ADDRESS OF GEORGE S. MESSERSMITH, CHAIRMAN OF THE BOARD OF THE MEXICAN LIGHT & POWER COMPANY BEFORE THE ROTARY CLUB OF MEXICO CITY AT THE WEEKLY LUNCHEON ON MAY 11, 1948, PRESIDED OVER BY MR. ITURBIDE, PRESIDENT OF THE BANKERS ASSOCIATION OF MEXICO.

It is a long time indeed since I last had the pleasure of meeting with you. I always feel myself at home among Rotarians wherever I may be, for some of you will recall that I have been associated more or less closely with Rotary almost since its inception and have followed its helpful activities in various parts of the world. In Mexico, as in the rest of the world, a great deal of water has run under the bridge since I last had the opportunity of meeting with you and there are many things of common interest on which I would have very much appreciated the opportunity of exchanging views with you. Today, however, I shall have to be very specific, as I have been asked to speak on a matter which is of such fundamental interest to everyone in Mexico and that is the more immediate situation with respect to electric power and the significance of this in the economy of the country.

It is little understood that in every country the demand for power has developed rapidly in recent years. Even in the most undeveloped countries the demand has increased and the more developed the industry and agriculture of the country and the higher the standard of living, relatively greater has been the increase in the demand for power. Startling and interesting figures to demonstrate this increase in power demand should perhaps be given you to bring out adequately how great this increase has been all over the world, but today in this respect, as in other observations I shall make, I will have to confine myself to asserting the bare facts as I wish to restrict myself to that period which you very properly allot to speakers during your luncheon hour.

There are certain salient and fundamental and unavoidable conditions and facts which have to be borne in mind in connection with the power problem and failure to take into account any one or all of these in any country is sure to result in an inadequate supply of power being available with its inevitable consequences. These fundamental considerations I will briefly and of course very inadequately because of the lack of time, endeavor to bring to your attention today.

Unless this demand for power in Mexico, as in other countries, is adequately met as the developing needs of the population and industry and the general economy of the country require there will not only have yo be restrictions on the present uses of power so as to bring about equitable distribution of that available, but there will be, depending upon the particular country, a complete or partial arrest of any industrial development, and in a measure, depending upon conditions in the respective countries, of any increase in agricultural production. In Mexico the problem will be a very real one for in the central plateau, which is the heart of the country, the power industry is now working at peak capacity, and this is in a large measure true in other parts of the country, and there is a backlog of domestic demand already existing and rapidly developing, as well as a rapidly ascending demand for industrial power,

In recent years the Mexican Government has been following a program of development of sound industry and of improvement in agricultural production. This wise policy has already had extraordinary results and both industrial and agricultural production have been increased in a measure that is unfortunately not adequately understood by all people in the country and abroad, and has had consequent results in the increase in the standard of living of the greater part of the population. This wise program which is still in its infancy but which is a very flourishing child carries within it great

promise for the future of the country. As I have already stated, this development in preceding periods had been slow and the demand for power for domestic and industrial and other purposes had developed slowly. Now the present development of the program has consumed the productive capacity of the power industry and the new program which has to be undertaken to provide new plant capacity has to be one of considerable magnitude the carrying through of which involves many serious and complicated problems.

In the first place there is the question of fuel. Owing to the lack of coal and the still inadequate supply of petroleum from the sources available within the country and the present development of these resources, water is the principal source of electric power and even in this respect the appropriate water supplies are in many cases far distant from the points of use of power. Hydroelectric plants require engineering and other works of such magnitude that the capital investment in such plants is almost always higher than for thermal plants and the planning of a hydroelectric plant and the carrying through of the appropriate works is usually a question of years. This means that the capital investment involved in new power plant in Mexico is very high.

We will examine briefly the principal problems involved in meeting the demand for electric power in Mexico.

There is the question of requipment for the plants. You are aware of the great pressure on production facilities in almost all countries for a wide range of materials and in no field is this more true than in the field of electrical equipment. Certain countries which in the past have been able to produce a certain amount of heavy electrical equipment for export are now not able to produce what they need for their own plants and the United

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States is the only country in which heavy equipment is available for the electrical industry in any amount. That industry in the United States, in spite of its great production capacity, will not be able to meet the demands off it from within the United States and from every part of the world. I may tell you that during the course of the next five years the electric power companies in the United States will have to spend over six billion dollars for newplant to meet the demand in that country alone. When it is taken into account that it takes a minimum of two to three years to build a large generator or turbine in even the finely equipped plants of the United States and that all the world is pressing for immediate delivery of electrical equipment, it is obvious that the demand for power in many countries cannot be met adequately as the needs develop for four or five years hence. The problem therefore which electric power companies have in securing the heavy equipment which they need is one which offers in some cases almost insuperable difficulties.

Whether it is produced in hydroelectric or thermal plants it means the installation of intricate, delicate equipment which because of its very nature is expensive. It means all sorts of accessory equipment, making possible the availability of high tension voltage produced in the form needed by various types of consumers, and expensive transmission and distribution systems. The capital investment in power plants is therefore high and relatively higher than in most industrial plants, and as I have already stated, in Mexico where most of the power necessarily is hydroelectric the initial costs are extraordinarily heavy as they require the building of dams, tunnels and other ingineering works. Any increase, therefore, in the power capacity

of the country requires a very considerable capital investment.

This capital in a country like the United States or Canada where the consumption of power is relatively high, has been easy to find, for the power industry regulated by law has been able to sell its bonds with long maturity to the public and through their rate structures have been able to earn a reasonable return on the capital investment permitting amortization in due course of the investment and the payment to the owners of the companies of a reasonable return on the investment. In such countries the bonds and stocks of private power companies are a favored investment by banks, insurance companies, trust funds and the general public. In the United States, therefore, where a minimum of six billion dollars will be needed in the form of new capital investment during the next five years, it will be possible for the companies to secure the necessary capital from private sources.

This situation, however, does not prevail in a number of countries where the power companies have not received that equitable and understanding treatment that the character of the services which they supply and the cost of that service involve. For this reason the private investment market in many countries where such situation exists is practically closed to public untilities including power. The private investor in no country will place his capital in an industry which does not offer a reasonable promise of a fair return on the investment. So far as government is concerned the capacity to which it can operate industry and public service at a loss or without a fair return on the investment is limited, because government in turn must seek its capital through borrowing from its people and cannot borrow from them except through forced levies (to which there is also a limit) without paying a reasonable return on the government securities which it

Mr Louis de suppose que copie de l'annerse. issues. This again involves a reasonable return on the capital investment, even though the property may be government owned and operated.

The Mexican Government and the power companies in Mexico have not failed to take adequate note of the developing need for power in the country and the imperative necessity for meeting it. Among the steps which have been taken is the enactment of the federal electricity law which regulates the electric power industry and which guarantees a reasonable return on the capital investment. This law enacted in 1939 is in process of implementation. This electricity law is in many ways similar to the basic legislation in most countries where the importance of the power industry in the economy of the country is recognized, but according to those who know the electric industry certain changes in and amendments to the law are essential if it is to serve as the basis for the stability and development of the eletric industry which the country needs. A nother important step by the Mexican Government has been the establishment of the Federal Power Commission in 1937, which in the few years of its life has shown constructive actuation and which has already been a helpful element in the power structure. The Mexican Government through its recent acts has shown that it recognizes that the power needed by the country cannot be produced alone either by the private companies or by the government, but that the activity of both Government and private companies in this field is essential if the necessary power is to be available and that there must be the closest collaboration between the government, through the Federal Power Commission, and the private companies in the planning and carrying through of programs to meet the power needs as they develop in particular areas.

As a result of this wise policy of the Mexican Government the Federal Power Commission has been giving close study to the needs for power in

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various parts of the country and together with the private companies,

Mexican and foreign, operating in various areas of the country, has been

studying in the most concrete form these programs for the particular areas.

Of this I cannot speak in detail, but this foresight onnthe part of the

government and the companies has not been adequately understood and I need

not emphasize that it is of the most fundamental importance, for without

such planning and such coordination between government and private industry

the power needs of the population and of the general economy cannot be met.

Of the broad programs which have been studied and developed by government and the private companies I cannot speak in any detail here; neither does it lie within my province. I wish to mention briefly, however, the position of the Mexican Light & Power Company in this problem. Together with the Federal Power Commission the Mexican Light & Power Company has studied the power needs for the next four years in the area which the company serves. It will be recalled that the Mexican Light & Power Company is the principal producer and supplier of power in the Federal District and surrounding states and produces and supplies almost all of the power except private that of a few very small/plants and that produced by the plant of the Federal Power Commission at Txtapantongo (which power is distributed by the Mexican Light & Power Company) in the central area. In fact, this company has produced and distributed, in 1947, (in spite of the restrictions which were enforced during two months) approximately 43 per cent of the electric energy produced in the whole country. The operations of the company system began in 1903 with a single plant and today it has sixteen, of which fifteen are hydroelectric and one termoelectric at Nonocloo. The company has/a total installed capacity in its sixteen plants of 303,650 kilowatts while the total installed capacity of the country is 963,000 kilowatts.

As a result of these studies by the Power Commission and the company as they relate to the Federal District and the central plateau agreement was reached that a definite program would have to be carried through in this area in the next four years by the company and by the Power Commission. This program involves the addition of a new unit at the present plant of the company at Lerma, the addition of a new unit at the present plant of the company at Necama, the building of a new hydroelectric plant at Patla, and the construction of athermal plant at Lecheria. The program of the Federal Power Commission during the same period in this area involves the completion of the Santa Barbara plant of the Commission now under construction and a new plant at Durazno. This program is considered by the Mexican Government and by the Federal Power Commission and by the company as the minimum program which has to be carried through within the next four years to meet the power needs as they may develop in that period and the various plants and units have been scheduled to enter into operation as the needs exist. Unless this program can be carried through there will have to be restrictions and inadequate capacity to supply power more particularly for the new industries under construction or projected for that period.

The carrying through of this program will depend upon the ability to secure materials in the world situation which exists and to which I have already made reference, and to the ability to secure the necessary capital within Mexico and abroad to carry through the projects of the company and of the Federal Power Commission.

With respect to the equipment, the Power Commission and the company have been taking the necessary steps to assure themselves, so far as production facilities permit in the United States and elsewhere, of this equipment and there is reasonable hope that the equipment will be available as needed.

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So far as the capital is concerned I would be lacking in frankness and what is owed to the Mexican economy and people not to set forth certain fundamental situations which have to be faced. I will speak only of the capital needs of the Mexican Light & Power Company, but the principal considerations apply to operations of government and private companies. It will need for the new units at Necaxa and Lerma and for the new plants at Patla and Lecheria a minimum of \$47,000,000 dollars for construction of the plants and the appropriate transmission, distribution and accessory facilities. In view of the increasing costs in recent months of labor and equipment elsewhere and in Mexico the sum needed may be somewhat larger. In addition to this the company will have to make a capital investment of \$8,000,000 dollars in the Tacubaya plant in the Federal District now under construction and of which I have made no mention today, as yet, and which plant is needed in order to meet the needs which will develop during this year and in the first half of 1949. I have already stated that the production facilities in the central plateau are loaded to capacity now and the Tacubaya plant, which is being constructed by the company with the collaboration of the Mexican Government through the Federal Power Commission, has been already found to be needed in addition to the four-year program already outlined, and all its six 5,000 kilowatt units should be in operation by July 1, 1949.

In short, the Mexican Light & Power Company will have a need of a minimum of \$55,000,000 dollars new capital to carry through the minimum program outlined and which is indispensable. Although a certain amount of this capital may be secured in Mexico and will have to be secured here more particularly for the local works, it is obvious that the greater part of it will, have to be secured outside the country. While private capital in Mexico is showing increased interest in investment in industry, and the mar-

ket for the securities of the Nacional Financiera through which agency of the government it has been aiding the program of industrial development has been growing, the private capital market in Mexico and the borrowing capacity of the government have necessarily to be limited by the degree of initiative shown by the private investor and by the degree to which the government can draw upon existing resources for capital within the country. Under the most promising circumstances it is obvious, however, that the greater part of the capital for the financing of the power plants during the next four years, whether constructed by government through the Federal Power Commission or by the Mexican Light & Power Company or by other private Mexican and foreign companies, will have to come from outside the country.

To you, who are so familiar with what is happening throughout the world, I need not say that there is no real source outside of Mexico for private or government capital needs other than the United States. It is regrettable but it has to be accepted as a fact and certainly, in view of what you read every day in the press concerning world developments in the political and esonomic field, I do not need to emphasize or to prove that the private and government capital markets in the United States are the only source from which Mexico or other countries can get the capital needed for industrial development or for certain public works.

So far as the private capital market in the United States is concerned it is closed at present for public utilities in Mexico and in certain other countries. As I have already stated earlier in these remarks, the conditions under which certain public utilities including power companies have been operating in certain countries have definitely closed for some years and for the present and for the immediate future the private capital market to such enterprises. As long as public utilities and power companies can-

not operate in at least a favorable climate and be assured of a reasonable return on their capital investment, private capital in no country, including the countries in which the plants are located, will make available its earnings and savings to such enterprise. So far as Mexico is concerned I have the confidence that if the Mexican Government follows through the more understanding policy with respect to private capital and with respect to the power industry, in the course of three or four years the private capital market in the United States will be as open for power companies in Mexico as it is to the power companies in the United States. For the present, however, this source of capital abroad is closed.

There remain in the whole world today only two sources from which the greater part of the capital for the power program in Mexico may de assured the Export-Import Bank of Washington, which is an official organ of the United States Government, and the International Bank for Reconstruction and Development, in Washington, which is an inter-governmental bank operating since 1945. The Export-Import Bank of Washington, with the functioning of which you are all familiar, has been one of the most constructive forces at work in aiding sound industral and other programs in the American republics in particular, and in certain other countries of the world. The capital of this bank and which it lends to governments and to private industry in other countries comes from appropriations made from time to time by the Congress, which monies must come from the United States Treasury, which as you know secures its funds from United States Government borrowing from its people and from taxes paid by the people of the United States. The Export-Import Bank has had a constructive period of actuation and is apparently entering into an even broader and more active field of operations.

The World Bank for Reconstruction and Development is an intergovernmental bank in which most countries have a participation including Mexico. The capital however of the bank is largely subscribed by the United States Government and the bank has to secure its money which it lends through the sale of securities to the public. The bank as such has no funds to lend except its limited capital and, I repeat, must secure its funds for lending purposes through the sale of securities to the public. This bank of relatively recent origin has a promising field of operation and a broad scope of usefulness and it is showing increased interest in sound projects in the American republics.

Up to now the World Bank, although it is an inter-governmental bank and is prepared to lend money to governments and to private firms in a number of countries, has been able to sell its securities for the most part only in the United States. There has been very little market in other countries for its securities and in the United States so far the interest in its securities has been principally by banks, insurance companies, investment houses, and trust funds rather than by the individual private investor.

While the Export-Import Bank and the World Bank are prepared to make loans to governments and to private companies at a reasonable rate of interest varying from 3-1/4 per cent to 5 per cent including all fees, these banks can only make loans which are based on careful study and sound projects and which will aid in the development of the economy of the country in which the proceeds are to be used and in strengthening its general productive capacity. They can only make loans when assured of the repayment of the capital amount loaned over the specified period of years in the loan contract and of assurances as weak of a reasonable interest thereon. They can only make loans for the development of projects on which the studies show there will be a reasonable return on the investment, for as these banks

must secure the money which they lend from the pockets of the taxpayer in the United States or from the private investor in the United States or other countries and as governments and banks have to get interest on the securities which they issue, these banks cannot make loans except when there is a reasonable return assured on the investment.

The Mexican Light & Power Company is seeking a loan from the World Bank to carry through a good part of the program which has been assigned to it and which is so important in the Mexican economy. There is every reason to believe that such a credit will be granted by the World Bank if the bank is satisfied that the program is essential for the Mexican economy and if the company will be able to repay the loan and to earn a reasonable return on the investment. It is not for me to speak about the program of the Power Commission, or of other private Mexican and foreign companies, but it is obvious that the principles which the banks apply to the loan for the Mexican Light & Power Company will be applied to any loans made to Mexico or to any other country or to any other enterprise.

I have already transgressed the limits of the time which I should take, but the problem which I have so inadequately presented owing to this hand-cap of time is so vital in the economy of Mexico, in which we are all so deeply interested, that I have wished to give you at least these major outlines of the problem which exists.

There is no question as to the needs of the power plants under the program of the government and of the Power Commission, and of the Mexican and private companies in the country. With the best efforts that all these can make it can only be hoped that the power needs of the country will be met as they develop. What is inadequately understood are the consequences to

the economy of Mexico if these power needs are not met. The restrictions on the use of domestic power would cause the inconveniences which the public realizes to a fair extent but in no measure does it appreciate to what degree such restrictions would affect the ordinary functions of our daily life and our comforts and conveniences. The effect of the lack of adequate power on the economy of the country would be disastrous. The wise and sound program of the Mexican Government and of Mexican industry and finance to develop the industrial capacity of the country would be completely arrested and new factories which are now under construction and others planned and which can do so much for the economic strength of the country as well as the standard of living and aid immeasurably in the stabilizing of the balance of trade, would be without power to move their wheels and the flow of goods so important to the country would be stopped in its tracks and the source of greater employment and general wellbeing would be destroyed.

In very recent years the wise policies pursued by the Mexican Government have reestablished its credit and increasingly the capital market abroad has begun to view with favor investment in sound industry in the country, either assuming the whole risk or associating itself with Mexican capital. This, however, does not yet apply, so far as private capital abroad is concerned, to the power industry in Mexico nor in certain other countries of the American republics. Within the country the private capital market remains limited and the possibilities of government aid restricted. The two major problems, therefore, to be overcome in this program for providing adequate power are the securing of equipment in these difficult times and the securing of the foreign and domestic capital necessary in such larke amounts for the necessary plants. The whole program depends upon the degree to which the companies can operate in an adequately favorable climate and with adequate assurances of reasonable treatment. It is sufficient to say that if today

the companies operating in the field of public utility, whether Mexican or foreign, had even in a relatively small measure the opportunities for reasonable return on investment enjoyed by other industries there would be no question about the availability of capital.

I am living among you again in a private capacity because I have a deep and enduring faith in your country and an interest in the development of its economic position and in the standards of living of its people. I am confident that the government and the thoughtful people of Mexico will in the immediate future, as they have in the years immediately behind us, proceed with the development of those sound policies which in a few years have given a tremendous uplift to the economy of the country and to its internal and external position. I am confident that wise and sound policies which are for the good of all the people of the country will prevail.