

**6/8/79 [2]**

Folder Citation: Collection: Office of Staff Secretary; Series: Presidential Files; Folder: 6/8/79  
[2]; Container 120

To See Complete Finding Aid:

[http://www.jimmycarterlibrary.gov/library/findingaids/Staff\\_Secretary.pdf](http://www.jimmycarterlibrary.gov/library/findingaids/Staff_Secretary.pdf)

THE WHITE HOUSE  
WASHINGTON

6/8/79

Stu Eizenstat

The attached was returned in teh  
President's outbox today and is  
forwarded to you for appropriate  
handling,

Rick Hutcheson

cc: Hugh Carter (Page 3)



FOR ACTION  
FYI

	FOR STAFFING
	FOR INFORMATION
✓	FROM PRESIDENT'S OUTBOX
	LOG IN/TO PRESIDENT TODAY
	IMMEDIATE TURNAROUND
	NO DEADLINE
	LAST DAY FOR ACTION

	VICE PRESIDENT
	JORDAN
✓	EIZENSTAT
	KRAFT
	LIPSHUTZ
	MOORE
	POWELL
	RAFSHOON
	WATSON
	WEXLER
	BRZEZINSKI
	MCINTYRE
	SCHULTZE
	ADAMS
	ANDRUS
	BELL
	BERGLAND
	BLUMENTHAL
	BROWN
	CALIFANO
	HARRIS
	KREPS
	MARSHALL
	SCHLESINGER
	STRAUSS
	VANCE

	ARONSON
	BUTLER
✓	H. CARTER of p. 3 only
	CLOUGH
	CRUIKSHANK
	FIRST LADY
	HARDEN
	HERNANDEZ
	HUTCHESON
	KAHN
	LINDER
	MARTIN
	MILLER
	MOE
	PETERSON
	PETTIGREW
	PRESS
	SANDERS
	WARREN
	WEDDINGTON
	WISE
	VOORDE
	ADMIN. CONFIDEN.
	CONFIDENTIAL
	SECRET
	EYES ONLY

return orig to me  
to read

THE WHITE HOUSE

WASHINGTON

June 5, 1979

*Stu*  
*J*

MEMORANDUM FOR THE PRESIDENT

FROM: STU EIZENSTAT *Stu*

SUBJECT: SOLAR MEMO

The attached memorandum sets out the major decisions which we are asking you to make to determine the overall shape and structure of our solar program. As you consider the issues presented, I would urge you to keep the following two points in mind:

1. From both a substantive and political standpoint, solar and renewable resources are the only really bright spots on an otherwise bleak energy horizon. While we want to avoid rash overpromises for these technologies, a strong and vigorous commitment to solar can help us in getting the Congress and the public to swallow the more bitter pills of decontrol and generally increasing prices.
2. The OPEC price increases expected from the Ministerial meeting at the end of June will add to the sense of despair and lack of control which the public seems to feel about the energy issue. A strong solar message and program, although not a panacea or solution in any short term sense, can help kindle the kind of interest and sense of dedication to doing better with our energy problems over the longer run which we have attempted to generate through the Energy Security Trust Fund. It will be important in trying to counter the sense of hopelessness which polls are showing the public feels about energy.

In large measure, the public response to your solar message will be determined by the reaction of the leading outside solar advocates and the members of Congress who have identified themselves with this issue. From that perspective, a 20% goal, and endorsement of a solar bank are critical. In fact, I don't think I would be overstating the case to say that proponents of solar would renounce any program, no matter how solid in other areas, which did not contain these two elements.

**Electrostatic Copy Made  
for Preservation Purposes**

I believe that it is substantively and politically important for you to have a strong solar program. The solar issue presents a real opportunity for you to become identified in a leadership role with this aspect of energy policy. Accordingly, I am urging your approval of the Bank and the 20% goal.

THE WHITE HOUSE

WASHINGTON

June 5, 1979

MEMORANDUM FOR: THE PRESIDENT  
FROM: STU EIZENSTAT *Stu*  
KITTY SCHIRMER  
SUBJECT: SOLAR ENERGY POLICY

Last May you requested that a Domestic Policy Review (DPR) of solar energy be undertaken to provide you with an analysis of solar energy technologies, a review of current Federal solar programs, and recommendations for accelerating the use of solar energy. In December the DPR Response Memorandum was submitted and circulated for comment to affected agencies. This memorandum summarizes the key findings and recommendations of the DPR and presents the major issues for your decision.

A number of issues and implementational questions are still outstanding in evaluating the specific program suggestions made by DPR. We will be working intensively over the next ten days to two weeks to resolve them -- or where appropriate submit them for your decision. We will have a Message ready for submission to Congress within the month -- targeted to the time that you will be back in Washington between the Vienna and Tokyo Summits. The inauguration of the solar system in the West Wing will be rescheduled for that time. The guidance you provide on the major issues presented for decision in this memorandum will, however, be important in shaping our work on the more detailed questions.

FINDINGS OF THE DOMESTIC POLICY REVIEW

Solar Energy was defined broadly by the DPR to include, in addition to radiant energy received directly from the

sun, stored radiant energy in biomass (i.e., wood, vegetation, and organic solid wastes), hydropower, wind power, and power generated by heated ocean waters.

Major conclusions of the DPR are:

- Significant potential exists for expanding the nation's use of solar energy. With appropriate private and government support, solar energy could make a significant contribution to U.S. energy supply by the end of this century. Renewable energy sources, principally biomass and hydropower, now contribute about 4.8 quads or six percent to the U.S. energy supply. Since estimates of future energy supply and demand are imprecise, three generic forecasts of possible solar use were developed. In the Base Case, where present policies and programs continue, solar energy could displace 10-12 quads of a total of 95-114 quads in the year 2000 if energy prices rise to the equivalent of \$25-32 per barrel of oil in 1977 dollars. A Maximum Practical effort by Federal, state and local governments could result in solar energy displacing 18 quads of conventional energy by the end of the century. Thus, if one assumes the higher future oil price scenario (corresponding to a total energy demand of 95 quads in the year 2000) and this Maximum Practical effort, solar could provide about 20 percent of the nation's energy by the year 2000. The technical limit to solar penetration by the year 2000, imposed primarily by the rates at which changes can be made to existing stocks of buildings and equipment, and rates at which solar techniques can be manufactured and deployed, appears to be 25-30 quads. 10-12%  
2000 a.d.  
  
