SPEECH BY CONGRESMAN PAUL TSONGAS - JUNE 18, 1978

TO BE TELECOPIED SATURDAY LATE AFTERNOON

"OUR ENERGY FUTURE"

I. SEVERITY OF THE ENERGY PROBLEM

-OUR INCREASING DEPENDENCE ON FOSSIL FUELS RESULTS IN A SEVERE "IMPENDING CRISIS"

-OIL IMPORTS CONTINUE TO RISE
7% in 1960
12% in 1970
ALMOST 50% TODAY

-OUR ECONOMY BEGINS TO FEEL THE EFFECTS OF A 45 BILLION DOLLAR YEARLY TRANSFER TO FOREIGN NATIONS FOR OIL.
- INFLATION
- DECREASED VALUE OF THE DOLLAR

-OUR NATIONAL SECURITY AND THAT OF OUR ALLIES IS SERIOUSLY THREATENED BY THIS DEPENDENCE

-TODAY ABOUT 60% OF OUR ENERGY CONSUMPTION IS BASED ON OIL AND NATURAL GAS

-SOME AREAS ARE ESPECIALLY HARD HIT:

-NEW ENGLAND (88% OF ITS OIL IS IMPORTED)

-COUNTRIES WITHOUT THEIR OWN PETROLEUM RESERVES (ISRAEL, JAPAN, ETC.)

-WE FACE IMPENDING SHORTFALLS IN PRODUCTION, AS SHOWN BY:

-NATIONAL ACADEMY OF THE SCIENCES (THE ENTIRE WORLD SUPPLY WILL BE SERIOUSLY DEPLETED IN THE NEXT 25 YEARS)

-WORKSHOP ON ALTERNATE ENERGY STRATEGIES (WAES-MIT)

-C.I.A. - OUTLOOK ON THE INTERNATIONAL ENERGY SITUATION

-FORD FOUNDATION

-OECD (ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT)

-WHAT THE FUTURE HOLDS:

-IF CONSERVATION OF ENERGY IS INEFFECTIVE, PROJECTED WORLD DEMAND FOR OIL WILL REACH PRODUCTIVE CAPACITY BY THE EARLY 1980's AND SUBSTANTIALLY EXCEED CAPACITY BY 1985.

-NO MATTER WHAT SOME OF OUR ALLIES SUCH AS SAUDI ARABIA DO, THIS SITUATION OF LIMITED SUPPLIES MEANS PRICES WILL RISE SHARPLY.

-IN THE NEXT FEW YEARS, WE FACE AN ILLUSION OF CHEAP ENERGY:

-INCREASED PRODUCTION FROM THE NORTH SEA AND ALASKA

-SAUDI ARABIA WILL HAVE EXCESS CAPACITY AND CAN CONTINUE TO HOLD DOWN OIL PRICES IN SPITE OF PRESSURE FROM OTHER OPEC NATIONS.

-GOVERNMENT ACTION, SUCH AS THE RECENT D.O.E. RULING ON RESIDUAL OIL ENTITLEMENTS (ANNOUNCED ON THURSDAY, JUNE 15,1978) MEANS CHEAPER OIL COSTS FOR THE SHORT RUN.

-THE LACK OF A NATIONAL URGENCY TO SOLVING THE PROBLEM

-CONGRESS AND ITS INABILITY TO COMPROMISE ON A NATIONAL ENERGY PLAN (OVER ONE YEAR AFTER IT WAS PROPOSED).

-LACK OF PUBLIC ACCEPTANCE THAT THERE IS A PROBLEM

-LACK OF EFFECTIVE CONSERVATION EFFORTS

-LACK OF THE HIGHEST PRIORITY FOR DEVELOPING ALTERNATIVE ENERGY SOURCES.

-WHAT SHOULD THE GOVERNMENT DO TO SOLVE THIS PROBLEM?

-PROVIDE SECURITY AGAINST FOREIGN SUPPLY INTERRUPTION (BY CREATING A STRATEGIC PETROLEUM RESERVE)

-ENCOURAGE NEW ENERGY TECHNOLOGIES BY FUNDING RESEARCH, DEVELOPMENT AND DEMONSTRATION EFFORTS

-LIMIT ENVIRONMENTAL PROBLEMS OF NEW ENERGY SOURCES

-ADOPT POLICIES (I.E. CONSERVATION) WHICH WOULD REDUCE THE ENORMOUS TRANSFER OF WEALTH FROM THE U.S. TO OPEC NATIONS.

II. ENERGY OPTIONS WE FACE

-INCREASED COAL COMBUSTION

PROBLEMS: INCREASED "GREENHOUSE EFFECT" DUE TO CARBON DIOXIDE

MINING AND DESTRUCTION OF LAND

OTHER ENVIRONMENTAL PROBLEMS (SOOT, WASTE HEAT)

-NUCLEAR ENERGY

MAY BE NECESSARY IN THE SHORT RUN DESPITE ITS MAJOR PROBLEMS:

STORAGE AND DISPOSAL OF NUCLEAR WASTE MATERIAL

UNKOWN COSTS OF DECOMMISSIONING REACTORS

RISKS OF NUCLEAR PROLIFERATION, PLUTONIUM CYCLE, BREEDER REACTORS, ETC.

