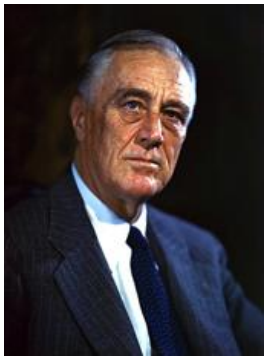
# Address to the Third World Power Conference, Washington, D.C.





## Franklin D. Roosevelt

32nd President of the United States: 1933 – 1945

September 11, 1936

Ladies and gentlemen of the World Power Conference:

I desire to add my personal greeting to the official greeting which it has been the pleasure of the Government of the United States of America to extend to you. The United States considers it an honor and a privilege to be the host of the Third World Power Conference and of the Second Congress of the International Commission on Large Dams.

The World Power Conference and its associated International Commission are very notable institutions.

It is one of the achievements of our generation that business men, engineers, lawyers, social workers and other people of affairs should meet in international assemblies not merely for promotion of the abstract sciences and techniques in which they may respectively be engaged, but for exploration of the application of these to national welfare and betterment of the conditions of human life.

There are very special reasons why we in the United States prize the opportunity to provide the forum for discussion of the problems which are being presented to your Conference.

We are relatively a young Nation, facing now the problems of matured national life. Many among you represent Nations of far longer experience.

We have a strong conviction that any success we may have in organizing the household of this Nation, now come of age, will depend in large measure on the degree to which and the manner in which we make available the natural energies which have been given us in great abundance. We shall therefore study the records of your proceedings with painstaking care.

For a century, for longer than that, population in the United States has increased, both naturally and by immigration, at an exceptional rate; but recently there has set in a decline in the rate of increase. Experts in vital statistics now calculate that we shall have reached a point of stationary population within approximately the next twenty-five years.

For two centuries the dramatic aspect of national growth was territorial expansion—successive waves of human beings from the Atlantic to the Allegheny Mountains, to the Mississippi Valley, to the prairies, to the Rocky Mountains and at last to the Pacific Coast. The addition of improved lands has come to a stop; in fact, in many parts we have overdone it and must restore some of them to more natural conditions.

With these have appeared other evidences of maturity. For a period following the establishment of the Union about 85 percent of our people lived on farms; today, however, nearly 75 percent live in cities and villages. During our earlier years the proportion of young people in the population increased much more rapidly than the proportion of old people. Today, for various reasons, the proportion of old is increasing more rapidly than the proportion of young people.

With such changes have come also changes in social habits and in points of view.

Under conditions of maturity of a Nation there is, justifiably, an increasing concern on the part of nearly every citizen for his economic security. In the earlier days of our Nation's youth there was no such dominating concern. As a people we could then be happy-go-lucky—a characteristic of youth.

National maturity requires that we have new points of view, and that we do some things at least in different ways.

This matter of economic security, I take it, is not to be achieved by aiming for restriction of national income—real national income-but by aiming for more abundant and more widely distributed national income. A satisfying standard of living and security for a national household of nearly one hundred thirty million people are to be realized only by high productivity, broadly and equitably distributed, and wisely proportioned with respect to its drain on national natural resources and to the variety of human wants that it is destined to satisfy.

It is for such reasons that your deliberations are of significance to me, and will be followed with minute attention. Your scientific and engineering genius is destroying one world—the world of relative scarcity—but has it yet undertaken to create the new world of abundance which is potential in your command over natural energies? Is creation of greater abundance dependent on further scientific and engineering achievements so much as on suitably organizing and utilizing the engineering already incorporated into your technique?

These two questions, more simply stated, resolve themselves into this: Are you and I paying enough attention to "human engineering"?

Granted, there are many aspects of the problem. For example, it is possible to conceive—for us to conceive at least—that the conversion and application of energy, in the coming generation, will be so directed that half of the population can provide the basic machine-made products necessary for the welfare of the whole of the population. We can conceive that this would mean that the people between twenty and fifty years of age may be able to produce the basic commodities for themselves and also for all others below and above those ages.

If that condition should arise, it is the duty of you who would be so greatly responsible for it to think what would be the effect on our leisure, our culture and our way of life. May I respectfully suggest that the answer should not be left wholly in the hands of bankers, Government officials or demagogues?

In anticipation of all manner of possibilities and simultaneously with the study of their far-reaching results, we can and must take every preparatory step now within our power.

Fundamental among these is conservation of resources, their evaluation in terms of the services they may render, including the conditions under which these may be rendered, and their utilization in the light of such evaluation. Although it is a principle of physics that energy cannot be destroyed, it has been revealed by experience that man can destroy those particular forms of energy in which energy is usable by him. In such an evaluation the physical and mental energies of human beings must be included with coal, petroleum, gas, electricity and many other forms.

To make such an evaluation, a higher form of accounting than any yet developed by commerce and industry appears to be essential. It must be a form of accounting that takes social values, now left to mere assumption, into its calculations and measures them. If a Nation were to establish in its social balance sheet a capital account for its energy assets, and were to charge against that account the water that it permits to go unused, as well as the coal and the .oil that are used; or if the petroleum industry were charged with the gas that it permits to go to waste—a quantity, by the way, that is enormous in these United States; then perhaps all citizens would perceive that public policy and private conduct in respect of our natural resources should be quite different from what they now are.

It seems to me, as a layman, that the outstanding gift of modern science and engineering to society is greater knowledge of the characteristics of electric energy, together with a very substantial degree of command over it. Its flexibility is what makes electrical energy impressive; its transportability; its divisibility. The invention and adaptation to use of the steam engine was a great event in human history. It caused an industrial revolution. In a very large sense it remade the world. It created new social-industrial problems, many of which are still far from solution. It is not irrational to believe that in our command over electric energy a corresponding industrial and social revolution is potential, that it may already be under way without our perceiving it.

One of the social changes brought on by the invention and use of the steam engine was the concentration of workers into large factories and of people into large cities. We have not known what to do about it. Workers had to go to the steam engine, whose energy could not be divided into parts and sent out to them.

Now we have electric energy which can be and often is produced in places away from where fabrication of usable goods is carried on. But by habit we continue to carry this flexible energy in great blocks into the same great factories, and continue to carry on our production there. Sheer inertia has caused us to neglect formulating a public policy that would promote opportunity for people to take advantage of the flexibility of electric energy; a policy that would send it out wherever and whenever wanted at the lowest possible cost. We are continuing the forms of overcentralization of industry caused by the characteristics of the steam engine, long after we have had technically available a form of energy which should promote decentralization of industry. What is economically sound is to be determined by social accounting more than by our present methods.

I had occasion recently to visit the Great Plains area of the United States where the greatest drought in history has thrown an oppressive burden upon the people of those States. In planning for the better use of those millions of acres, power is a factor of vital importance— power to be used primarily for the conserving of the water supply—power, the application of which is essential not only to the cities, but to the farms and ranches of that whole area.

I speak of power in its many forms. It may be true, as I understand some of the authorities among you prophesy, that the world's oil reserves, because of their limited supply, some day may have to be apportioned to specific uses. It may be true that new applications of alcohol, processed from the products of the soil, may increase the usefulness of the internal combustion engine; but in any event it seems most probable that a greater use of electrical energy is absolutely essential in every sector, rural as well as urban, in the United States, and, indeed, in the whole world.

A sound and courageous public policy will lead toward its consummation.

One who considers the matter with forthright vision cannot convince himself that public policy for promotion of availability of electric energy can really harm the electric industry that exists today. It would give opportunity for that industry to add to achievements already great. The more integrated its sources of energy, the less it would require of excess capacity and the lower would be its costs. The broader the base of consumers of a product that is now classed as a necessity, the lower would be its costs and the greater its stability. A great many years ago Dr. Steinmetz observed that electricity is expensive because it is not widely used, and at the same time it is not widely used because it is expensive. Notwithstanding reductions in rates and increase of consumption since his day—which, by the way, have demonstrated the truth of his words— his observation still holds true. There is a vicious circle which must be broken, and a wise public policy will help to break it.

I still hold to the belief of two years ago, when I spoke as follows:

"We are going to see, I believe, with our own eyes electricity and power made so cheap that they will become a standard article of use, not only for agriculture and manufacturing, but also for every home within reach of an electric-light line.

"The experience of those sections of the world that have cheap power proves very conclusively that the cheaper the power the more of it is used."

These words were spoken at Grand Coulee. The Government of the United States has promoted the construction of several great reservoirs, which I trust that you will inspect on your grand tour, primarily for navigation or reclamation, but with incidental values for flood control and the regulation of stream flow. Among other incidentals is the generation of electric power. This may prove to be the force that breaks the vicious circle to which I have referred. If these are not sufficient, the influence of additional meritorious projects awaiting development can be added.

Two great dams of the Tennessee Valley Authority have been completed and are making their contribution to the public weal. Grand Coulee is far enough along to enlist your interest, as also is Bonneville of the Columbia River. At Boulder Dam on the mighty Colorado the gates were closed months ago; a great lake has come into being behind the dam; generating equipment has been installed in the power plant; and at this moment the powerful turbines are awaiting the relatively tiny impulse of electric current which will flow from the touch of my hand on the button which you see beside me on the desk, to stir them to life, to stir them into creative activity—to generate power.

Boulder Dam, in the name of the people of the United States, to whom you, Boulder Dam, are a symbol of greater things in the future, and in the honored presence of guests from many Nations, I call you to life!

Franklin D. Roosevelt, Address to the Third World Power Conference, Washington, D.C.
Online by Gerhard Peters and John T. Woolley, The American Presidency Project
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