assumed the size of storage should be 500 MMB since any change to this level has to be justified to Congress.
- The U.S. and its allies are vulnerable to embargoes; storage appears to be an effective measure to provide the nation with continued supplies for a number of months minimizing adverse economic and national security impacts.
- Being prepared to deal with an embargo may deter major oil exporting nations from adopting such a policy.



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Cons:

- The estimated cost of a 500 MMB system is \$9 billion which will place added pressure on the budget increasing deficits.
- 500 MMB may be too large; FEA's cost/benefits overstates net benefits.
- Until more is known about the size of private inventories, potential demand restraint measures, etc., a smaller system may be appropriate.

Alternatives

1. Make a commitment to a USG-owned and financed 500 MMB SPR; propose continued study in 1977 to determine if a larger system is needed. (Agency req.)
2. Make a commitment to a USG-owned 500 MMB SPR; make no commitment to a larger size; complete a study to determine whether industrial storage or some other approach is appropriate to pay for the storage program. (See Issue #4).
3. Make a commitment to a USG-owned 750 MMB SPR.
4. Make a commitment to a USG-owned 375 MMB SPR.

Analysis

Budget Outlays
(\$ millions)

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>Total</u>
Alt. #1 and #2 (500 million barrels)	326	1103	1311	1694	1763	1801	684	8,682
Alt. 3 (750 million barrels)	326	1103	1811	2724	2811	2791	2024	13,590
Alt. 4 (375 million barrels)	326	1103	1078	1270	1322	1350	513	6,962

Difference from Alt. #1

Alt. #3 (750 million barrels)	--	--	500	1030	1048	990	1340	4,908
Alt. #4 (375 million barrels)	--	--	-233	-424	-441	-451	-171	-1,770



OMB's Assessment/Recommendation

- ° Areas where we disagree with FEA assumptions include:
 - FEA's embargo scenario range is in the realm of possibilities but we believe may be too severe at the 50% cutback level. 40% may be a better number but uncertainties are very high. A lower level would reduce anticipated embargo shortfalls and resulting justification for storage of more than 500 MMB.
 - FEA's cost/benefit analysis overstates storage benefits because:
 - it fails to take into account the use of private sector inventories, surge production.
 - it assumes USG storage is distributed as efficiently as normal distribution by private sector.
 - it assumes storage will offset GNP losses \$ for \$. We doubt this since some losses are likely to be attributable to the fear caused by embargoes such as depressed auto sales.
- ° Demand restraint measures may be used to achieve greater savings than 600,000 barrels/day at a lower cost than storage.
- ° Going beyond 500 MMB at this time in our judgment is highly speculative and not warranted because:
 - net benefits are minimal if at all.
 - other measures may be appropriate with little or no cost.
 - implementation of 500 MMB is probably more than FEA can manage effectively until 1980.

President's Decision:



Issue Paper
 Federal Energy Administration
 1978 Budget
 Issue #2: Purchase of Petroleum for the Early Storage Reserve

Background

- The EPCA requires that 150 million barrels of petroleum be stored by December 1978. Assuming there is no industrial storage (Issue #4), the oil must be purchased by FEA. Last Spring, the President decided in favor of making a "best effort" to meet this target.
- Congress has already appropriated \$440 million for FEA's use in FY 1977 to purchase 40 million barrels of crude at the national average price of \$11/barrel.
- FEA proposes to obligate \$1,470.3 million in FY 1978 to purchase the remaining 110 million barrels of crude at the national average price of \$12.72/barrel; use of the national average price (average of price controlled domestic crude and imported crude) was agreed to last Spring.
- Included in the above amount is \$56.0 million for transportation. The agreement reached last Spring did not address transportation costs. FEA now requests that stateside transportation costs be budgeted for in addition to the national average price.
- OMB's assessment of FEA's actual progress to date and proposed schedule is as follows:
 - FEA experienced unanticipated delays this year due to internal reorganization, selection of an Assistant Administrator for the program, shortage of staff, FEA General Counsel reviews, false start on land appraisals, etc.

<u>Sample Milestones</u>	<u>January 1976 Plan</u>	<u>April 1976 Plan</u>	<u>September 1976 Plan</u>
Publish draft program environmental statement ..	2/76	4/76	6/76 (actual)
Publish draft site environmental statements	4/76	4/76	9/76 (actual)
Complete final program environmental statement .	7/76	8/76	11/76
Acquire sites	9/76	12/76	2/77
Begin fill	9/76	3/77	8/77



- Schedule for FY 1977 includes completion of environmental approvals; site appraisal, negotiation, and acquisition; site design; acquisition of permits; ordering and acquisition of material; construction; start of filling. Each of these tasks is a possible source of unanticipated delays. On just one of these tasks (construction of facilities), FEA says:

"Each project may require up to 50 miles of pipeline system, river crossing, hundreds of valves, dozens of pumps, electric motors and diesel engines, pump houses, control stations, a number of tanks, dock facilities, dredging operations, wellheads, miles of casings, electrical supply equipment, metering, controls and instrumentation and numerous other associated equipment and facilities. All of these must be integrated into a properly working, efficient storage facility constructed within extremely narrow time constraints."

