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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

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REPORT AND RECOMMENDATIONS

OF THE

PRESIDENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED LOAN

TO THE

CORPORACION DE FOMENTO DE LA PRODUCCION (FOMENTO)

AND

EMPRESA NACIONAL DE ELECTRICIDAD S.A. (ENDESA)

IN

CHILE

December 21, 1959

INTERNATIONAL BANK FOR  
RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATIONS OF THE PRESIDENT TO THE EXECUTIVE DIRECTORS  
ON A PROPOSED LOAN TO CORPORACION DE FOMENTO DE LA PRODUCCION AND  
EMPRESA NACIONAL DE ELECTRICIDAD S.A. IN THE REPUBLIC OF CHILE

1. I submit herewith the following report and recommendations on a proposed loan in an amount equivalent to \$32.5 million to Corporacion de Fomento de la Produccion (Fomento) and Empresa Nacional de Electricidad S.A. (Endesa) to finance the foreign exchange cost of expanding Endesa's power facilities.

PART I -- HISTORICAL

2. The first loan made by the Bank for economic development--as distinct from reconstruction--was a loan of \$13.5 million made on March 25, 1948, to Fomento and Endesa to finance an early stage of Endesa's program of power development, which included the installation of 81.4 MW of hydroelectric generating capacity and related facilities. The plants have all been in operation since 1955. Principal repayments to date total \$5,211,000 and the entire loan is scheduled to be repaid by July 1, 1968.

3. On November 1, 1956, the Bank made a second loan to Fomento and Endesa as co-borrowers equivalent to \$15 million for a project for the expansion of Endesa's hydroelectric generating capacity by 166 MW in three hydroelectric plants and transmission facilities. Of this capacity, 49 MW were put into operation in 1959 and the two remaining plants are expected to be completed in 1960 and 1961. The power development program, of which this project was a part, was designed to meet Chile's power needs through 1965. The Rapel hydroelectric plant was included in this program with construction scheduled to begin in late 1959.

4. Detailed information on the Rapel and Huasco Project was submitted to the Bank in May 1958 by Endesa, but Chile's unsatisfactory economic situation and prospects precluded active consideration at that time.

5. In November 1958 a new government took office in Chile. A Bank mission visited Chile in August-September 1959 to assess the economic position and prospects in the light of the accomplishments of the new administration and to appraise the Rapel and Huasco Project.

6. Negotiations of the proposed loan began in Washington on December 9, 1959 with Messrs. Joaquin Figueroa and Santiago Astrain representing the Government and the Borrowers.

7. The proposed loan would be the Bank's eighth in Chile and would bring the total of Bank loans in Chile to \$106.2 million equivalent. Loans previously made are:

<u>Year</u>	<u>No.</u>	<u>Borrower</u>	<u>Purpose</u>	<u>Amount (equivalent in millions of U.S.\$)</u>
1948	5 CH	Fomento and Endesa	Power development	13.5
1948	6 CH	Fomento	Agricultural development	2.5
1951	49 CH	Fomento	Exploration for under-ground water	0.9
1953	83 CH	Fomento and Papeles y Cartones	Paper and pulp mill	20.0
1956	153 CH	Fomento and Endesa	Power development	15.0
1957	171 CH	Fomento and Schwager	Coal mine expansion	12.2
1957	172 CH	Fomento and Lota	Coal mine expansion	9.6
				_____
Total, net of cancellations:				73.7
of which has been repaid :				9.3
				_____
Total now outstanding :				64.4
				_____
Amount sold :				3.8
of which has been repaid :				2.8
				_____
Net amount now held by Bank:				63.4 <sup>1/</sup>
				_____

1/ includes \$23.4 million not yet disbursed.

PART II - DESCRIPTION OF THE PROPOSED LOAN

8. The proposed loan would have the following characteristics:

Co-borrowers: Corporacion de Fomento de la Produccion (Fomento) and Empresa Nacional de Electricidad S.A. (Endesa).

Guarantor: Republic of Chile.

Amount: The equivalent in various currencies of \$32.5 million.