~18%?
- Solar energy offers numerous advantages over competing technologies, particularly for reducing our balance of payments, reducing dependence on oil imports, strengthening national security, providing energy with fewer environmental impacts, diversifying energy sources, and creating jobs.
- Widespread use of solar energy is hindered by governmental policies that subsidize competing energy sources (i.e., price controls on oil and gas, subsidies for nuclear energy, and utility rate structures that are based on average rather than marginal costs). The competitiveness of solar technologies is directly related to the price of these alternative energy sources.

**Electrostatic Copy Made  
for Preservation Purposes**

- Accelerating the use of solar energy will require the combined efforts of government and the private sector; Federal actions alone will not ensure increased solar use. However, the DPR supports Federal promotion, through additional interest rate subsidies and tax credits for solar technologies that are not currently competitive economically. The DPR also indicated that Federal R & D program priorities for solar could be linked more closely to overall national energy goals.
- Some solar technologies are now or soon could be competitive with other fuels, but limited public awareness and lack of confidence in solar are major barriers which hinder solar penetration in the marketplace. Users and small producers face financial barriers to using solar energy.
- Solar energy presents the U.S. with important opportunities to advance foreign policy and international trade objectives; and non-proliferation policies.

Attached at Tab A is the DPR's Response Memorandum to you. If possible, we recommend that you review at least the Executive Summary.

#### STATUS OF SOLAR TECHNOLOGIES

The DPR found that several solar technologies are technically ready, commercially available and economical in many areas of the nation, but their use has been inhibited by institutional and information problems. These technologies are:

Passive solar systems (i.e., building designs and construction techniques that maximize the use of the sun's rays for heating and cooling and minimize the use of conventional equipment) are available and cost effective today, and can increasingly penetrate the marketplace with improved information for builders and buyers.

The direct burning of wood has been economical in the private sector for some time, especially in areas that are close to wood production sites; however, some improvements in the collection and transportation of biomass are needed for a major expansion in consumer use.

**Electrostatic Copy Made  
for Preservation Purposes**

*We should  
work hard  
with  
architects*

*I'll install  
2-3 wood  
stoves in  
W.H. wing  
this year*

- Solar hot water systems are commercially available today and compete successfully against electric resistance heating in most parts of the country. These systems could compete successfully against systems using natural gas in the next 10-15 years.
- *Let's concentrate on Berlin, N.H. site -* Low-head hydroelectric plants currently are economical in some areas, but their greater use has been inhibited by power marketing problems, complicated licensing procedures and other institutional problems.

Some solar technologies are within range of becoming competitive, but are not yet so. These are:

- Solar space heating systems are not yet widely competitive with electric resistance heating, but may compete successfully with electricity in the next five years. They currently deliver energy at several times the cost of oil and natural gas. These systems will be increasingly economical as oil and gas prices continue to rise and as more efficient systems, along with hybrid systems such as solar assisted heat pumps, are introduced into the marketplace.
- Solar industrial process heat currently is about two to three times as expensive as oil heat, but could compete successfully with oil within five to ten years.
- Electricity from wind machines currently is two to five times as expensive as electricity from utility grids, but is expected to come down in cost by a factor of three by 1990.

There are several other solar technologies which are further from commercialization. These include solar cooling, photovoltaics, solar thermal electric, ocean thermal systems, and advanced technologies to produce fuels from biomass. Significantly more technical and economical improvement is required before they will be competitive.

**Electrostatic Copy Made  
for Preservation Purposes**

### CURRENT FEDERAL SOLAR POLICIES AND PROGRAMS

Four key Federal initiatives supporting accelerated development of all solar technologies in the near term are:

- Your recent action to decontrol prices of domestic crude oil by October 1, 1981.
- The NEA phased decontrol of natural gas prices.
- The tax credits enacted in the National Energy Act.
- The tax credits proposed to be funded from the Energy Security Trust Fund. (already announced)

In addition, Federal spending to promote solar energy has increased dramatically since you took office. Your FY 1980 budget provides \$866 million in budget authority and tax credits for solar programs\* and your April 5 Energy Security Trust Fund proposals bring this total to \$962 million. This is nearly triple the amount requested in President Ford's FY 1978 budget, (\$360 million) and a \$200 million increase over FY 1979 expenditures. Funding for DOE solar programs, representing the major portion of Federal funding for solar R & D and commercialization, has increased 13% over FY 1979 and more than fifteenfold since 1975.

Finally, solar tax initiatives included in the National Energy Act and proposed for the Energy Security Trust Fund are estimated to result in FY 1980 tax expenditure of \$170 million and solar programs in other Federal agencies (e.g., Small Business Administration solar loans program, TVA solar demonstrations) are estimated at about another \$130 million.

---

\*These budget figures do not include Federal funding for large hydropower projects. The expected energy contributions from large dams is included in the overall Quad estimates for solar energy's contribution to domestic needs, but budget outlays for these programs are not included within the solar and renewables budget figures. This convention is used because (1) the solar advocates have traditionally counted high head hydro's contribution as part of the total solar Quad yield, but (2) inclusion of funding for these dams would greatly distort the level of efforts which we are providing for other types of solar and renewable efforts.

Your FY 1980 budget reflected some of the findings of the DPR and your decontrol and tax initiatives address other specific concerns or recommendations of the final DPR Response Memorandum.