- Schedule for FY 1978 has possible source of acceleration: increasing fill rates from 12 million barrels per month (current schedule) to 26 million barrels per month (revised fill schedule). Both fill rate estimates are subject to questions of feasibility.
- FEA is no longer 100 percent confident that schedule can be met but does assign greater than 75 percent chance of storing the required 150 million barrels by December, 1978.
- Independent assessment by the Corps of Engineers indicates the following:
 - Assuming no problems with permits and property acquisition, the chance of meeting deadlines at all sites is about 50%.
 - The chance of storing 100 million barrels by "a relatively small amount" of time after December 1978 is quite good.
 - All of the above assumes timely acquisition of permits and completion of appraisals.
- Corps permits (for pipeline river crossings, dock expansion, dredging, etc.) are required. Key uncertainty is need to prepare additional environmental assessments for permits and possible need to hold public hearings (not incorporated in FEA schedules).



- Among the measures which the Corps recommends to increase the chances of success for the program is the identification of "key milestones and decision dates for intensive management" (not yet done).
- o Regarding use of the national average price for the purchase of oil for storage:
 - FEA notes in its budget request that there may be legal difficulties associated with acquiring oil at the national average price.
 - At FEA's public hearings on industrial storage private sector representatives said they may litigate the issue.
 - Frank Zarb has recently reconfirmed his commitment; however, "to purchase oil for storage at a price which will definitely be no higher than the national composite average and hopefully somewhat lower."
- o Uncertainties which could impact FEA's budget for crude purchase for the program are:

<u>Area of Uncertainty</u>	<u>Budget Impact</u>
- Uncertainty in the national composite price estimate (primarily due to OPEC price and U.S. demand growth uncertainty).	+ \$100 million
- Contrary to FEA's assumption, ocean transportation costs cannot be covered within the composite price and be delivered by foreign flagships.	
-- Transportation cost to U.S. port, no requirement for U.S. flagships.	+ 300 million
-- Requirement for U.S. flagships.	+ 150 million
- Successful legal challenge of FEA's use of national average price.	+ 400 million
- Delay in fill schedule.	
-- Six-month delay: purchase at higher national average price.	+ 70 million

- o Because of the legal requirement and symbolic value, OMB agrees that budget authority needed to purchase 150 million barrels of crude should be requested as FEA proposes. The request, together



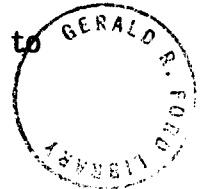
with the amounts appropriated by Congress in FY 1977, would fully fund the Early Storage Program as follows:

	Millions	
	\$	Barrels
FY 1977	440.0	40
FY 1978	1470.0	110
Total	1910.0	150

- ° However, OMB suggests that outlay estimates in the budget be changed from those which the agency suggests. FEA and OMB outlay estimates are as follows:

	FEA		OMB	
	Millions		Millions	
	\$	Barrels	\$	Barrels
FY 1977	50	4	50	4
FY 1978	1484	113	955	74
FY 1979	423	33	952	72
TOTAL	1957	150	1957	150

- ° The OMB estimate is not an outlay ceiling for the program. In the event that FEA is able to fill the reserve as they estimate, the agency would be free to do so.
- ° The OMB option is a more conservative estimate of the pace at which the agency is likely to be able to implement the program. The basis for the reestimate is as follows:
 - Neither OMB nor FEA know how quickly the program can be implemented.
 - Past estimates by the agency have been optimistic. Performance to date indicates the need to provide for unanticipated delays.
 - Indicative of the kind of delays the program is faced with are the following:
 - Site and right-of-way owners may insist on additional appraisals before negotiating with FEA.
 - Public hearings may be necessary before permits needed for on or off site development are granted.



- Contractors may not be able to respond to FEA proposals, proposals may not be adequately reviewed in the 2-3 month time allowed by FEA. Negotiations may break down. Contractors may be unable to recruit needed crews and supervisory personnel.
- Ports and pipelines may not be available. Power may be inadequate.
- Needed material may not be available, delaying construction.
- Oil delivery may be delayed by port congestion, inclement weather, unavailability of barges.
- While it is difficult to predict outcomes, OMB's guess is that at least some of these problems will arise and FEA will miss the December 1978 requirement by 6 to 9 months.
- o The Appropriations Committees cut FEA's FY 1977 crude request from \$550 to \$440 million (50 to 40 million barrels), expressing skepticism that crude could be purchased as quickly as FEA planned. With construction now scheduled to begin April 1 (contingent on environmental studies, appraisals, site acquisition, system design), Congress may again question feasibility of FEA's request.

