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SPACECAUSE LEGISLATIVE ALERT  
ON  
SPACE SOLAR POWER

What is likely to be the most important vote of the year concerning Space Solar Power (SSP), also commonly referred to as Satellite Power Stations, is expected to occur in the House NASA Appropriations Subcommittee on Thursday, June 18.

We need for you to call the office of the Chair of this subcommittee, Congressman Jerry Lewis, and recommend that the Space Solar Power program be given \$25 million for fiscal year 1999.

Lewis is generally friendly towards space. He is a member of the Spacecause Board of Governors. I discussed the SSP issue with him personally two weeks ago. He was receptive, but non committal. He is on the edge and could go either way, which makes your help particularly important.

Calls need to be made by 5:00 PM Eastern Standard time, Wednesday, June 17. The number for Lewis is (202) 225-5861. It is important to be friendly and polite. We need for Lewis to be a strong supporter of this program, because he becomes convinced that it is good for the nation.

If you do only one thing to support SSP this year, this is it.

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For those who want more information about SSP, I refer you to the article below. This is a slightly altered version of an what appeared in the May/June 1998 issue of Ad Astra.

OUR NEW SATELLITE SOLAR POWER CAMPAIGN  
By Mark Hopkins

Spacecause has launched a new campaign to obtain funding for Satellite Solar Power (SSP). This concept involves the generation of electricity for use on Earth from solar energy gathered by satellites in space. It has the potential of becoming the major source of humanities electricity and doing so in an environmentally benign fashion that goes a long way towards solving the problem of global warming.

Our last SSP campaign occurred during the late 70's. On a personal note, it was a combination of this campaign (which failed) and our successful effort to defeat the infamous anti free enterprise Moon Treaty, that led to my serious involvement in space politics. I built our first phone tree as part of the SSP campaign and this in turn led to the creation of Spacecause and Spacepac.

There are many possible ways of using satellites to take solar energy in space and convert it to electricity for use on Earth. Most scenarios use solar cells on satellites in Earth orbit to generate electricity from the sun's energy. This is then converted into electromagnetic energy which is beamed to Earth where it is converted back into electricity.

The world wide demand for electricity is expected to double in the next two decades and then double again in the following two decades. The dominant types of new electricity generating capacity for meeting this demand have for a long time been expected to be either nuclear or coal. Most other options have either a small potential compared to the demand (wind, geothermal, hydro) or require prohibitively costly energy storage (ground based solar). More recently, the environmental acceptability of nuclear has been increasingly called into question and the problem of global warming has put constraints on the growth of fossil fuel use, including coal.

The truth is that currently no generally accepted solution to the electricity needs of the next century exists.

Following a successful research program, private enterprise could develop SSP on a scale sufficient to solve our energy problem in an environmentally benign fashion that does not contribute to global warming. This would involve dramatically more activity in space than in any other currently contemplated space program. It is little wonder that Gerard O'Neill saw SSP as one of the keys to the obtainment of Space Settlements.

The fundamental political mistake of the SSP proponents in the late 70's was that research was allowed to revolve around a well specified reference scenario that was chosen primarily to demonstrate technical feasibility. Electricity produced in this scenario was not cost competitive with other electricity generating options, such as the use of coal. Despite efforts by program proponents to clarify that additional research was needed to find lower cost scenarios, critics, concentrating on the poor economics of the reference system, were able to effectively shut down further U. S. research.

In 1996 the U. S. government spent \$220 million on fusion. Expenditures at a level within the same ballpark as this have been made on fusion research for a long time and can be expected to be made for many years into the future.

These expenditures are well justified because of the potential that fusion holds.

A year ago, NASA completed a "Fresh Look" study of SSP. This time the reference system mistake was not made. Instead, some 30 concepts were examined in varying degrees. SSP, looked at as a menu of scenarios, in the same way that fusion research considers a menu of scenarios, is economically very attractive.

The glaring flaw in this nation's energy research program is that the promise of SSP is at least as great as that of fusion and yet no money has been spent on this option since the late 70's. What is needed now is what was needed then, a research program aimed at finding a scenario that is both technically and economically feasible.

Spacecause is fighting to initiate new SSP research funding. The political impact of NASA's "Fresh Look" makes this possible, but we need your help.

With hard work and a little luck, we will be able to correct the mistake that this nation made in the late 1970's and initiate an SSP program that will solve many of humanities electricity generation problems and greatly accelerate humanities drive into space.