A summary of funding for the Federal solar programs is attached at Tab B.

### DPR POLICY OPTIONS

To further enhance the acceleration of solar energy above the base programs existing before your FY 1980 budget proposal, the DPR developed three broad options for Federal policy. These options were designed to be illustrative examples of levels of Federal effort. The options are not set in concrete, and throughout the DPR, it has been assumed that elements of each of the broad options could be recombined to form a specific Presidential recommendation.

OPTION I - A targeted redirection and expansion of the existing program.

This option relies heavily on administrative actions to emphasize and improve the informational, educational, technical assistance and other relatively low-cost programs. Projected additional cost above planned levels is \$160 million through 1985 to yield an estimated 0.3 to 0.7 more Quads of solar in the year 2000. (Total of 10.3 to 10.6 Quads including hydropower.)

OPTION II - Further acceleration of the solar program in the near term.

This option assumes implementation of the initiatives in Option I, plus a range of other activities to provide substantial additional stimulus to solar in the near term. Two of the key initiatives included in this option have already been announced as eligible for funding from the Energy Security Trust Fund and included in the FY 1980 budget totals mentioned previously. These are the new tax credits for passive solar investments and for solar process heat. In addition, our Energy Security Trust Fund initiatives include a wood burning stove tax credit and an extended exemption from the 4¢ Federal gasoline tax for

gasohol. These will supplement the options the DPR defined under Option II.

The total additional cost to the Federal budget of Option II is \$2.5 billion through 1985. However, this estimate includes the tax expenditures already included in the Energy Security Trust Fund. (Rough estimates are that the tax credits will cost \$1.5 billion to \$2 billion through 1985. The remainder would be devoted principally to a new subsidized loan program to be administered through a Federal Solar Bank, should you approve it.) Other initiatives, for which there is no additional estimated Quad yield, include increased R & D and certain mandatory requirements to use solar in Federal buildings and in Federal power generation facilities. Estimated additional Quad yield in 2000 for these initiatives is 1.4 to 2.3. (Total of 12.0 to 12.9 Quads, including hydropower.)

OPTION III - A massive Federal budget and regulatory commitment to increase solar use.

This option assumes implementation of both Options I and II and includes significant additional financial incentives and considerably stronger regulatory measures. The incremental additional cost of this option is estimated to be \$6 billion in FY 1980, \$44 billion cumulatively by 2000. There is an even stronger reliance on expanded tax expenditures, mandatory requirements for residential and industrial use of solar, and larger loan and grant programs. If this option is implemented another 15.7 Quads could be provided by 2000. (Maximum of 28.6 Quads total, or about 25% including hydropower.)

A break-out of estimated Federal costs and projected Quad yields is shown on the following charts.

TABLE I

SOLAR DOMESTIC POLICY REVIEW  
COSTS AND BENEFITS OF DPR OPTIONS<sup>1/</sup>

	<u>Base</u>	<u>Option I</u>	<u>Option II</u>	<u>Option III</u>
<u>MAXIMUM INCREMENTAL YIELD</u>				
DPR estimate of additional annual energy contribution for each option in the year 2000 above the cumulative contribution estimated for all lower options in Quads (10 <sup>15</sup> BTU), and % of DPR estimated mid-range annual U. S. energy demand for the year 2000.	N/A	0.7 Q	2.3 Q <sup>4/</sup>	15.7 Q
	N/A	- %	2.0 %	13.8 %
<u>MAXIMUM TOTAL YIELD<sup>2/</sup></u>				
DPR estimate of cumulative impact of each option, including the base and all lower options, in the year 2000, Quads and %.	9.9 Q	10.6 Q	12.9 Q	28.6 Q
	8.7 %	9.2 %	11.3 %	25.0 %
<u>INCREMENTAL FEDERAL COST</u>				
DPR estimate of additional Federal costs through 1985 for each option above the cumulative cost estimated for the base and all lower options. \$ billions.	N/A	\$0.2	\$2.6	\$44.3 <sup>5/</sup>
<u>TOTAL FEDERAL COST<sup>3/</sup></u>				
Estimate of total cost of each option through 1985, including the base and all lower options.	\$6.7	\$6.9	\$9.5	\$53.8 <sup>5/</sup>

## TABLE I

## FOOTNOTES

- 1/ In general, there is difficulty in predicting future solar use or total demand. The DPR projected a range of between 95-132 Quads of total demand in 2000. These figures assume the mid-range demand of 114 Quads and are rough estimates based on economic modeling and broad qualitative judgments.
- 2/ Option I presumes an FY 1979 reprogramming (from outside of the solar program but within DOE, source not specified) and most initiatives are proposed to begin in FY 1980.
- 3/ DPR options are structured so that each presumes the initiatives of the lower option are also approved. However, the DPR did not state any assumed base program cost. Estimates shown here reflect Treasury estimates for tax credits, OMB/DOE commitment projections for major solar programs, and assumed level continuation of other ongoing programs.
- 4/ 70% of this incremental benefit is due to process heat and residential/commercial solar passive tax credits, which have already been proposed for funding from the Energy Security Trust Fund.
- 5/ Because several costly Option III initiatives extend well beyond 1985, the Federal cost of Option III through the year 2000 would be about an additional \$113 billion, for a total cost of \$123 billion. By comparison, the year 2000 costs for lower options I and II would not greatly exceed the estimates through 1985.

Specific program proposals included in each of the three illustrative options are shown in Tab C.

DECISIONS REQUIRED NOW

Looking at the three broad options, all of your advisers agree in general that action targeted to all of the areas identified for improvement in Option I and most of II should be pursued expeditiously. There are, however, specific issues and budget questions which are still in the process of being worked out. However, all of the specific initiatives included in Options I and II will be addressed in the next two weeks. These will either be resolved by the involved agencies or forwarded to you in a later memorandum for decision. Your guidance on the major issues discussed in this memorandum is needed so that we can prepare a Message for delivery to Congress within the next few weeks.