Statement of Subissue A: Assuming no industrial storage, at what level should the Administration budget for crude oil for the early storage reserve?

Alternatives

1. Provide amount estimated as required by FEA to allow purchase of 150 million barrels at the national average price. (Agency req.)
2. Provide budget authority as requested by FEA but show more conservative outlay estimates in the budget. (OMB rec.)

Analysis

Budget Authority/Outlays
(\$ in millions)



Strategic Petroleum Reserve/Crude

	1977		1978		1979	
	BA	O	BA	O	BA	O
Alt. #1 (Agency request)	440	50	1470	1484	--	423
Alt. #2 (OMB recommendation)	440	50	1470	955	--	952

Difference from Alt. #1 (Agency request)	<u>1978 Outlays</u>	<u>1979 Outlays</u>
Alt. #2	-529	+529

Alternative 1. Provide amounts estimated by FEA for both budget authority and outlays. (Agency req.)

Pros:

- Agency will maintain request is consistent with EPCA requirement, the President's policy and best available information on the implementation schedule.
- Indicates unwaivering support for the program and confidence in its schedule.

Cons:

- Best available information on the schedule indicates outlays may not be possible at rate estimated by FEA.
- Unwaivering confidence in schedule is not warranted. FEA admits they have only a 75 percent chance of meeting it.
- Could subject Administration to charges of deceiving Congress (or itself) if schedule is substantially delayed.

Alternative 2. Provide budget authority as requested by FEA but show more conservative outlay estimates in the budget. (OMB recom.)

Pros:

- Consistent with EPCA requirement and available information on FEA implementation schedule for large, complex program.
- Allows Administration to fully fund program.
- Avoids embarrassment if facilities are not available for crude.



Cons:

- May subject FEA to criticism for inability to meet congressionally mandated schedule.
- Agency will maintain OMB does not know that schedule cannot be met.

Subissue 2B: Petroleum Transportation Costs

Background

- Last Spring, FEA agreed to purchase crude for the storage program at the national average price. The agreement did not specify whether this price was to apply to the cost of crude oil where it was produced, or to the cost of crude delivered to the storage site. The difference is transportation costs (shipping, insurance and loading and unloading charges) which are estimated to cost \$2.37/barrel.
- The Agency is examining several options to acquire crude at the national average price. Its favored option is described below for the case where crude is imported.
- Imported crude is estimated to cost \$15.20/barrel in FY 1978. FEA will be able to buy this crude for \$12.72/barrel (national average) because of the existing domestic crude price control program. FEA will issue its suppliers entitlements for old domestic crude. ^{1/} Its suppliers will sell these to refiners who need them. This will allow FEA's suppliers to provide crude for the program at \$12.72.
- FEA's budget request indicates that the agency plans to issue enough entitlements to offset some, but not all, of the \$2.37/barrel costs for transporting crude from point of production to the storage sites. The transportation costs on imported crude are:

	<u>\$ per barrel</u>
Transport from overseas to U.S. docks (overseas)	\$2.00
Transport from U.S. docks to storage site (stateside)..	0.37
Total.....	<u>\$2.37</u>



FEA plans to issue sufficient entitlements to offset the former but not the latter costs.

^{1/} Under FEA's entitlement program domestic refiners' costs for crude oil are equalized between refiners with mostly lower cost domestic crude and refiners with mostly higher cost imported crude. FEA issues entitlements to refiners who rely mainly on imported crude. Refiners who have a greater proportion of lower priced domestic crude are required to pay the difference between their average crude costs and the national average crude cost to refiners who rely mainly on imported crude. FEA will use the entitlement program for crude for storage by purchasing imported crude and allocating its suppliers sufficient old domestic crude entitlements to lower the average purchase price to the national average price of \$12.72/barrel.

- ° Consequently, the Agency requests \$56 million (\$0.37/barrel x 150 million barrels) for FY 1977 FY 1978 for stateside transportation costs.
- ° The Agency has not budgeted separately for overseas transportation costs because it assumes it can offset these with entitlements and remain within the national average price. The Agency has budgeted separately for stateside transportation costs but has failed to explain why this is necessary. In attempting to pin down why stateside transportation costs cannot be offset, OMB was provided answers from FEA ranging from "they probably can be offset" to "they cannot be offset due to legal problems and industry practice."

Statement of Subissue B

Should the national average price include all transportation costs?

Alternatives

1. No. Budget \$56 million total for FY 1977 and FY 1978 for stateside transportation costs. (Agency req.)
2. Yes. Deny \$56 million; require FEA to include this amount with the national composite average price by issuing more entitlements to offset the relatively minor stateside transportation costs.

