REMARKS FOR CONCORD CHAMBER OF COMMERCE
(Congressional Action Committee Luncheon Meeting
Cabarrus Country Club, August 14, 1979 at 12:15)

I am pleased to be here with the Concord Chamber of Commerce and particularly pleased that Gabe Stewart and Kent Prewitt invited me here today in connection with your Congressional Action Committee.

August, by law, is a recess period for the Congress. The House of Representatives has taken recently to calling it a "district working period". I call it a necessary and welcome break from Washington, D.C. so that we in Congress can get back where we

belong more often - in our states or districts, with our constituents. Thomas Jefferson 200 years ago envisioned something that most unfortunately we have passed by in becoming such a large, developed and complex country, namely, a nation of self-reliant, yeoman farmers on a human and workable scale.

In Jefferson's day, Senators and Congressmen spent the majority of their time at home with the people. I welcome the opportunity to do just that today and throughout this month.

Perhaps the single factor which most helped this nation to develop vastly beyond any scale which Jefferson could have imagined was and is an abundance of domestic energy sources and the know-how to harness and use them. First, our water or hydro-power, in countless watermills in early America; then, our seemingly endless wood resources, for train, boat and industrial boiler fuel in the 19th century; then coal, King Coal, for transportation, heating, industrial and electrical generation needs until it was displaced by oil and natural gas in the middle of this century, once

the Texas, Oklahoma and Louisiana fields were discovered and developed.

In 1979, we still find ourselves with an abundance of domestic energy sources, even if certain articles in the newspaper and programs on the television would have you believe otherwise. We sit on about 40 percent of all the known coal deposits in the world. We have enough uranium ore to supply the needs of our existing and planned nuclear power plants for the foreseeable future. Our oil and natural gas deposits - both those under production and in reserve -

should continue to supply us at the present rate well into the next century and this is without considering any new discoveries, such as another Alaska North Slope or significant new offshore oil and gas.

American technology, in the midst of all our present energy worries and deliberations, is something we can easily lose sight of. It is easy to overlook the gigantic, efficient hydro-electric projects we have around the country: TVA in the Southeast; Niagara and the St. Lawrence Power Project in the Northeast; Boneville, Hoover, Coulee Dams in the West, to name

but a few. Moreover, we are adding to these, albeit more slowly than in the past and perhaps with a better environmental sensitivity than we knew 40 years ago. TVA's additions and the planned Lincoln-Dickey hydroelectric project in central Maine come to mind. Nuclear power, Three Mile Island aside, is contributing 12 percent of our electricity right now, and I believe efficiently, economically and safely so. In the Carolinas, the figure is significantly higher, at about 30-35 percent, with Duke Power Company and Carolina Power and Light recognized in the nation for their

management and leadership in the nuclear power field. Planned additions in nuclear-generated plants would bring the country to about 20 percent nuclear-powered electrical supply by 1990, with the completion of some 80 plants now under construction or in the application process, as compared to 72 nuclear plants presently operating.

Coal, our most abundant energy resource in America, is playing an increasing role in electricity generation. The Congress in 1978 determined that new electrical generation should not come from oil,

but from coal. This policy is now being implemented, perhaps with occasional stops-and-starts because of environmental considerations, but nonetheless, with a clear direction. In North Carolina, the utilities took the lead some time ago and are now burning coal more than any other fossil fuel in their power plants. Natural gas, largely because of Congress' determination in 1978 to deregulate its price over the next 5 years, has become significantly more available, and for the short- to intermediate-term, at least, is giving us elbow room on fuel changeovers away from petroleum in

electrical utilities, industrial plants and large buildings.

You have all heard about "alternative" energy sources. These include geothermal; ocean current, sometimes called ocean thermal; solar and wind. In this country, each has significant, even great potential. Geothermal energy is, literally, the heat of the earth. On the West Coast, where unusually high temperatures are found at relatively shallow depths of the earth, engineers have successfully brought this heat energy to the surface economically. Northern California, for example, receives about 7 percent of its electricity

from this source. The U.S. Department of Energy is now exploring areas in the East where temperatures at accessible depths are moderate rather than hot, yet still hold real potential. North Carolina's Piedmont is one of these areas.

Another "alternative" energy source is small-scale hydro-electric power. A small hydro site is defined as an existing dam - a mill pond, a lock on a canal, a flood control impoundment - with a developmental potential of 15 megawatts of electricity or less.