The major remaining issue in Option II (since most of the tax credits have already been proposed in the Energy Security Trust Fund) is whether to establish a Solar Bank for additional financing of residential and commercial uses of solar.

With respect to Option III, several agencies are recommending approval of several proposals in that Option. In general, however, all of your advisers agree that implementation of the full range of proposals in Option III would be too expensive, coercive, and relies heavily on mandatory government programs to achieve high solar growth. In view of the great uncertainty surrounding the price and availability of conventional energy sources, and the technical and economic status of the renewable sources, it is not possible to say at this time whether measures such as these will ultimately be needed to achieve a high solar goal 21 years from now. Option III was included in the DPR exercise largely in response to requests from solar advocates in Congress and private groups to provide you with their recommendations for an all-out solar effort. With respect to the specific recommendations agencies have for approval of some of the Option III programs, these will be resolved along with the other specific issues from Options I and II.

In addition to the Solar Bank issue, two other decisions are required:

- Whether to select a National solar energy goal for the year 2000.
- Whether to establish additional coordination mechanisms for Federal solar programs.

1. SOLAR FINANCING INCENTIVES

The DPR concluded that new financial mechanisms will be needed to ensure that sufficient capital is available to finance the purchase of solar equipment and thereby stimulate solar use. There are two alternatives identified for Federal action on this issue:

A. Federal Solar Bank

The DPR recommends the establishment of a Solar Bank to assure that financing will be available on reasonable credit terms for users of solar energy. The Bank would be established as a government corporation. It would work through existing private sector financial institutions to provide subsidized and unsubsidized loans for residential solar energy systems. The Bank would also have authority to guarantee loans for cost-effective commercial, industrial and agricultural solar applications.

The Bank would accomplish its residential sector objectives primarily through secondary market operations. It would commit to purchase and would purchase mortgages on homes equipped with solar energy systems and home improvement loans for the purchase of solar energy systems. The Bank would only purchase those loans which meet its solar credit and warranty policies. As a result of the secondary market programs, private lenders will become familiar with solar lending, appraising, credit, and underwriting policies and criteria. In addition, the Bank would encourage lenders to establish specific financing options for solar systems, such as graduated payment loans, by committing to purchase and purchasing loans meeting the Bank's criteria. The Bank would have the authority in appropriate cases to absorb the costs of reduced interest rates and extended maturities on solar loans. Budget outlays to support the Bank's subsidized programs, operations, and bad debt reserve would not exceed \$500 million through FY 1985, with outlays of up to \$100 million in FY 1981. Detailed budget estimates are still being developed.

*What is a "system" ?*

*← ok*

(The DPR is silent as to the location of the Bank. Congressman Neal, the sponsor of the principal Solar Bank bill, and the solar industry, favor its location within HUD, although Congressman Neal's bill proposes a significantly different programmatic approach to the Bank. The leading solar advocates do not oppose its location inside HUD.)

### Advantages

- Approval of a solar bank is a key to broad acceptance of your overall solar program. It is a major priority of the Solar Lobby which regards it both as a rallying point and as a desirable means for providing a visible form of subsidy.
- Augments the supply of capital available for solar purchases.
- Will have ability to reduce effective costs of solar energy systems by means of interest rate subsidies and longer term loans.
- Provides a single federal financial institution whose primary mission would be to accelerate solar financing.
- When combined with the Energy Security Trust Fund initiatives and the current federal program, results in essentially an Option II solar program in terms of projected Quad yields in 2000 (adds about 0.6 for a total of about 12.9 Quads maximum).
- It is currently a popular concept, with Solar Bank bills receiving widespread cosponsorship in the House and Senate.
- If located within HUD it would minimize duplication with existing programs and reduce start-up time lag.
- Would meet financing needs of commercial, industrial and agricultural markets as well as residential market.

Disadvantages

- Subsidy as proposed by the DPR is high cost.  
It would not benefit the poor. <
- There does not appear to be any current lack of overall credit for solar financing at non-subsidized rates, although some lending institutions may not view solar loans and loan terms as favorable as more conventional lending activities. <
- Placement of the bank in an existing agency may result in a bias towards that agency's traditional constituencies.
- If it is a new institution, it would duplicate some existing secondary market programs and authorities of GNMA and FNMA.
- Would require legislation which will take a minimum of six weeks to prepare for submission.
- There has not yet been time to evaluate the effectiveness of the financing and other incentives enacted in the NEA last year.

B. Strengthen Existing Finance Mechanisms

There are actions short of creating a separate Solar Bank which can be taken to assist in the purchase of solar energy systems. The NEA provides GNMA with the authority to purchase FHA insured home improvement loans to finance solar retrofitting of residences. This is a five year program with a limit of \$8,000 per loan and no income eligibility limitations. The NEA provides that up to \$100 million in loans may be outstanding at any one time. No funding has been requested thus far. A supplemental appropriations request would provide an opportunity to test the usefulness of the program, with the option of requesting additional funding if it appears justified. This would be funded from the Energy Security Trust Fund.

In addition, if you decide to activate this solar loan program, it would be possible to create by executive action within GNMA a Solar National Mortgage Agency (SNMA or "Sunny Mae") to operate the program. (A variation would be to call this option a Solar Bank.) It is anticipated that the interest rate on these loans would be subsidized down to 9% and the \$100 million authority should support about 20,000 loans at an average of \$5,000 per loan. Because GNMA can re-sell these loans, the cost to the government will be substantially less than the \$100 million appropriation. Net outlays are estimated at about \$12.5 million.