Analysis

Budget Authority/Outlays
(\$ in millions)

	1977		1978	
	BA	O	BA	O
Strategic Petroleum Reserve/Crude Transportation:				
Alt. #1 (FEA request)	2.1	2.1	53.9	53.9
Alt. #2 (OMB recon.)	-	-	-	-
Difference from Alt. #1 (Agency request):	<u>1977 Outlays</u>		<u>1978 Outlays</u>	
Alt. #2.....	-2.1		-53.9	

Alternative 1. Budget \$56 million over and above the national average price to cover stateside oil transportation costs. (Agency req.)



Pros:

- Provides separate funding for stateside transportation costs.
- Agency argues that it would reduce chances that supplemental for oil may be needed.
- Agency explains that funds can be reprogrammed to other uses if not needed for stateside transportation costs.

Cons:

- Involves inconsistent assumption on transportation costs between overseas and stateside costs.
- May unnecessarily increase the cost of the oil to the USG for storage.

Alternative 2. Deny separate \$56 million stateside transportation cost request. Include as part of national composite price. (OMB rec.)

Pros:

- Puts all transportation costs on the same basis.
- Agency agrees all transportation costs can be met within the national average price level.

Cons:

- May provide some minor additional basis for private firms to litigate FEA's use of entitlements to lower the cost to the USG of oil for storage.

President's Decision

- Subissue A:
- Subissue B:



Issue Paper
Federal Energy Administration
1978 Budget
Issue #3: Crude and Facilities for the Strategic Petroleum Reserve

Subissue 3A: Facilities for the Strategic Petroleum Reserve

Background

- ° FEA bases its FY 1978 request for storage facilities on the EPCA 500 million barrel target for the SPR.
 - Congress appropriated \$300 million in FY 1976 for 230 million to 300 million barrels of storage facilities for the ESR at an average cost of \$1.00 to 1.30 per barrel. FEA estimates this will allow it to create facilities for 239 million barrels.
 - FEA requests an additional \$437 million in FY 1978 to create storage facilities for an additional 261 million barrels of crude, or a total of 500 million barrels at an average cost of \$1.67/barrel.
- ° FEA's justification for both programs is as follows:
 - The ESR will, tentatively, use four sites to store 239 million barrels of crude at a cost of \$297 million or \$1.24 per barrel. The four sites are Bryan Mound, West Hackberry, Bayou Choctaw, and Cote Blanche.
 - The SPR will, tentatively, expand two of the ESR sites (Bryan Mound, West Hackberry), and add one, (Napoleonville), at a cost of \$437 million or, an average \$1.67 per barrel.
- ° OMB assessment of the quality of FEA's cost estimates for the program is that they are an improvement over the estimates FEA had last spring. They are also significantly higher (averaging \$1.24 versus \$0.88/barrel for the ESR sites.)



- However, major uncertainties still exist in the estimates:
 - Land costs are not known. Appraisals are to be completed in December through February. Acquisition of the proposed sites is not certain.
 - Technical feasibility of sites is now being confirmed by on-site tests.
 - Design options are uncertain at each site.
 - . For example, at West Hackberry, FEA must decide whether to build (a) a 55-mile pipeline west to Netherlands; (b) a 12-mile pipeline north to Lone Star; or (c) a 4-mile pipeline to new docks to be constructed on Calcasieu Lake.
 - . FEA is now attempting to cost out these options and confirm their feasibility.
 - Environmental impact statements must be completed and regulatory permits must be obtained or satisfied.
- Because the impact of some of these changes is unknown, the range of costs cannot be accurately estimated. Much of uncertainty will be reduced in the spring of 1977 after land appraisals, technical tests, site designs, environmental impact statements, regulatory permits, and Congressional decisions are completed.
- ° This uncertain situation poses a dilemma in budgeting for storage facilities for FY 1978.
- ° OMB analysis of FEA facility estimates discloses potential ways to lower costs as follows:
 1. FEA's storage system requires the use of docks and storage tanks at terminal facilities for each site. FEA has requested \$40 million for construction of new dock and terminal facilities at Bayou Choctaw. Feasibility of designing and constructing these in FY 1977 as planned has not been determined. It may be possible to lease existing facilities owned by a private firm which would reduce, by a significant amount, the \$40 million requested. At other ESR storage sites, it plans to use existing terminal facilities. These terminal facilities would be leased by FEA from private firms. Availability of these facilities has yet to be confirmed.