Purpose: The project consists of

(a) the construction of a 280 MW hydroelectric power plant on the Rapel River and about 350 kilometers of transmission lines to serve the Santiago and Valparaiso areas. Two of the four generating units would come into operation late in 1964 and the other two early in 1965; and

(b) the construction of a 15 MW thermal plant at the northern iron ore port of Huasco and of related transmission lines. The plant is scheduled to go into operation by the end of 1962.

Amortization: 45 semi-annual installments, April 15, 1963 to April 15, 1985.

Interest Rate: 6 per cent per annum, including commission.

Commitment Charge: 3/4 of 1 per cent per annum.

Payment Dates: April 15 and October 15.

PART III - LEGAL INSTRUMENTS AND AUTHORITY

9. There are attached hereto drafts of the Loan Agreement (No. 1) and the Guarantee Agreement (No. 2). The Loan Agreement is substantially similar to the earlier agreements between the Bank and Fomento and Endesa

and other agreements entered into by the Bank for similar projects. Section 5.13 contains a rate covenant similar to those appearing in recent Loan Agreements for power projects.

10. The Guarantee Agreement follows the general pattern of the Bank's Guarantee Agreements in all important respects, and is also similar to previous Guarantee Agreements between the Republic of Chile and the Bank. Section 2.02 provides that, whenever there is reasonable cause to believe that the funds available to Fomento will be inadequate to enable it to carry out its obligations under the Loan Agreement, the Guarantor will provide Fomento or cause Fomento to be provided with the funds needed to meet such obligations.

11. The guarantee of the Republic of Chile would be given pursuant to Law 9298 of January 1949, as amended.

PART IV - APPRAISAL OF THE PROPOSED LOAN

12. A detailed appraisal of the Project (T.O. 229a) is attached (No. 3).

13. The Rapel plant would serve the central area of Chile which contains the greatest concentration of industrial, commercial and agricultural activity in Chile. Industrial power consumption in 1958 accounted for 45% of total requirements. The main industries include a steel mill, pulp and paper mills, coal mines, carbide and metallurgical industries, cement plants and copper refineries. The industrial consumption of electric energy is expected to increase from 1.1 billion kwh in 1958 to 2.9 billion kwh in 1968.

14. For many years a shortage of generating capacity in this area has made it necessary to maintain restrictions both on the connection of new customers and on power consumption. Because of this shortage, power consumption has increased at an average annual rate of only 7% in recent years. As additional generating capacity becomes available, power consumption is expected to increase at an average annual rate of about 14% over the next 5 years but to decline to a 9% annual rate of increase at the end of that period.

15. The Endesa program within the central area is coordinated with the expansion planned by two private power companies which are principally responsible for power distribution in the area. The Rapel plant would generate about 70% of its power during the winter months (May-October) when the demand is highest. The new generating capacity should be sufficient to meet the expected increase in peak load but the reserve capacity in the

system would be very small and restrictions would have to be imposed if a breakdown of any of the larger generating units in the system should occur during the winter peak load period.

16. About 10,000 hectares of suitable land will be irrigated with water drawn from the Rapel reservoir. Diversion of the water for irrigation would not interfere with power generation.

17. The Huasco thermal plant would serve the northern iron ore port of Huasco; fuel for the plant would be coal from the Lota and Schwager mines. The area to be served by the plant has a relatively small population. The main industry is mining, principally iron ore, copper and manganese. The existing power generating capacity is fully loaded. The Huasco plant would provide the firm supply of power required for the expanding mining operations. The high grade iron ore in this area of Chile is a valuable export product and the development of the mines has therefore a high economic priority. Endesa estimates conservatively that the consumption of energy will increase at an average annual rate of 10% and the system would on this basis be fully loaded by 1968. Transmission lines would be built to supply power to the mines and to four neighboring towns.

#### Endesa's Financial Position

18. Endesa was formed as a joint stock company in 1944 to plan electric power development in Chile and to provide facilities for meeting power requirements which cannot be provided by other companies; most of its stock is owned by Fomento. Fomento, a government corporation established in 1939 to carry out the Government's development policies, would be a party to the loan primarily because of the requirements of Chilean legislation.