Advantages

- Would highlight solar financing functions at a relatively low cost
- Would not require a new administrative apparatus, since its functions could be performed by GNMA staff and its Administrator could be the President of GNMA
- Would not duplicate existing structures
- Requires no new legislation

Disadvantages

- This approach, or any other perceived to be less than the Solar Bank, will be criticized by the Solar Lobby and solar advocates in Congress.
- This program would not be applicable to new mortgages, since only home improvements are eligible.
- Loans may not provide sufficient subsidy and therefore may not be attractive to consumers who also may desire that home improvement loans provide coverage for non-solar purposes as well.
- May create pressures to extend the program beyond the proposed five-year life of the program.
- Does not provide added assistance for non-residential use of solar.

*Why not expand to new ones, if "complete system" installed*

DECISION

*Explore a) combining, b) name it "solar bank", c) include complete new home if designed to meet solar standards*

---



---



---

Solar Bank -- (Recommended by DOE, CEQ, TVA, DPS, and EPA)

Create a "Sunny Mae" within GNMA -- (Recommended by OMB, FHLMC, and HUD)

Do not approve either -- (Recommended by Treasury)

## 2. A NATIONAL GOAL FOR SOLAR ENERGY

The selection of a goal for solar energy's contribution to total U. S. energy supplies is tied to three important factors: the level of Federal support for solar and renewables, the price of alternative sources of energy, particularly oil and natural gas, and the response of the private sector and other levels of government. The DPR identified two possible goals for solar for the year 2000: 15% and 25%, each tied roughly to the levels of Federal support shown in Options II and III. It also discussed a possible 20% mid-range goal. The DPR analyzed the impacts of two levels of oil prices on reaching these goals -- \$25 per barrel and \$32 per barrel (in 1977 dollars) by the year 2000.

*oil will be at least \$32*

The DPR found that the Option I level of efforts could be expected to yield 9% or 12% contribution from solar energy by the year 2000 depending on the pricing scenario. An Option II level of effort would support an 11% contribution at \$25 per barrel and 13%-15% contribution (with oil prices at \$32/Barrel). Alternatively, the DPR states that Option II can support a 20% goal if additional initiatives were considered in future years on an as needed basis and a strong response were forthcoming from the private sector and State and local governments. The Option III approach, with its substantial funding level and significant involvement of mandatory Federal requirements, would support a 25% goal.

The DPR made no specific recommendations on the issue of setting a goal.

As stated above, current Federal efforts -- including the Energy Security Trust Fund tax initiatives and oil and gas decontrol -- most probably will yield close to an 11% contribution in 2000 for solar and hydropower technologies. Should you decide to approve the Solar Bank, and other Federal financial measures, it is possible to project a solar-hydro contribution between 11%-12% by 2000 or higher if oil prices rise to \$32/barrel. Your decision then is: a) whether to set a National Solar Goal, and b) if so, whether to set a quantitative goal for solar to provide between 12% and 25% of our energy needs in 2000.

There are significant political reasons why you should select and announce a National Solar Goal for 2000:

- Solar energy is perceived to be a positive energy issue by many of your supporters in labor, business, the conservation community, urban groups, consumer groups, as well as on both sides of the aisle in Congress. A vigorous solar program tied to a goal can be used to balance the perceived negative effects of oil decontrol and public criticism of our nuclear energy policies.
- Solar activity in the Congress is already substantial: the Congressional "Solar Caucus" has a near majority in the House and is growing in the Senate; incremental pieces of solar legislation (i.e., the Solar Bank) are being introduced, and Presidential inaction on a broad solar strategy is not likely to slow the solar thrust on the Hill. Solar energy is a timely issue waiting for Presidential leadership and can be an extremely popular issue in the 1980 campaign. If properly developed, announcement of a solar goal for 2000 will solidly indicate your commitment to solar energy, and at the same time demonstrate your leadership by calling on the hard work and inventiveness of the American people to move the country to achieve and surpass the goal. DOE, CEO and Stu believe that announcement of a solar policy without a goal will be widely viewed as a lack of leadership on your part and could overshadow any additional solar initiatives you may announce.
- There appears to be genuine widespread interest by the public for a larger Federal role in support of the rapid development of most solar technologies. Selection of a goal may be the most visible measurement of how your solar program is viewed by the public.
- The initiation of the Solar Domestic Policy Review has produced high expectations about your future support for an expanded solar program. The DPR Response Memorandum has been quietly released for comment and has added to the enthusiasm of the Solar Lobby, industry groups, and members of Congress to look to the Administration for major new solar initiatives.

Your meetings with these groups revealed this enthusiasm. In addition, the press and the media are actively reporting their demands.

There are also disadvantages associated with the selection of a goal:

- Any specific goal chosen will most probably meet opposition -- either from the solar advocates for being too low, or from skeptics for being unrealistic.
- Because of substantial economic, social and technological uncertainties associated with projections to the year 2000, we can have little confidence now that any particular goal is socially optimal or even economically reasonable or technically feasible.

With these points in mind, we see the following alternatives available, should you decide to select a National Solar Goal:

1. Improve the current program: a 15% solar goal by 2000.
2. A qualitative goal: Presidential statement of objective to maximize solar and renewable resource use by 2000, but without a quantitative target
3. A 20% solar goal by 2000, making clear that it is ambitious, depends on an enthusiastic response by the private sector and State and local governments, and will not be accompanied by increases in the Federal budget beyond those recommended now.
4. A 25% solar goal by 2000.

Alternative 1: Accelerate the current program: 15% Solar Goal

#### Advantages

- Represents the upper bound of credibility to energy analysts skeptical about solar, including some senior officials in government and industry

- Could be justified as a springboard -- the minimum level necessary in 2000 to make possible a rapid transition to solar in the 21st century
- Solar message could be used to make clear that the recent initiatives you already announced gives the nation much of the DPR Option II, and then challenges the people to go beyond this to a 15% solar program.