2. Further expansion of West Hackberry to 220 million barrels from the FEA planned 170 million barrel level is possible. Since it is cheaper to expand an existing site as compared to adding a new site, the cost would be less than the \$99 million budgeted for Napoleonville, which is a new site proposed by FEA. FEA agrees savings in \$70-80 million range are possible by expanding West Hackberry to meet the 500MM size; FEA argues that doing this would reduce system flexibility, but would be within tolerable limits.
 3. Several lower cost sites not planned for use by FEA may be available, but each site poses certain problems (e.g., closing down mines in isolated areas), which may or may not prevent use. FEA is completing studies on these sites. One such site, Weekend Island, is estimated to cost \$1.00 per barrel to develop. This is \$50 million less than the costs for developing Napoleonville.
- ° OMB recognizes that not all of these reductions from FEA estimates can be implemented but believes that several are possible. OMB also notes that FEA budget request included 10% or \$45 million for contingencies.

Statement of the Issue

What level should be budgeted for storage facilities for the expansion to 500 million barrels?

Alternatives

1. \$437 million. (Agency req.)
2. \$390 million. This provides FEA with \$1.50 per barrel rather than the \$1.67 they request. Evidence indicates three areas where costs can be cut in excess of the \$47 million reduction. We believe this level will keep pressure on the agency to hold costs down. (OMB rec.)
3. \$390 million. Same as Alt. 2 except that FEA would be authorized to use the funds appropriated for oil to meet cost increases beyond \$390 million for facilities.

Analysis

Budget Authority/Outlays
(\$ in millions)

	1978		1979		1980		1981	
	BA	O	BA	O	BA	O	BA	O
Strategic Petroleum Reserve/Facilities:								
Agency Request (Alt. #1)	437	414	--	23	--	--	--	--

	1978		1979		1980		1981	
	BA	O	BA	O	BA	O	BA	O
Alt. #2 (OMB recom.) and Alt. #3	390	85	--	170	--	85	--	50

Alternative #1. Provide \$437 million as requested by FEA. (Agency request).

Pros:

- Agency will maintain that request is based on best available information, engineering feasibility studies, and is subject to small (10-15%) margin of error for materials and construction.
- Consistent with strong support for the program.
- Allows FEA to design storage facilities, confident that they will be expanded as planned.
- Agency argues this would reduce likelihood of need for supplemental appropriation.

Cons:

- FEA may change the design thereby reducing capital costs of facilities.
- Allows FEA to proceed with facility design even though lower cost opportunities may exist.
- Would lower pressure on the agency to use lower cost facilities.

Alternative #2. Provide conservative cost estimate (\$390 million). (OMB recom.)

Pros:

- Consistent with strong support for the program, tempered by recognition that cost estimates are uncertain.



- Puts maximum pressure on FEA to hold costs down in implementing the program.
- Program costs are not known with certainty.
- It will take 2-3 years to construct facilities; if the conservative estimates turn out to be low, ample time exists for a supplemental appropriation.

Cons:

- FEA will agree that facility costs may be below agency estimate, but that little basis exists for \$390 million estimate.
- FEA will resist stating estimates are uncertain when feasibility studies have been completed.
- FEA will maintain quibbling over facility costs is not appropriate. Facility costs are small relative to total system (facility and crude) costs. Agency should not be constrained in implementing legislatively required program on tight schedule.

Alternative #3. Same as Alternative #2 except that funds requested for oil could be used to meet facility cost if they are more than \$390 million.

Pros:

- Consistent with strong support for the program.
- Provides FEA with maximum flexibility.

Cons:

- Allows FEA to proceed with facility design even though lower cost opportunities may exist.
- Would lower pressure on the agency to use lower cost facilities.



Subissue 3B: Petroleum for the Strategic Petroleum Reserve

Background

- The Energy Policy and Conservation Act authorizes appropriations for FEA to purchase only 150 million barrels of crude. If FEA is to purchase more than 150 million barrels, a funding authorization must be enacted.
- FEA proposes that the Administration sponsor this authorization. Assuming no industrial storage (Issue #4), completion of a 500 million barrel program, and petroleum costs at the level contained in FEA's budget request, the Administration would propose a funding authorization of \$5.5 billion for 350 MMB of crude to complete the program.
- In FY 1979, FEA requests \$1,242 million in budget authority and outlays to purchase 92 million barrels of petroleum for the SPR. This, added to the 150 million barrel ESR, would bring the amount in storage up to 242 million barrels by September 1979. ^{1/}
- FEA contends that if it can store 150 million barrels by December 1978, it will have the storage facilities and logistical system in place to allow it to store the additional oil as proposed.
- OMB agrees that FEA's schedule is highly desirable. OMB is not proposing to slow FEA's progress in any way. However, OMB questions the feasibility of meeting the schedule.
- In Issue #2 (ESR crude), OMB noted that
 - Slippage has occurred in FEA's implementation plan to date.
 - The agency may be able to complete the 150 million barrel program within 6 to 9 months of the requirement (that is, by year end FY 1979).

Consequently, OMB has reestimated FEA's schedule for the program on a more conservative basis, based on what is likely to be possible rather than what is desirable.

^{1/} Note that the ESR sites have existing storage cavities for oil estimated at 239 MMB of capacity.