Fifteen megawatts would provide an energy source for about 3,000 families at summer peak periods. Numerous sites exist throughout the East for this use and when costs are calculated, they come out favorable to new coal or nuclear capacity. Furthermore, the use of existing dams involves no new environmental impact. We have to remind ourselves that this is where we started with power generation in this country in 1882; the first hydro plant in the U.S., in Appleton, Wisconsin, was producing electricity, even if only 200 watts that could be transmitted but one mile. Our

allies in Europe, particularly Germany, continue to use these small but significant systems very effectively throughout their countries.

Solar energy, to heat and cool space, to heat water and to convert into electricity, is particularly noteworthy to me, since Congressman Steve Neal of North Carolina's 5th District and I earlier this year introduced in the Congress companion bills to create a Solar Energy Bank. The President, in his Solar Energy Message to the Congress in June, embraced our ideas enthusiastically, so much so that Steve and

I were able to introduce in the Congress on behalf of the President his Solar Bank Act in late July. What solar energy offers to a homeowner or a businessman is a chance to do something for himself in energy savings that does not involve discomfort or change in lifestyle, or economic sacrifice. Solar collectors or panels for hot water heating, for example, replace electricity, natural gas or oil a homeowner would otherwise have to burn. The solar energy source is endless, and without cost, beyond the price of the initial installation of equipment. Solar isn't owned

by OPEC or subject to any fuel surcharge, at least as far as I know. It's also an example of where decision-making is by the individual - simply, to install it, or not, and where space-age technology is brought "home", so to speak. Congress has been very receptive to the Solar Bank idea this year. In my own Senate Banking Committee, for example, there is agreement that a Bank concept, with its low-interest loans to homeowners as an incentive for installing solar equipment, is the right way to go, that by utilizing appropriate incentives - tax credits, warranties,

low-interest loans - we can achieve significant results.

Let me speak to another current energy policy matter: the so-called "syn-fuels", synthetic oil and gas manufactured from coal. I believe that we in the Senate, after a month of extensive hearings in three of our committees and from all points of view, do not want to see the country prematurely committed to a crash program to build a vast system of synthetic fuels plants.

There is a strong case for building pilot plants to test and demonstrate the synthetic technologies on an

industrial scale. But there's no case for building a lot of similar plants simultaneously and attempting to get into massive production fast by skipping the development phase.

The first pilot plants will have to resolve several kinds of questions. While synthetic fuel plants are now operating in several other countries, none of them is nearly as big as those that the federal government is now considering. To increase scale, in one huge jump, is no simple matter. Nor can anyone be sure

about the environmental effects. These processes are sensitive to the types of coal fed into them. Pollution measurements taken at a small German plant using European coal will not necessarily provide a useful guide to the performance of a large American plant using Appalachian coal.

Then, there is the matter of cost. Estimates of production costs are hotly debated among the specialists, and the only way to settle the argument is to build and run a plant. If the country now undertakes a large number of first-generation plants

together, there will be no opportunity to take advantage of that experience. A crash program risks locking the country into expensive mistakes.

The sheer cost and complexity of the undertaking makes it unlikely that coal-based synthetics can be produced in any significant volume before the 1990s. To attempt to force the pace will threaten to divert resources - skilled labor, equipment and money - away from the convential drilling and mining that is a much better bet for the near term. Oil and gas from coal are possibilities that deserve vigorous development.

But for the decade immediately ahead, this country's energy balance will depend less on synthetic fuels than on simpler measures, such as I have mentioned earlier.

I firmly believe that with reliance on ourselves and our ingenuity and technology, as Jefferson espoused, we will resolve the present energy dilemmas of America. The President's firm and decisive action to impose a quota on foreign oil should singal to the country, to our allies and to OPEC, our determination to stop both an increasing dependence on overseas oil and a growing balance of payments deficit. More importantly, the

challenge to the American people and to American industry is now clear - the better development and wiser utilization of America's abundant energy resources. In North Carolina, we have abundant wood, peat and solar resources. We are even developing wind power, as witnessed by the recent start-up of the world's largest windmill in Boone, to generate 2,000 kilowatts of electricity - enough to service the needs of 3,000 homes. There are and will be "fits-and-starts" in all this, such as the recent gasoline lines and the inflationary impacts

of OPEC price hikes. Nonetheless, I believe this nation can achieve self-reliance in energy in the foreseeable future by a proven combination of our American technology and American energy resources.