#### Disadvantages

- Will be viewed by many as an unambitious, "no-action" goal, a "business as usual" policy on an issue generally agreed to be the one hope on the energy horizon.
- Will be rejected by the Solar Lobby who probably would prefer no goal over one perceived to be so low.
- Since you have already announced the major components of the DPR option which most nearly corresponds to a 15% goal (the Energy Security Trust Fund Tax Credits), most of the benefits of announcing this goal will be lost, and you may not be given credit for the substantial solar program you have endorsed
- Will be perceived by many Solar advocates as a lack of Presidential leadership.

#### Alternative 2: A Qualitative Goal

##### Advantages

- Avoids the hazards of trying to establish an optimal solar goal in the face of great technical and economic uncertainty for both solar and competing energy forms. This option provides the most flexibility to respond to future opportunities and fiscal constraints.
- Avoids the potential budgetary pressure that a numerical goal could create.

### Disadvantages

- Unless carefully framed in terms of the uncertainty of projections, a qualitative goal may be attacked as vague and unambitious.
- Will be rejected by those who feel strongly that you should set an aggressive, quantitative goal.
- All disadvantages of the 15% goal apply here too.

### Alternative 3: The 20% Solar Goal

#### Advantages

- Solidly demonstrates your commitment to solar energy by indicating your support for a national effort to increase solar use beyond what the Federal government's current programs will provide.
- If properly constructed, it could indicate strong executive leadership by announcing a target for solar/renewable energy contributions that can only be achieved through combined efforts of the Federal, State, local governments, business, labor, and consumers. It would necessarily not imply commitments to higher Federal solar budget expenditures in future years.
- This is the minimum program acceptable to solar advocates, particularly given your Sun Day statement on a 25% goal.

#### Disadvantages

- This goal does not correspond directly to any option proposed by the DPR (related to the DPR Option II initiatives plus other programs).
- Even if the 20% goal is carefully constructed not to rely on Federal actions, the goal may be used to create pressure for additional Federal budgetary support to achieve it.
- Energy analysts who are less optimistic about solar will criticize this goal as unrealistic.

- If not properly constructed, many may feel you are being less than candid in trying to take the political benefits of an ambitious goal without supporting the corresponding initiatives to achieve it.

Alternative 4: The 25% Solar Goal

Advantages

- Demonstrates the strongest Federal commitment to, and executive leadership in, solar energy.
- Will be strongly endorsed by solar advocates, environmentalists, and other business and labor groups.
- Would create the most favorable climate for rapid acceleration of solar.

Disadvantages

- This goal corresponds to the DPR Option III requiring a massively expanded Federal presence to achieve. Such a program conflicts sharply with your anti-inflation and budgetary goals in the nearer term.
- Initiatives required to implement this option would result in unprecedented levels of Federal subsidies and Federal intervention in the marketplace.
- Many energy advisers, including Secretary Schlesinger, feel that because solar use depends so much on non-Federal initiatives, a 25% goal may not be achievable by 2000 regardless of how large a Federal program is established.
- Will draw criticism from the "conventional" energy community and be a signal to them that your energy policies are unrealistic. Severe political damage could occur.

This decision is clearly the most important one of your solar policy. On balance, I feel that the selection of a National Solar Goal for 2000 is critical if your

program is to be perceived as being credible. I recommend that you select the 20% solar goal because of the advantages stated and because I feel it can be developed in such a way as not to add additional pressure for future Federal actions by challenging the American people to take the steps necessary to move beyond what current Federal efforts will provide. It can be demonstrated that 1) your FY 1980 budget, 2) your Energy Security Trust Fund tax credits, and 3) your support of oil and gas decontrol amounts to a tremendous growth in Federal support for solar and approaches the limits of what can be achieved under traditional government intervention.

Larger goals and related Federal initiatives would:

- a) create a "big government" concept significantly greater than seen before,
- b) be counter-productive to anti-inflation efforts and increase budget deficits to such an extent that the economy would show little improvement in the short term.

DECISION

- |         |   |
|---------|---|
| _____   | Acceleration of the current program, 15% Solar  |
| _____   | The qualitative goal (i.e., maximize solar and renewable resource use) -- (Recommended by OSTP)   |
| _____ ✓ | 20% solar goal (making clear that it is ambitious, depends on an enthusiastic response by the private sector and State and local governments, and will <u>not</u> be accomplished by increases in the Federal budget beyond those recommended now.) -- (Recommended by DOE, DPS, OMB, CEQ, and EPA) |
| _____   | 25% solar goal  |

3. IMPROVE COORDINATION OF FEDERAL EFFORTS

We have identified twenty-three different solar energy programs in at least eight different Federal agencies for which funds are being sought in the Fiscal Year 1980 budget. The Department of Energy is the lead agency and has most of the funding, but significant functions are lodged in other agencies of coordinate status. To ensure that these funds are used effectively, that overlap and wasteful competition among projects are minimized, and that each part advances the overall objectives for the entire program, some degree of central guidance and coordination is essential. Industry representatives have expressed concern about the need for more effective coordination of Federal programs, and without a better coordinated effort it will prove difficult to induce companies to make major expenditures to promote sales of solar energy systems.

The Solar Lobby has recommended the creation of a Solar Policy Council, chaired by the Vice President, as a coordinating mechanism. (The DPR included this proposal in Option III.) CEQ, the solar industry and others have suggested that there be a Special Assistant for Solar Energy within the Executive Office of the President.

An alternative approach is the creation of a non-EOP coordinating mechanism, specifically, a new Standing Committee of the Energy Coordinating Council. (One of the initiatives you announced in the 4/5/79 energy address was the creation of a National Energy Productivity Task Force on the ECC. A similar body for solar could be established to follow through on the implementation of the various initiatives identified within Options I and II.) It would use existing ECC resources. The ECC membership covers most of the agencies with key roles in solar. Agencies which are not members of the ECC could be brought in as needed.

A. Coordinating mechanism within EOP

Advantages

- EOP placement would dramatize and give visibility to Presidential interest in solar energy.
- Some believe EOP identification could afford greater effectiveness in reconciling conflicting policies; hence more effective coordination of Federal solar effort.

- Provide a focal point for interaction with the private sector.
- Could be accomplished with minimal staffing: one Special Assistant to the President, with modest staff support supplied by DOE.

#### Disadvantages

- Other interests desiring White House representation will be encouraged to seek similar treatment.
- Runs contrary to policy of reducing White House Staff.
- Special Assistant could become an advocate for solar interests, rather than carrying out Presidential policy.
- EOP intervention might be resisted by agencies, limiting degree of coordination which could, in fact, be achieved.
- Could tend to circumvent the orderly consideration of solar policy issues in context with other equally important policy issues, and raise severe ambiguities as to how this individual relates to established coordination and decision-making systems (e.g., OMB clearance process, DPS coordination, etc.)

If you agree with a coordinating mechanism within the EOP, there are two alternatives that have been identified -- 1) A Special Assistant to the President for Solar Energy or 2) an EOP Committee chaired by CEQ.

A Special Assistant to the President would provide greater visibility, a greater perceived commitment and a stronger focal point for interaction with the private sector than assigning the responsibility to an existing EOP unit as an additional duty.

Assigning the duty to CEQ would avoid creation of a separate new EOP unit while retaining some of the perceived visibility and independence of a Special Assistant. CEQ has credibility with solar advocates and good relations with those responsible for solar programs in Federal agencies.

B. Standing Committee of ECC

Advantages

- Easy to establish; a Standing Solar Energy Committee within the Energy Coordinating Committee would require no further executive direction from you and could begin functioning almost immediately.
- Would help by identifying conflicting policies in different agencies, and seeking agreement on consistent policy and implementation.
- Would not increase White House Staff or organizational complexity

Disadvantages

- May lack effectiveness in harmonizing diverging policies where agencies do not agree.
- Difficult for committee to function on continuing basis.
- Not as popular politically and does not demonstrate a high level of Presidential interest or commitment.

DECISION

\_\_\_\_\_ ✓

Create non-EOP-based interagency Committee (Standing Committee of Energy Coordinating Council) with a focus on coordination and implementation rather than advocacy -- (Recommended by DPS, OMB, OSTP and DOE)

\_\_\_\_\_

Create Special Assistant to the President for Solar Energy -- (Recommended by CEQ)

\_\_\_\_\_

Create EOP-based interagency committee chaired by CEQ -- (CEQ's second choice)

OPTION 1 INITIATIVES  
(continued)

Government

Federal-Domestic

Extend certain Federal purchase programs beyond 1981 at current levels.

Revise Federal cost/benefit criteria to include replacement cost pricing and a lower discount rate. Alternatively, DOE funding the difference between the cost satisfying OMB criteria and the actual cost for solar purchases under Military Construction Authorization Act.

Federal-International

Coordinate Federal international programs through one agency, with foreign policy guidance from the Department of State.

Place increased emphasis on programs for technical cooperation, aid to developing countries for resource development, and export assistance for the U. S. solar industry.

## OPTION 2 INITIATIVES

### Residential/Commercial Sector

Tax credit to builders for energy efficient construction.

Permit lessors to qualify for the regular investment tax credit for solar hot water and space heating and cooling expenditures.

Adopt a 4-year, \$10 million pilot program for 80 percent grants to low income homeowners, condominiums, and cooperatives through the HUD Community Development Block Grant Program and Farmers Home Administration.

Increase Public Housing Prototype costs up to 20 percent where solar systems are used; extend FHA increased appropriations for Section 8 and Public Housing programs by \$10 million per year to fund installation of solar energy systems.

Enhance existing voluntary product testing and certification program; require standardized quality and performance information for solar products; develop a warranty reinsurance program if needed.

Establish a Solar Bank to purchase, and commit to purchase, subsidized and unsubsidized residential loans made by private lending institutions, and to guarantee loans and leases.

### Industrial Sector

30% tax credit or expensing for solar equipment.

### Utility Sector

Where appropriate, require the REA to allocate an increasing percentage of its loans to solar energy systems. Where such loans are precluded by existing law, modify the Rural Electrification Act or establish a Rural Energy Development Fund for solar investments, to be administered by REA. Alternatively, DOE could provide supplemental funding.

OPTION 2 INITIATIVES  
(Continued)

Utility (Cont.)

The President would request state public utility commissions to encourage or require conservation and solar energy.

Develop plans to maximize hydroelectric generation at existing Federal dam sites, and to allow Federal power generation and marketing agencies to make use of the broad range of solar technologies.

Government Sector

Federal Operations

Require all new civilian Federal facilities\* to use passive solar design and the maximum amount of active solar. If OMB criteria are not changed as per Option 1, DOE could fund the difference between the cost satisfying these criteria and the actual cost for selected applications.

Use active solar systems in Postal Service facilities and other high visibility Federal buildings.

State and Local

Provide an additional \$15 million per year to give higher priority to solar energy planning in State Energy Management Program.

RD&D

Expand funding and emphasis in FY 1980 RD&D budget on near term technologies and technologies that displace oil and gas. Give consideration to reprogramming of DOE FY 1979 energy RD&D funds, consistent with the FY 1980 budget emphasis.

---

\* DOD facilities are addressed by the Military Construction Authorization Act.

## OPTION 3 INITIATIVES

### Residential/Commerical

\$1000 tax credit for builders exceeding BEPS standard by 40-80%. Mandatory passive solar if 80% of new dwelling units do not meet goals by 1987.

A national goal will be established to have 10 percent of all dwelling units to have active solar heating and hot water systems by 1987 and to have 25 million combined (hot water and heating and/or cooling) systems by 2000. Mandatory program if program goals not met by 1987; tax credits continued for combined systems under mandatory program if other fuel subsidized.

Federal coordination of private sector standards development testing, and certification; grants for private standard organizations; flexible standards for Federal procurement; certification of on-site systems; warranty insurance program.

Increased funding to states for consumer protection and energy planning.

### Industrial

50% tax credit for industrial process heat, phased out beginning in 1985.

30% tax credit plus rapid write-offs for solar manufacturing equipment.

5% mandatory gasohol by 1985; 20% by 2000.

### Utility

Non-discriminatory pricing for solar and renewables; state rate proceedings for solar energy users; stronger DOE right of intervention; elimination of tax advantages for municipal utilities that do not comply with solar rate reforms.

10% of new electric capacity must be renewable in each load area by 1985; 60% by 2000.

OPTION 3 INITIATIVES  
(Continued)

Utility (Cont.)

15% of all gas through interstate pipelines must be from renewable sources by 2000.

Government

Renewables supply 7.5% of energy needs for existing Federal buildings by 2000.

Expand State commercialization efforts; increase Federal funding for states by \$100 million per year.

Expand Federal procurement from photovoltaics to all solar products and use for foreign non-nuclear energy assistance programs.

RD&D

Increase funding to double FY 1980 level by 1982, and spend \$18 billion cumulatively through 1985.

Employment

Increase funding for solar job training by \$180 million per year.

TAB A

TAB B

## TAB B

FEDERAL SOLAR PROGRAMS\*  
(Budget Authority and Tax Expenditures, \$ in millions)

	FY 1975	Ford Budget 1978	FY 1979	Proposed 1980
<u>Tax Credits</u>	(--)	(--)	(97)	(170)
NEA Solar Tax Credits	--	--	88	74
Energy Security Fund Solar Tax Credits**	--	--	9	96
<u>DOE Direct Solar Programs</u>	(41)	(306)	(556)	(615)
Market Development, Training and Planning	1	9	19	32
Demonstrations (primarily heating and cooling and process heat)	7	30	107	74
Heating and Cooling Systems Development	6	25	41	47
Low Head Hydroelectric	--	--	28	19
Photovoltaics	8	51	106	130
Wind Energy	3	26	62	67
Solar Thermal Electric	12	122	102	121
Ocean Thermal	3	26	39	35
Biomass	1	17	43	57
Solar Energy Research Institute Construction	--	--	3	27
Other Direct	--	--	6	6
<u>DOE Indirect Solar Programs</u>	(--)	( 1)	(34)	(50)
Solar Basic Research	--	--	16	24
Solar Storage	--	1	1	5
Solar on Electric Utility Grids	--	--	7	10
Solar Satellite Program (DOE/NASA)	--	--	7	8
Solar Environmental Assessment	--	--	3	3
<u>Other Federal Programs</u>	(--)	(51)	(74)	(127)
Small Business Administration	--	--	5	14
Department of Agriculture	--	17	22	27
Agency for International Development	--	14	16	42
Tennessee Valley Authority	--	--	8	16
Community Services Administration	--	--	3	3
Federal Buildings Investments	--	20	20	23
<b>TOTAL, FEDERAL SOLAR PROGRAMS</b>	<b>41</b>	<b>358</b>	<b>761</b>	<b>962</b>

\* Does not include some \$311 in loans, grants, loan guarantees and technical assistance proposed to be reprogrammed by several agencies during the period from FY 1979 to FY 1982 for small scale alcohol and hydropower plants as part of the recent Rural Energy Initiatives.

\*\* Expenditures are contingent on enactment of the windfall profits tax and establishment of the Fund.

TAB C



EXECUTIVE OFFICE OF THE PRESIDENT  
COUNCIL ON ENVIRONMENTAL QUALITY  
722 JACKSON PLACE, N. W.  
WASHINGTON, D. C. 20006

June 4, 1979

MEMORANDUM FOR THE PRESIDENT

FROM: Gus Speth  
Acting Chairman *Gus Speth*

SUBJECT: Solar Policy Decision Memo

The solar policy decision memorandum based on the interagency Domestic Policy Review will be submitted to you this morning.

You have an historic opportunity -- to lead the United States into an energy future based predominantly on renewable energy resources. Putting the country firmly on the road to a solar future can be one of the outstanding achievements of your Administration.

THE WHITE HOUSE  
WASHINGTON

6/8

Too Late .

ID 792487

THE WHITE HOUSE  
WASHINGTON

XC: FM ✓  
SL ✓  
HL ✓

DATE: 05 JUN 79

FOR ACTION: FRANK MOORE (LES FRANCIS) JODY POWELL  
JERRY RAFSHOON

INFO ONLY: THE VICE PRESIDENT HAMILTON JORDAN  
JACK WATSON ANNE WEXLER  
JIM MCINTYRE CHARLES SCHULTZE

SUBJECT: EIZENSTAT MEMO RE SOLAR ENERGY POLICY

+++++  
+ RESPONSE DUE TO RICK HUTCHESON STAFF SECRETARY (456-7052) +  
+ BY: 1200 PM THURSDAY 07 JUN 79 +  
+++++

ACTION REQUESTED: YOUR COMMENTS

STAFF RESPONSE: ( ) I CONCUR. ( ) NO COMMENT. ( ) HOLD.

PLE

*Thomson: Isn't this supposed to be  
in conjunction w/ EPA & Interior?*

Free: Congressionally, the solar bank is a must and without  
it we will gain little. If we do move on this, it must be coordinated  
closely with the Congressional leaders in the Solar Caucus. It could  
be the action that brings "all" the liberals back to the party.

C  
/

Domestic Policy Review of  
**Solar Energy**

Electrostatic Copy Made  
for Preservation Purposes

A Response Memorandum to  
The President of the United States