- ° The two schedules are shown below.

Millions of Barrels of Crude Stored

	<u>FY 1977</u> <u>9/77</u>	<u>FY 1978</u> <u>9/78</u>	<u>FY 1979</u> <u>12/78</u>	<u>9/79</u>	<u>Total</u>
FEA					
ESR	4	113	33	--	150
SPR	--	--	--	92	92
OMB					
ESR	4	74	22	50	150
SPR	--	--	--	20	20

- FEA's schedule assumes it is feasible to store 150 million barrels of oil by December 1978. The program is assumed to experience no unanticipated delays. Having stored 150 million barrels, the agency then goes on to store an additional 92 million barrels by the end of FY 1979.
 - OMB's schedule assumes the program will experience some delays. 100 million barrels is stored by December 1978. The agency is able to finish the ESR in FY 1979 and to store 20 million barrels toward SPR targets by the end of FY 1979.
- ° To repeat, OMB is not proposing to slow FEA's progress in any way. OMB's estimates are simply a more conservative projection of what is likely to be possible through FY 1979.

Statement of the Issue

How should we budget for purchase of petroleum in FY 1979 for the SPR?

Alternatives

1. Seek authorization for 350 million barrels (\$5.5 billion) in legislative program. In addition, budget for purchase and delivery of 92 million barrels. (Agency req.)
2. Seek authorization for 350 million barrels (\$5.5 billion) in legislative program. In addition, budget for purchase of 40 million barrels and delivery of 20 million. Indicate supplemental will be requested if warranted. (OMB rec.)

Analysis

Budget Authority/Outlays
(\$ in millions)

	1979	
	<u>BA</u>	<u>O</u>
Strategic Petroleum Reserve/Crude		
Alt. #1 (Agency req.)	1242	1242
Alt. #2 (OMB recom.)	540	270
Difference from Alt. #1 (Agency Request)		<u>Difference</u>
Alt. #2	-702	-972

Alternative #1. Budget for 92 million barrels of crude. (Agency req.)

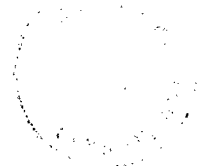
Pros:

- Agency will maintain this is consistent with their fill schedule for the program.
- Indicates confidence in program's schedule.

Cons:

- Program may experience unanticipated delays.
- Since program is not yet off the drawing board, this request may be regarded with skepticism by Congress and others as was the case last Spring.
- Estimates for FY 1979 will be printed in the FY 1978 budget. If FEA meets its schedule, then an appropriation request can be included in the FY 1979 budget sent to Congress next January.

Alternative #2. Budget for 40 million barrels of crude for FY 1979. (OMB rec.)



Pros:

- Implies a more realistic schedule and would avoid embarrassment of explaining why the schedule wasn't met and why program outlays weren't achieved if the program fails to meet the optimistic FEA schedule.
- Support for inclusion in FY 1979 budget is likely to be high if implementation proceeds on schedule.

Cons:

- Agency will maintain that this alternative is inconsistent with their implementation schedule.
- Could be interpreted as less than strong support for the program.

President's Decision:

- Subissue 3A:

- Subissue 3B:



Issue Paper
Federal Energy Administration
1978 Budget
Issue #4: Industrial Storage

Background

- ° The Energy Policy and Conservation Act (EPCA) which authorizes the storage program provides two main options for financing it:
 - It can be paid for by the Government, or EPCA's discretionary "industrial storage" authority can be used. This allows FEA to require importers and refiners to store oil.
 - The two approaches can be used in combination.
- ° The Naval Petroleum Reserves, which were originally expected to offset the budget impact of the storage program, are not adequate to finance the program because: NPR production and development requirements are using a substantial portion of the receipts; and the storage program's outlays which are based on size and an accelerated schedule through FY 1982 are expected to exceed NPR receipts by \$ 5.8 billion.



	\$ Millions					
	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982 2/</u>
NPR receipts	388.0	501.0	615.0	764.2	657.2	474.8
NPR	-275.3	-296.7	-85.0	-34.4	-29.9	-214.2
NPR/Alaska 1/	(-90.4)	-118.6	-119.9	-119.7	-252.3	-314.3
FEA/Storage 3/	<u>-326.3</u>	<u>-998.0</u>	<u>-1412.0</u>	<u>-1,466.3</u>	<u>-1,485.6</u>	<u>-1,573.1</u>
NPR Receipts Short- fall	-213.6	-912.3	-1001.9	- 936.2	-1,110.6	-1,626.8

1/ Note that 1980-82 estimates assume a USG exploration program. These outlays at the level shown may not be necessary if a commercial leasing policy is adopted.

2/ Beyond 1982 NPR receipts decline quickly and will not be sufficient to cover the costs of the storage program.