19. In each of the past ten years Endesa has shown a profit after all financial charges. recently promulgated Electricity Law permits power companies to charge rates which would, in effect, allow an annual return of about 10% on investment based on the replacement value of their assets which would be adjusted annually. Endesa intends to charge rates which would by the end of 1962 yield this return.

#### Arrangements for Financing

20. The total cost of the project is estimated at the equivalent of \$72.3 million. The foreign currency requirements of \$32.5 million would be covered by the proposed Bank loan and the local currency costs of \$39.8 million equivalent would be provided by Endesa from its own resources and from funds provided by Fomento on an equity basis.

#### Procurement

21. The procedures followed by Endesa in procuring equipment have been in line with sound utility practice. All major pieces of equipment for the project are to be procured through international competition.

Economic Situation

22. A report on the Economic Position and Prospects of Chile (R 59-101) was distributed on December 16, 1959. The report points out that the new Administration which took office in November 1958 has shown determination to come to grips with the financial and economic problems which beset Chile in the last decade. It has ceased to rely on central bank credit and has taken measures to contain the deficits of the public sector, which were the prime cause of the inflation in previous years, and to dismantle the direct controls which in the past stifled the economy. Chile's net external position improved by about \$80 million during 1959 and foreign exchange reserves rose from US\$ 10 million at the end of 1958 to US\$ 77 million at the end of October 1959. However, it has not succeeded in restricting the money supply which has expanded mainly as a result of sales to the Central Bank of foreign exchange obtained for the most part from dollar loans from Chilean nationals.

23. Chile's payments on the external debt during the next several years are high in relation to foreign exchange earnings, but with exports expected to increase appreciably in the next few years, and with debt payments scheduled to decline, there is some margin for incurring additional long-term external debt, provided there is an adequate period of grace and other external borrowing is restricted. Attached (No. 4) is a letter from the Minister of Finance indicating that the Chilean Government recognizes that the present service requirements on Government and Government-guaranteed debt constitute an unduly heavy burden upon the foreign exchange earnings of Chile and expressing the firm intention of the Government to reduce by 1964 the level of annual service on short-and medium-term debt to about \$20 million a year.

24. The conclusion that Chile can be considered creditworthy for some additional long-term borrowing does not rest on the prospective decline of the rate of debt service obligations to free foreign exchange earnings but is based primarily on the determination shown by the Government to deal effectively with the country's principal financial and economic problems. In view of the complex political situation, the possibility of setbacks must not be ruled out. But, on balance, the prospect is that an increasing level of exports and responsible management of the country's economic and financial affairs will assure the resumption of economic growth at a satisfactory rate and further improve the country's ability to service external debt.

Prospects of Fulfillment of Obligations

25. The project is technically sound and is necessary to provide the capacity required to meet conservative estimates of the demand for power. It constitutes at the present time the most economic solution for the increase in power generation.

26. Endesa has competent and experienced management and its organization seems well adapted to the operations of the company. Its engineering staff with the assistance of the consultants already retained is well qualified to execute the project.

27. Endesa should be able to provide without difficulty the funds needed to cover the local currency costs of the project and to purchase the foreign exchange needed to service the proposed loan.

28. Chile should be able to provide the foreign exchange required to service the loan in addition to its other external obligations.

PART V - COMPLIANCE WITH ARTICLES OF AGREEMENT

29. The report of the Committee provided for in Article III, Section 4(iii), of the Articles of Agreement is attached (No. 5).

30. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATIONS

31. I recommend that the Bank make a loan to Corporacion de Fomento de la Produccion and Empresa Nacional de Electricidad S.A. with the guarantee of the Republic of Chile in an amount in various currencies equivalent to \$32.5 million with interest (including commission) at 6% per annum and on such other terms as are specified in the attached draft Loan and Guarantee Agreements and that the Executive Directors adopt a Resolution to that effect in the form attached (No. 6).

Eugene R. Black  
President

Washington, D.C.  
December 21, 1959