SIGNIFICANT ADVANTAGES TO COAL:

LAND USE (MUCH SMALLER)

SIGNIFICANTLY LESS AIR POLLUTION

-RENEWABLE ENERGY SOURCES

-GEOTHERMAL ENERGY

-FROM STEAM OR HOT DRY ROCKS

-TECHNOLOGY IS STILL BEING DEVELOPED AND SHOULD RECEIVE HIGH PRIORITY

-TOTAL INSTALLED GLOBAL CAPACITY WAS <u>ONLY</u> 1,400 MEGAWATTS in 1975.

-GOOD POTENTIAL IN AREAS WHERE IT IS AVAILABLE, PARTICULARLY ON THE WEST COAST (CALIFORNIA, OREGON, IDAHO)

-MINIMAL ENVIRONMENTAL IMPACT

-HYDROELECTRIC POWER

-TODAY SUPPLIES ABOUT 8% OF OUR ELECTRICAL NEEDS.

-MOST FUTURE EXPANSION FOR HYDROELECTRIC WILL BE IN DEVELOPING NATIONS WHERE ONLY ABOUT 4% OF THE POTENTIAL IS DEVELOPED

III. ENERGY AS AN INTERNATIONAL ISSUE

-WE MUST BEGIN TO LOOK ABOVE LOCAL AND REGIONAL INTERESTS TOWARDS THE GLOBAL ENERGY PICTURE

-RELATIONSHIPS BETWEEN OUR ENERGY SUPPLY AND OUR NATIONAL SECURITY

-NEED FOR A STATEGIC PETROLEUM RESEERVE

-INTERNATIONAL RELATIONS, THE MID-EAST, ETC.

-POTENTIAL FOR THE USE OF ALTERNATIVE ENERGY TECHNOLOGIES IN DEVELOPING COUNTRIES

-EXPERIENCE IN PEACE CORPS IN ETHIOPIA

-NEED FOR POWER FOR VARIOUS APPLICATIONS

-IRRIGATION
-WATER PUMPING
-AGRICULTURAL USES
-COMMUNICATIONS

-WHY SOLAR ENERGY IS ATTRACTIVE

-DECENTRALIZED
-NON-NUCLEAR (NO PROLIFERATION)
-NO LARGE TRANSMISSION NETWORKS NEEDED
-WELL SUITED ENVIRONMENTALLY
-ECONOMICALLY FEASIBLE

-ADVANTAGES FOR EXPORTING SOLAR ENERGY TECHNOLOGY:

-REDUCE THE WORLD DEMAND FOR OIL

-IMPROVE INTERNATIONAL RELATIONS

-DECREASE DEPENDENCE OF ONE COUNTRY ON ANOTHER - ALL HAVE THE SAME ACCESS TO THE SUN

-IMPROVE THE U.S. BALANCE OF TRADE

-INCREASES PRODUCTION OF SOLAR DEVICES MEANING LOWER COSTS - AND SPEEDING UP THE DOMESTIC APPLICATIONS AS WELL.

-STEPS IN THIS DIRECTION:

-TSONGAS SOLAR CELL AMENDMENT CALLING FOR THE DEPARTMENT OF ENERGY TO DO AN EXTENSIVE STUDY OF POTENTIAL FOR EXPORT OF SOLAR CELLS TO FOREIGN COUNTRIES. PASSED IN SEPTEMBER, 1977. EARLY REPORTS INDICATE THAT BY 1990, AS MUCH AS 60 to 70 % OF OUR DOMESTIC SOLAR CELL OUTPUT WILL GO TO FOREIGN COUNTRIES.

-RECENTLY COSPONSORED AN AMENDMENT ASKING THE DEPARTMENT OF COMMERCE TO DO A TWO-YEAR EXTENSIVE MARKET SURVEY OF THE POTENTIAL FOR EXPORTING ALL SOLAR ENERGY TECHNOLOGIES

-FURTHER STEPS NEEDED:

-EVALUATE THE POTENTIAL NEED OF THE FINANCIAL AND TECHNICAL RESOURCES OF: AID, WORLD BANK AND REGIONAL DEVELOPMENT BANKS RELATING TO THE DEVELOPMENT OF SOLAR ENERGY IN LESSER DEVELOPED COUNTRIES.

-WHAT INTERNATIONAL COOPERATION COULD DO:
-BILATERAL (JAPAN, SAUDI ARABIA)
-MULTI-LATERAL (UN, IEA, NATO)

IV. SUMMARY - OUTLOOK FOR THE FUTURE

- TREMENDOUS POTENTIAL FOR RENEWABLE ENERGY SOURCES IN THE TRANSITION AWAY FROM FOSSIL FUELS.

- THE NEED EXISTS FOR LONG RANGE ENERGY PLANNING, LOOKING TWENTY TO FIFTY YEARS INTO THE FUTURE, IN ORDER TO PLAN FOR CHANGES IN ENERGY SUPPLY AND DEMAND. RECENTLY INTRODUCED THE ENERGY TECHNOLOGY AND PLANNING ACT OF 1978 WHICH PROVIDES FOR THE PLANNING OF LONG RANGE ENERGY STRATEGY.

- THE NEED ALSO EXISTS FOR PUBLIC ACCEPTANCE OF THE ENERGY PROBLEM AND SUPPORT OF EFFORTS TO SOLVE IT.
-CONSERVATION
-DEVELOPMENT OF NEW SOURCES

ENERGY IS THE CHALLENGE OF THE 1980's!

TO PARAPHRASE ONE GEORGE ALLEN, FOR SOLAR ENERGY, THE FUTURE IS NOW.