3/ Costs shown are OMB estimates.

- FEA's discretionary industrial storage authority provides a means of reducing the budget impact of the program by requiring the private sector (71 importers, 121 companies with 256 refineries, and their customers) to pay part of the program's costs by storing up to 180 MMB of petroleum.
- The following factors are relevant in assessing the desirability of using EPCA's industrial storage authorities:
 - impact on the Federal budget
 - impact on the private sector, including financial, efficiency, and conservation impacts
 - legal, constitutional, and administrative considerations
 - nature of the regulatory program
 - political considerations
 - experience of other countries.
- The impact on the private sector can be summarized as follows:
 - financial impact: FEA has concluded that the financial capability of most companies is adequate to meet the likely costs of storing up to 180 MMB if directed by the USG. However, for a few companies, mainly smaller entities with marginal financial capabilities, the impact would be severe; they may be unable to pay for the additional oil and go out of business or lobby for exemption from the program.
 - efficiency impact: An industrial storage program would affect efficiency in two ways: (1) Investment by the companies would be diverted from other investments. Some of this investment would be energy related (exploration and development, which the companies would stress, as well as gas stations). Others would not be (the energy companies would finance some of the investment by borrowing). This would divert capital from investments elbowed out. It is not possible to identify precisely which investment would not be undertaken. (2) The second efficiency impact would be determined by the policy followed in response to the appeals for exceptions. If they were not granted, the weaker firms would be forced out by competition within the industry. As a practical matter, exceptions would likely be granted. In that case, the program would favor those inefficient companies who are able to effectively present their case to FEA.



- legal, constitutional, and administrative considerations

- FEA notes that the use of the industrial storage authorities may pose legal difficulties since mandating storage may constitute an uncompensated taking of property from the companies. OMB/ General Counsel's informal opinion is that litigation is likely in view of the sums of money at stake; at the same time the government's case is good. Industrial storage is clearly authorized by the EPCA and the "taking" issue is involved in any regulatory program. FEA agrees the taking is less than that which results in, say, the entitlements program and the government's risk can be reduced by allowing firms to use their own storage facilities.
- Because FEA has decided against using the industrial storage authorities, it is not currently geared up to use them. An additional environmental impact statement probably would be required, and this could not be completed before oil is scheduled to flow into storage. Administrative measures would have to be developed, and FEA has not developed them. About a year would be required.

- nature of the regulatory program

- Theoretically, the regulatory program could be made simple, with required inventories determined by some objective criterion, policed through self-certification, supported by audited financial statements and minimal spot checks by the government. In practice any regulatory program is likely to evolve into a cumbersome and inefficient system on top of an already cumbersome and inefficient price regulation program:
 - With petroleum companies in bad repute, self-certification would probably not be politically acceptable.
 - EPCA explicitly requires exceptions for hardship cases. Exceptions would be likely and these would contribute to inefficiency in the industry.
 - Any objective criterion has drawbacks. Historical data penalizes the firm with decreasing sales, favors the firm with increasing sales. This would invite more complicated regulations adopted in the interest of "equity."
 - Weaker firms not able to sustain the increased inventory requirement would press for exemption.

- political considerations

- Politically, industrial storage is likely to be viewed as a means for forcing the oil companies to pay for the storage program.
- Given the continuation of price controls and the existence of "banked costs" which have not been passed on, some firms in the industry may not be able to pass on the costs of the program to consumers. (Other firms, however, would be able to pass on the costs of the program.)
- Regardless of the merits of the case
 - o Some members of Congress will view a government-financed program as a giveaway to "the oil companies."
 - o Other members will view an industrial program as a tax on oil companies rather than consumers.
- FEA has apparently not incorporated Congressional reaction considerations in preparing its December report to Congress. FEA's report is subject to a veto by either House. If it is vetoed, another plan must be submitted.

- experience of other OECD countries

- Data from all countries is not available.
- CIA reports that Germany has emergency stocks of 182 million barrels. The government's main role in stockpiling is to enforce requirements on private industry. The government reduced its own program from 73 to 29 million barrels. The private sector program allows exemptions for smaller independent refiners, which has led to charges that they enjoy an unfair advantage. Some tax concessions are granted.
- CIA reports that Japan's storage program, based on oil industry stocks, is proceeding in two phases. Phase I required companies to hold inventories equal to 60 days of consumption by March 1975; this was achieved fairly readily. Phase II requires 90 day inventories by 1980. Limited financial assistance is provided to industry (government loans and loan guarantees, interest subsidies, and accelerated depreciation allowances on storage facilities); the industry is calling for additional help for the more ambitious Phase II program.

- ° In assessing who should pay for the storage program, the choice turns on the following considerations.
 - In favor of industrial storage, the direct beneficiaries of the program (oil consumers and the petroleum industry) are confronted with the bill for the program. They can have more if they are willing to pay for it.
 - In favor of government storage, the program has national security aspects to it. Oil stored in the U.S. makes more oil available both domestically and to our allies overseas in a crisis. These benefits accrue to the general public and taxpayers should foot the bill for them.
- ° Other considerations
 - Industrial storage may result in requests for financial assistance to companies (grants, loans, loan guarantees, tax relief). If granted, these will reduce any budgetary savings.
 - From an administrative point of view, a case can be made that we should have either all industrial storage or no industrial storage. The cadre of inspectors and necessary regulations would probably be the same for a moderate and large program.
- ° FEA, impressed by possible legal problems in using its industrial storage authority, by delays this might cause in its tight schedule, did not press to completion its study of industrial storage. Among the questions on the use of this authority which should have been addressed are the following:
 - How much additional storage can the 192 companies in question provide and how quickly? Is there unused storage capacity that could be filled? Is this consistent with EPCA's targets?
 - What amendment if any to EPCA should be proposed to remove the legal cloud hanging over use of the authority?
 - A tariff of about 2¢ per gallon (85¢ per barrel) would have much the same financial impact as industrial storage (it would cover the budget impact and require importers to pay for the program) without the onus of a regulatory program. How viable is this option?
 - How real is the threat of a private sector drawdown if the USG moves ahead on a 500 MMB system without industrial storage?
 - How much private sector storage (primary, secondary, end-user) inventories are being held?

Statement of the Issue

Should the importers and refiners be required to store 180 MMB of petroleum as part of the SPR?

Pros:

- Requiring the private sector to store oil would reduce USG costs by \$2.5 to 3.0 billion.
- Requiring the private sector to store oil would preclude any inventory drawdown that may occur in view of the USG storage program.
- Requiring private sector storage places the cost of storage more directly on the sectors benefitting from such storage.
- Keeps the U.S. Government out of the business of holding stocks and engaging in State trading, or at least reduces its role.

Cons:

- A burden of \$2.5 to 3.0 billion would be placed on firms to pay for storage. This can adversely impact investment plans, raise operating costs and possibly force weaker businesses into bankruptcy.
- Industrial storage would require a new regulatory program on the industry in addition to price controls. These would expand Federal regulations over the petroleum industry.
- Firms may sue the government on the principle that the government is "taking" their property raising a Constitutional issue.

Alternatives

1. Implement 180 MMB industrial storage program.
2. Do not implement industrial storage; require industry to report its inventories periodically to monitor any drawdowns. (Agency req.)
3. Do not implement industrial storage; propose further study of unresolved questions with special attention focused on tax measures to pay for the program. (OMB rec.)



The agency opposes industrial storage because it will be difficult to implement. There are burdensome regulatory and technical problems; litigation may result; investment in energy development may be reduced by impacted companies. The agency does, however, recognize that inventory drawdown may occur if there is no further action. To prevent this, an inventory monitoring program is recommended.

OMB recommendation is based on incomplete FEA study results to date which leaves in doubt

- whether inventory drawdown will occur;
- the size of present private sector inventories;
- whether a streamlined industrial storage program at some minimum level is worthwhile; and
- who should pay for the \$9 billion cost of storage including whether a tariff, duty or tax may be used in lieu of industrial storage as a viable way to pay.

OMB therefore recommends no industrial storage at this time but proposes a more complete six-month study of the above issues. OMB believes that there will be continued pressure this year and next for increasing the storage system size beyond 500 MMB especially if its costs are borne by the USG even though only scant evidence may exist to justify such an expansion. Studying further the question of who will pay and whether industrial storage is a viable option will be useful in dealing with any such expansion.

President's Decision:

Issue Paper
Federal Energy Administration
1978 Budget
Issue #5: Regional Storage (information only)

Background

- ° EPCA requires that regional interests be protected; it does not require storage located in the regions.
- ° FEA has not requested funding for regional storage.

Statement of Issue

Should the Strategic Petroleum Reserve Program include regional storage?

Pros:

- ° The New England congressional delegation is pressing FEA to locate part of the reserve in New England or in a Canadian facility, referenced in the EPCA conference report, which is relatively low cost.
- ° Availability of U.S. flag ships to carry crude to Northeast is not 100 percent certain.

Cons:

- ° Regional storage is not needed:
 - If the Northeast can get crude from the Arabs, surely it can get crude from Texas and Louisiana.
 - If the Northeast can get products refined in the Caribbean from Arabian crude, surely if can get products refined in the Caribbean from crude held in storage in Texas and Louisiana.
- ° Regional storage costs more: 30 million barrel program proposed by FEA in spring would add \$120 to \$300 million to storage budget.

Recommendation

Storage located in the Gulf Coast can be designed to meet Northeast needs. OMB therefore agrees funding should not be requested for regional storage.

President's Decision:

