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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

APPRAISAL

OF

ITALIAN

INDUSTRIAL, IRRIGATION AND POWER

PROJECTS

May 24, 1955

Department of Technical Operations

CURRENCY EQUIVALENTS

U. S. $ 1	=	625 lire
1 lira	=	0.16 U. S. cents
1 million lire	=	U. S. $ 1,600
1 billion lire	=	U. S. $ 1.6 million

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PROJECTS

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APPRAISAL OF ITALIAN INDUSTRIAL, IRRIGATION AND POWER PROJECTS

I. INTRODUCTION

1. In May and June 1954 a Bank mission visited Italy, and the Italian Government asked the Bank to make a loan of $70 million equivalent in further support of the 12-year program for the economic development of Southern Italy under the auspices of the Cassa per il Mezzogiorno for which the Bank had already made two loans in 1951 and 1953, for $10 million each.

2. After the Bank mission had reported favorably on the country's creditworthiness, the Bank informed the representatives of the Italian Government in September that it was agreeable in principle to consider the loan request favorably, and asked them to submit a list of projects which might be used as a basis for the proposed loan.

3. Two Bank staff members went to Italy at the end of November to collect preliminary data on the projects which the Italian Government wished to submit and to examine the general effects of the Cassa program on the Italian economy. Preliminary data on the projects were brought back to Washington towards the end of December.

4. These data related to five irrigation projects with a total estimated cost of about $300 million equivalent; 23 power projects with an estimated cost of $153 million equivalent; and 28 industrial projects with an estimated cost of $112 million equivalent.

5. The preliminary data were examined in Washington in January, and questionnaires were prepared in order to obtain the information needed to select from among the projects submitted those most suitable for Bank financing. These questionnaires were taken to Rome early in February by staff members who collected the answers and relayed them back to Washington. On the basis of this information, a tentative selection of projects was made. These projects were then investigated and analyzed in more detail in the field and a final selection was made consisting of seven industrial projects, one irrigation project, and three power projects.

6. The seven industrial projects are:

Cementerie Siciliane	(cement)
SICULAZOTO	(fertilizers)
SINCAT	(fertilizers)
SFAS	(citrus fruit processing)
SIL	(paper)
FARMEDI	(pharmaceutical)
MANITEX	(woolen yarn)

7. The irrigation project is the Catania scheme in Sicily.

8. The three power projects are those of:

Sta. Meridionale di Elettricita (SME)
Sta. Generale Pugliese di Elettricita (Pugliese)
Unioni Esercizi Elettrici (UNES)

9. These eleven projects are described and appraised in the following sections of this report.

INDUSTRIAL PROJECTS

GENERAL

10. The Cassa submitted loan applications totalling about $52 million equivalent for 28 privately owned industrial plants with an estimated total cost of about $112 million equivalent, in order that the Bank might choose from among them those best suited for Bank financing within the amount to be earmarked for financing industrial projects. It was thus necessary to study all the projects. The most important factors taken into account in making the selection were the expected benefit to the Italian economy, the financial soundness of the project, and its state of preparation.

11. Some projects under construction and some proposed plant sites were visited. Discussions were held with the promoting groups in order to obtain information and to form a judgment of their capabilities.

12. Seven projects with a total cost of $43 million equivalent were finally selected which could serve as a basis for loans totalling $18.41 million equivalent. The amount proposed for the industrial sector is $20 million equivalent. The unallocated balance of $1.59 million equivalent could serve as a contingency fund or be available for the inclusion of one or more further projects at a later date.

13. The seven selected projects tie in well with the general economic development of Southern Italy and should help to realize the Cassa's goals of increasing agricultural and industrial production in this region. They cover several fields: one plant will produce cement and two fertilizers; two will process agricultural and forest products; and two are light industrial plants.

14. The plants will have competent and experienced management and, with their modern equipment, will be relatively low cost producers. The total annual sales are estimated at L. 16 billion (U.S. $25.4 million) when full production is reached by all. Of this amount, it is estimated that L. 7.0 billion (U.S. $11.0 million) will represent foreign exchange earnings and/or savings. When in normal operation, the plants will employ about 2,000 persons.

15. The projects selected are the following:

	Estimated Total Cost L. million	Proposed Loan L. million	Proposed Loan $million equivalent
Cementerie Siciliane (cement)	3,100	1,060	1.70
Siculazoto (complex fertilizers)	3,200	1,500	2.40
Sincat (complex fertilizers)	9,000	3,600	5.76
S.F.A.S. (citrus juices)	2,271	1,171	1.88
S.I.L. (paper)	4,750	2,600	4.16
Farmedi (pharmaceutical)	2,010	1,000	1.60
Manitex (wool yarn)	1,380	570	.91
Sub totals		11,501	18.41
Unallocated		999	1.59
Totals	25,711	12,500	20.00

16. Except in cases where the individual project appraisals contain specific remarks to the contrary, the following comments apply to all the projects:

(a) The cost estimates are reasonable and include adequate allowances for working capital, interest during construction and contingencies.

(b) The construction schedules are realistic.

(c) The projects are carefully planned and well engineered. Their construction will be supervised either by the parent company or by consulting firms. This should ensure good construction and proper installation of equipment.

(d) Estimates of production costs, the volume of sales, and selling prices are reasonable.

(e) Depreciation allowances have been conservatively calculated.

(f) When the term "100% production" is used, it means production at the normal rated capacity of the plant. (In any of the projects, production could be forced above the normal capacity).

17. The establishment and maintenance of a sound financial position has been discussed with the management of each of the companies. Agreements have been reached on the amount of share capital, the treatment of shareholders' advances, the ratio of long-term debt to equity, the limitation of

dividend payments, the maintenance of adequate working capital, etc. These agreements, the terms of which vary from company to company, have been embodied in letters, copies of which are included in the annexes.

18. In most cases, an equity-debt ratio of 1:1 has been required. Some of the projects have a more favorable ratio. In one case, the ratio of equity to debt is 5:8, but the merits of the project and the high rate of expected profit justifies this ratio. In general, the required ratios are conservative, and more favorable than is usual in Italian practice.

19. In those projects where the share capital is supplemented by shareholders' advances, these advances have been subordinated to the proposed loans from Bank funds, and are in effect to be treated as share capital; they cannot be withdrawn during the life of the loan.

20. For purposes of calculation an interest rate of 6% has been assumed on the proposed loans from Bank funds. The various terms suggested for these loans are based on the probable economic life of the equipment and on the expected generation of funds. The grace periods suggested correspond approximately with the construction periods. The terms on which these loans will be made by the Cassa may differ in some cases from those suggested, but will in all cases be subject to Bank approval.

21. No allowance has been made in the cash flow estimates for the payment of dividends. Funds will be available for dividends in each case, but it will be a matter of management policy how far these funds are paid out in dividends and how far they are used to accumulate reserves, to increase working capital, to retire debt, to make additional capital investments, etc. The funds available have been shown as accumulated surplus, with a corresponding entry shown as "additional assets".

FEATURES OF THE PROJECTS

22. The location of the projects is shown on the map attached (Annex 1).

23. The Cementerie Siciliane will produce about 120,000 tons of cement annually, which can be wholly consumed in Sicily. The present annual production in Sicily is 360,000 tons as compared with a consumption of 740,000 tons. Consumption is expected to grow by about 100,000 tons annually for the next few years so that the market should be more than adequate for several new plants.

24. Over 40% of the total amount allocated to industry is to be used for Siculazoto and Sincat to make complex fertilizers in Sicily. Consumption in Southern Italy (including the Islands) has been increasing by about 25% annually in recent years but is still well below the level reached in the North. Use of fertilizers will be stimulated over the next several years by the Cassa program for agriculture.

25. The consumption of complex fertilizers in Italy is still far below the corresponding rate for most other countries in Western Europe and is expected to grow rapidly in the future. Only half of the fertilizer consumed in the South is now produced there. The availability of raw materials (natural gas and sulphur) and low transport costs for imported raw materials and for finished products makes Sicily a logical choice for the location of fertilizer plants.

26. Fertilizer will be made available to the farmers at prices under those presently prevailing, since the plants will be located close to the center of the consuming area and freight costs will be greatly reduced.

27. The S.F.A.S. project will process Sicilian citrus fruit, largely for the export market. This will be the first plant in Europe, equipped with modern machinery, to produce high quality concentrated and frozen citrus juices and essential oils. Lemon juice can be exported to the United States where the increase in consumption is rapidly outstripping production. A very large proportion of the production is intended for export with foreign exchange earnings estimated at between $2 and $3 million annually.

28. The S.I.L. paper mill is to be located in the Fucino Basin and will use timber and straw grown in the valley. The new use for these agricultural by-products will considerably augment the income of the local farmers. Italy is now a net importer of paper and the new mill will help reduce foreign exchange expenditures.

29. The Farmedi Company will manufacture pharmaceuticals and agricultural chemicals for Southern Italy. The use of agricultural chemicals (pesticides, veterinary supplies, feed supplements) is relatively new in Italy. There is a demonstrated need for these materials in Southern Italy due to the high incidence of animal and plant diseases. The control of pests and diseases will thus contribute directly to the Cassa's agricultural program by increasing production and farmer income per unit of land under cultivation.

30. The Manitex project will produce wool yarn for sale to the knitting and weaving industry. Although the company will not export directly, the indirect exports may be expected to be high since Italy is an important and competitive exporter of woolen fabrics.

CONCLUSION

31. The projects selected are suitable for financing out of the proceeds of the proposed Bank loan, in the amounts and on the terms set out in the individual project appraisals which immediately follow.

CEMENTERIE SICILIANE

Borrower

32. The proposed borrower would be Cementerie Siciliane, a new company which would erect a cement plant at Isola delle Femmine, near Palermo, Sicily. This firm is a wholly owned subsidiary of the Italcementi Company which operates 24 cement plants in Italy. The total cost of the plant would be about L.3.1 billion ($4.95 million) out of which it is proposed that about L.1.1 billion ($1.7 million) should be financed out of IBRD funds.

Description

33. The plant, using the dry process, would have a capacity of 130,000 tons of cement per year. It would be located on an existing railroad and on a national all-weather highway. Limestone deposits adjoin the factory site, and clay deposits are only about 10 kilometers away by road. The plant would burn fuel oil from Italian refineries. It would purchase its power from the Elettrica della Sicilia whose transmission line passes close by the works. Houses would be built for key personnel. No special housing has to be provided for the rest of the personnel, since there is no shortage of labor locally.

Present Status

34. The company has thus far spent about 18 million lire on land, etc. Construction could start as soon as financing has been arranged, and would take an estimated two years.

Management

35. Key operating personnel will come from Italcementi, the parent company, which has substantial experience in the successful operation of cement plants in Italy.

Financing

36. The share capital, corresponding to about one-half of the initial investment requirements, has already been paid in cash. The proposed loan from IBRD funds would cover another third, while the remainder would come from shareholders' advances and short-term borrowings. The

estimated pro forma balance sheets as of the date of completion of the plant and after three years of operation are shown below (million lire):

	June 30, 1957	June 30, 1960		June 30, 1957	June 30, 1960
Fixed Assets	2,800	2,800	Share Capital	1,500	1,500
Minus Depreciation	-	534	Surplus	-	376
Net Fixed Assets	2,800	2,266	IBRD Debt	1,060	808
Current Assets	300	560	Shareholders Advances	440	250
"Additional Assets"	-	388	Current Liabilities	100	280
	3,100	3,214		3,100	3,214

37. The letter embodying the financial agreement with the company is attached (Annex 2).

Markets

38. Due mainly to the rapid upsurge in consumption, Italy has become a net importer of cement in recent years. A regional shortage is strongly felt on Sicily where only 360,000 tons were produced in 1954 as contrasted with a consumption of 740,000 tons. Although other cement mills are under construction or planned on Sicily besides the Cementerie Siciliane, the estimated output by 1957 would be only 735,000 tons as compared with a probable minimum demand of 890,000 tons (our conservative estimate) and a possible demand of 1.1 million tons, according to Italcementi's own optimistic forecast.

Earnings and Debt Service Coverage

39. Cementerie Siciliane's earnings forecast shows a net return on share capital rising from about 5% after taxes for the first year of operation when the plant would operate at 85% of rated capacity to 11.8% for the third year, when full capacity output would be attained. (See Financial Forecasts, Annex 3).

40. The coverage for debt service on the proposed loan would be about 1.6 - 1.9 times, corresponding to operations at respectively 90% and 100% of rated capacity. As shown in Annex 3, the company should be able to support a simultaneous 20% reduction in sales and 15% reduction in selling prices (with no reduction in raw materials, prices or wages), and though operating at a loss would still be able to service its debt.

Economic Justification

41. Sicily offers great advantages for cement plants, such as sea-side locations and good availabilities of raw materials, fuel, and labor. The market prospects are also good. Under the present Italian price structure (uniform prices f.o.b. cement plant), the new plant would mean substantial savings to Sicilian consumers through lower transport charges. The estimated total employment would be about 150 workers.

Conclusions and Recommendations

42. The Cementerie Siciliane cement project is sound and could be made the basis for a loan of about L.1.1 billion ($1.7 million) including interest during the grace period for a period of 12 years including two years' grace period.

SICULAZOTO

Borrower

43. The proposed borrower would be Siculazoto, S.p.A., a newly established company, which would erect a fertilizer plant at Catania, Sicily. The total cost of the project is estimated at L. 3.2 billion ($5.1 million), of which it is proposed that L. 1.5 billion ($2.4 million) should be financed through IBRD funds, and the rest through an increase in share capital. Siculazoto's present authorized share capital is L.1.0 billion, of which one-half is held by the Societa Generale Mobilaire in Turin and 40% by Dr. Ernanno Gurgo Salice, who is also a major shareholder in the Sta. Generale Mobiliare. The company has agreed to increase this to L. 1.5 billion.

Description

44. Siculazoto's plant would have a daily capacity of 150 tons of compound fertilizer and 10 tons of FLOTAL (an additive for clay soils). They would make their own ammonia, based upon local natural gas, and sulphuric acid, based upon Sicilian sulphur fines. Potassium sulphate would be imported from France, or ultimately from Sicilian deposits located about 150 km from the plant, and phosphates would be obtained from North Africa. The plant will be located in the Catania industrial zone which has adequate power, water and transport facilities.

Present Status

45. The Rumianca Company, Turin, in which the controlling interest is held by the Sta. Generale Mobiliare, has submitted an offer to construct the plant on a turnkey basis at a firm price, to be completed within 16 months from the date the order is placed. Although the cost estimate contains a contingency allowance, one additional item (gas cleaning equipment) may be required which is not included in the estimate. The agreement with Siculazoto stipulates that the company supply, as equity, 50% of any investment requirement above the present estimate. The magnitude of the possible increase is such that it will not appreciably affect the earnings outlook.

Management

46. Management and key operating personnel will come from Sta. Generale Mobiliare and Rumianca. The latter company already operates two fertilizer plants in Northern Italy similar to the one now planned for Siculazoto, and also holds certain patents for complex fertilizers which are being made available to the new plant.

Financing

47. The estimated pro forma balance sheets as of the date of completion of the plant and after three years of operation are shown below (million Lire):

	June 30 1957	June 30 1960		June 30 1957	June 30 1960
Fixed Assets	2,600	2,600	Share Capital	1,500	1,500
Less Depreciation	-	780	IBRD funds	1,500	1,145
Net Fixed Assets	2,600	1,820	Current liabilities	200	400
Current Assets	600	800	Surplus	-	649
"Additional Assets"	-	1,074			
Total Assets	3,200	3,694	Total liabilities	3,200	3,694

48. The letter embodying the financial agreement with the company is attached (Annex 4).

Markets

49. The consumption of fertilizer in Sicily and in Southern Italy has been growing at very rapid rates in recent years, but is still far below the national average. Assuming a very moderate increase of about 25% in the total consumption of plant nutrients in this area, during the next 3 - 4 years, the combined production of Siculazoto and Sincat (the other fertilizer plant proposed for Bank financing) would cover only about one-half of the sum of present imports, mainly from Northern Italy, plus the increase in consumption. Although only a small portion of the present consumption is in the form of compound fertilizers, the use of such fertilizers is growing rapidly. Since Siculazoto's product would be marketed through the Consorzi Agrari Provinciali, farmer's cooperative organizations represented in every important agricultural center, they should have no difficulty in disposing of their total output.

Earnings and Debt Service Coverage

50. The earnings forecast shows a net return after taxes equal to about 14% on share capital. (See Financial Forecasts, Annex 5).

51. The coverage for debt service in a normal year would be about 2.8. The company should be able to face a 20% reduction in output and a 15% decline in selling prices, and through operating at a loss would still be able to meet its debt service.

Economic Justification

52. The new plant should provide Italian farmers in the South and in Sicily with fertilizer at prices about 10% less than present prices. It would also make substantial use of local raw materials (natural gas, sulphur and eventually perhaps also potash).

Conclusions and Recommendations

53. The Siculazoto fertilizer project is sound, and could be made the basis for a loan of about L. 1.5 billion ($2.4 million), including interest during the grace period, with a term of 12 years including a 2 years grace period.

S I N C A T

Borrower

54. The proposed borrower, Societa Industriale Catanese S. p. A., Palermo (a company constituted in May 1954) would erect a fertilizer plant at Melilli-Augusta, north of Syracuse, Sicily. The total estimated cost of the project is L. 9.0 billion ($ 14.4 million) of which it is proposed that L. 3.6 billion ($ 5.76 million) would be financed from IBRD funds. The share capital would be held exclusively by companies belonging to the Edison Group, which is the largest power concern in Italy and which has extensive industrial holdings.

Description

55. The plant would have an initial production of 100,000 tons per year of double and triple compound fertilizers, but general and auxiliary facilities as well as sulphuric acid and phosphoric acid plants would have capacity which would permit the doubling of the initial production rate of fertilizers at some future date with a very low additional investment (about L. 1.5 billion). As raw materials it would use liquid ammonia shipped from an Edison subsidiary near Venice, local Sicilian sulphur fines, and potash salts and phosphates from the Mediterranean area. The plant will be located on the shore and will have good harbor facilities as well as rail and road transport facilities. Power will be generated at the plant and water will be obtained from wells on the property.

Present Status

56. The company has already purchased the site on which the future plant will be located. Construction, which could start as soon as the necessary financing has been arranged, would take an estimated three years.

Management

57. The Edison Group which has very important interests in the chemical field would supply the necessary key management, personnel, and technical know-how.

Financing

58. The Edison Group would supply L. 2 billion as share capital and L. 2.6 billion in loans under covenants which would make them equivalent to equity, while L. 3.6 billion would come from the proposed IBRD

Loan. The estimated pro forma balance sheets as of the date of completion of the plant and after three years of operation are shown below (million lire):

	June 30, 1958	June 30, 1961		June 30, 1958	June 30, 1961
Fixed Assets	7,500	7,500	Share Capital	2,000	2,000
Minus Depreciation	-	2,250	Shareholders Advances	2,600	2,600
Net Fixed Assets	7,500	5,250	IBRD funds	3,600	2,748
Current Assets	700	1,656	Current liabilities	-	750
"Additional Assets"	-	2,270	Surplus	-	1,078
	8,200	9,176		8,200	9,176

59. The letter embodying the financial agreement with the company is attached (Annex 6).

Markets

60. The consumption of fertilizer in Sicily and in Southern Italy has been growing at very rapid rates in recent years, but is still far below the national average. Assuming a very moderate increase of about 25% in the total consumption of plant nutrients in this area during the next 3 - 4 years, the combined production of Sincat and Siculazoto (the other fertilizer plant proposed for Bank financing) would cover only about one-half of the sum of present imports, mainly from northern Italy, plus the increase in consumption. Although only a small portion of the present consumption is in the form of compound fertilizers, the use of such fertilizers is growing rapidly

61. Sincat's output will be marketed partly through the Consorzi Agrari Provinciali, farmers' cooperative organizations represented in every important agricultural center, and partly through their own sales organization. An opportunity also exists to export about one-third of the output, so they should have no trouble in disposing of their total output.

Earnings and Debt Service Coverage

62. According to our calculations which differ slightly from the company's original estimates (higher depreciation allowances and a lower purchase price for ammonia), Sincat's net income after taxes will be about 8%. (See Financial Forecasts, Annex 7). This is calculated on the total share capital and shareholders' advances and assumes opera-

tions at 80% of capacity, representing normal operations for the present. This is partly due to conservative assumptions on the growth of the market and partly because some of the components of the plant are oversize to allow a future doubling of production with a low additional investment of L. 1.5 billion ($ 2.4 million). One of the factors which will affect the profitability of the new venture is the price at which ammonia and nitric acid will be invoiced by other members of the Edison Group. The Bank has received assurance that those prices will be equitable.

63. The debt service coverage would be 2.7. In a temporary depression, the company should be able to operate at 70% of capacity with a 15% reduction in their assumed normal selling prices and though operating at a loss could still meet full service on the IBRD debt.

Economic Justification

64. Sicily offers great natural advantages for fertilizer production, such as seaside locations and local raw materials, such as natural gas and sulphur. The delivered price to consumers should be at least 10% lower than that of present purchases from northern Italian plants.

Conclusions and Recommendations

65. The Sincat project is sound, and could be the basis for a loan the equivalent of L. 3.6 billion ($ 5.76 million) including interest during construction, for a term of 13 years, including 3 years grace period.

S.F.A.S.

Borrower

66. The proposed borrower would be the Succhi Frutta Agrumi Siciliane (S.F.A.S.), incorporated in 1954, which would erect a citrus fruit juice concentrating and freezing plant at Catania, Sicily. The major stockholders are local businessmen who are also growers of citrus fruits. The American equipment supplier, Blaw-Knox Company, has agreed to participate in the company to the extent of 15-20% of the cost of the plant. The total cost of the project is estimated at about L. 2.27 billion ($3.63 million) of which it is proposed that L. 1.171 million ($1.88 million) would be financed from IBRD funds.

Description

67. This will be a new industry, located at Catania, Sicily, to process annually 22,500 tons of citrus fruits to obtain about 800 tons of concentrated orange juice and about 632 tons of concentrated lemon juice and related products; 3600 tons of tomatoes for juice and paste; and 3600 tons of grapes for juice. The citrus juice can be prepared in either frozen or unfrozen concentrated form. The plant is to be equipped with the latest machinery, which will be installed and initially operated under the supervision of the American suppliers. The plant is to be located in the Catania industrial zone which has adequate power, water and transport facilities. Catania is a major center of citrus cultivation so that collection of fruit will present no problem. Cans will be supplied by Italian manufacturers.

Present Status

68. The site has been purchased and preliminary design work completed. Construction could start soon after financing is assured and could be completed in about 10 months.

Management

69. This is a new industry for Italy and while the management does not have experience in the marketing of the proposed products, it does have experience in marketing fresh fruit. For technical operation, the company will rely on personnel from the United States until local personnel can be trained.

Financing

70. The proposed financing and company position upon completion of the project is shown below, with probable position after four years of operations (million lire):

Assets	June 30 1956	June 30 1960
Fixed Assets	1,371	1,371
Less Depreciation	-	540
Net Fixed Assets	1,371	831
Current Assets	900	900
"Additional Assets"	-	1,004
Total	2,271	2,735
Liabilities		
Capital	700	700
Surplus	-	971
IBRD loan	1,171	664
Current liabilities	400	400
Total	2,271	2,735

71. In this project the current assets are high in relation to the fixed assets. This is due to the seasonal processing and the large stocks of finished goods which will be sold over a period of time.

72. The draft letter embodying the financial agreement with the company is attached (Annex 8).

73. The cost estimates contain a 15% contingency item and there is reason to believe that the final cost of the project may be less than the total estimate. Therefore the draft letter of agreement provides that any reduction in cost up to L. 121 million will reduce the loan by that amount. Further reductions beyond this point will reduce the loan by 60% of the savings.

Markets

74. The company plans to export a very large proportion of its output, selling lemon juice in the U.S. and orange juice in the United Kingdom and northern Europe. Due to rapidly rising demand and limited domestic supply, prospects are favorable for lemon juice in the U.S.A. Market prospects also appear good in northern Europe and the United Kingdom for orange juice because of increasing consumption in these areas.

75. The success of the project depends upon the ability of the company to maintain quality standards and to market its products in the quantities at near the prices assumed in the estimates. The management is aware of the importance of the marketing aspect. They have had discussions with agents in several countries and have letters from these agents offering to handle the products if quality specifications are met.

Since no firm arrangements have been made for the disposal of the output, there is a certain element of calculated risk in this project which we recommend the Bank accept.

Earning prospects and debt service coverage

76. Based on reasonable estimates the plant should reach normal production in the second year after construction is completed, and sales should total L. 2.28 billion per year. The plant should then earn an annual net income of about 45% on share capital, and earnings before interest or depreciation should amount to about 2.7 times debt service. It is estimated that the company would be able to withstand an unexpected decrease of 10% market prices or more than a 10% increase in operating costs and still maintain debt service and earn a 10% dividend on equity. (See Financial Forecasts, Annex 9).

Economic Justification

77. If export sales are made at the expected level, the plant will earn between $2 and $3 million in foreign exchange annually, and will provide a profitable outlet for citrus fruit helping to balance increased Italian citrus plantings and increased competition in the European fresh fruit markets. The project will also provide a use for off-grade fruit not acceptable on the fresh fruit market and will convert heretofore waste or low value fruit into a high value product. The project fits in well with the Cassa program of promoting increased agricultural production. The project will also provide employment for about 110 people.

Conclusions and Recommendations

78. The project should be able to show excellent earnings provided that it markets the products in the quantity and at near the prices used in the estimates. These estimates are based on reasonable assumptions. Subject to the marketing aspects, the project is sound and could be the basis for a loan in the amount of L. 1.171 million ($1.88 million) for a period of 9 years including 1 year of grace.

S. I. L.

Borrower

79. The proposed borrower would be the Societa Idroelettrica Liri (SIL), a company presently operating a hydro-electric station in the Liri Valley supplying seasonal power. This station would be completely integrated with a new pulp and paper mill near Avezzano in the neighboring Fucino Basin which would make full use of this seasonal power. The total cost of the project, including the written down value of the power plant, is estimated at L.4.75 billion ($7.6 million) of which it is proposed that L.2.6 billion ($4.16 million) should be financed from IBRD funds.

80. The SIL is controlled by the Torlonia Group, which also owns other enterprises, including flour mills, sugar factories, agricultural and urban land.

Description

81. The mill would have an annual capacity of 25,000 tons of paper (6,000 newsprint, 8,000 magazine, 7,000 medium and 4,000 fine papers), and the project will include a groundwood mill producing 12,000 tons of mechanical wood pulp and a strawpulp mill producing 6,000 tons of bleached sulphite pulp annually. Another 6,000 tons of chemical pulp would be imported. The plant would include equipment for the production of caustic soda and chlorine required in the mill.

82. As previously stated most of the power requirements would be covered by the existing hydro-electric station. During the period of seasonally low water supplies, some thermal power would be available from a sugar factory in the same region, also belonging to the Torlonia Group. The balance of power required would be supplied by a small thermal plant, which is to be constructed as part of the project, and which will also provide process steam.

Raw Materials Supply

83. The pulp wood and straw required by the plant would come from the Fucino Basin About 600,000 poplar trees planted as wind breaks in the basin will supply a perpetual annual yield of 33,000 tons of pulp wood. The Fucino Valley is also a source of large quantities of wheat straw which are not utilized industrially and would be more than adequate for the needs of the plant.

Present Status

84. Construction could start shortly after financing has been arranged, and would require about three years.

Management

85. Management personnel would be provided from the Torlonia Group. Technical personnel and know-how, during the early operation of the plant, would be provided by the consultants, Sindicato Cellulose Pomilio, with worldwide experience in the design and operation of paper mills.

Financing

86. The Torlonia Group would supply L.1.05 billion as share capital. This includes the power plant at a value of L.437 million as of the beginning of the first operating year. In addition, they would contribute L.1.1 billion in loans under covenants which would make them equivalent to equity. The amount of the proposed loan from IBRD funds would be L.2.6 billion. The estimated pro forma balance sheets as of the date of completion of the plant and after three years of operation are shown below (million lire):

	June 30, 1958	June 30, 1961		June 30, 1958	June 30, 1961
Power Station	437	437	Share Capital	1,050	1,050
Paper Mill	3,813	3,813	Shareholders' Advances	1,100	1,100
Minus Depreciation	-	1,050	IBRD Debt	2,600	2,119
Net Fixed Assets	4,250	3,200	Current Liabilities	-	537
Current Assets	500	1,074	Surplus	-	695
"Additional Assets"	-	1,227			
	4,750	5,501		4,750	5,501

87. The letter embodying the financial agreement with the company is attached. (Annex 10.)

Markets

88. The paper would be sold within Italy. The present Italian imports of newsprint and magazine paper are about equal to the proposed production of these types in the new mill. Since Italian consumption of paper is growing and imports are controlled with a view to encouraging domestic paper production, SIL may be expected to find a ready market for their products. Existing customs duties of 9-18% will also help the company.

Earnings and Debt Service Coverage

89. During the first year of operations, the paper mill would probably only reach about 60% of capacity, and the operations would break even with no appreciable profit or loss. The situation should improve rapidly however and in the third year the company should reach full capacity with earnings after taxes equal to about 18% on share capital and shareholders advances. (See Financial Forecasts, Annex 11.)

90. The debt service coverage should improve correspondingly from 1.6 times for the first year to 2.7 times for the third year. Even on the assumption of a 10% fall in prices, the coverage during the latter year would still be slightly above 1.5 times which would leave some margin in the event of exceptional price falls or cost inflation in Italy not paralleled in major paper exporting countries.

Economic Justification

91. The mill's production will replace paper imports by 14,000 tons of newsprint and magazine papers and should effect a new saving in future pulp import of 6,000 tons. The net foreign exchange savings are estimated at about L.3.0 billion ($4.8 million) annually.

92. The mill would use regional supplies of wood and straw which, in its absence, would have a very low economic value. In addition to providing new sources of agricultural income and labor, the mill would create about 375 direct employment opportunities for industrial labor.

Conclusions and Recommendations

93. The SIL project is sound and could form the basis for a loan equivalent to L.2.6 billion ($4.16 million), including interest during the grace period for a term of 15 years including 3 years grace period.

FARMEDI

Borrower

94. The proposed borrower would be the Istituto Farmacoterapico del Mediterraneo, (FARMEDI), a new privately owned company which would erect a plant near Palermo, Sicily for the production of pharmaceuticals and agricultural chemicals. The shares in the company will be owned by Consorzio Neoterapico Nazionale (80%) and by Cav. del Lavoro Dante Altieri (20%), the major shareholder of CNN. The total cost of the project is estimated at L. 2.01 billion ($3.22 million), of which it is proposed that L. 1.0 billion ($1.60 million) would be financed from IBRD funds.

Description of the Project

95. The plant would produce a large number of pharmaceuticals for human and animal use, using both local materials and imported antibiotics. It would be located in the industrial zone of Palermo, with adequate transport and utility facilities. It will include a laboratory for research to find new methods of combating agricultural disease and pests.

Present Status

96. The company has purchased the plant site. To date L. 28.0 million has been spent for land and site improvement. Design work is well advanced and construction could start soon after financing is arranged. Construction is scheduled to take three years but some production is expected at the end of the second year.

Management

97. Key operating personnel will be supplied from the parent company, which has had more than 30 years' experience and profitable operation in the same field.

Financing

98. The share capital will amount to 45% of the total investment, including the working capital required. The IBRD funds would amount to 49% of the total investment. The share capital will be paid in as construction progresses. The estimated pro forma balance sheet at the completion of the plant, but assuming operations had not commenced, is shown below. Also shown is the pro forma of the company at the end of the first year of full production, (the sixth year from start of construction), (million lire):

Assets	Upon Project Completion No Operations	June 30, 1961
Fixed assets	1,370	1,370
Less Depreciation	--	361
Net Fixed Assets	1,370	1,009
Current Assets	640	640
"Additional Assets"	--	256
Total	2,010	1,905
Liabilities		
Capital	900	900
Surplus	--	210
IBRD Loan	1,000	685
Current Liabilities	110	110
Total	2,010	1,905

99. Current assets are high in relation to the fixed assets because of the need to carry large stocks of raw materials and finished goods.

100. The letter embodying the financial agreement with the company is attached (Annex 12.).

Markets

101. Most of the production of pharmaceuticals and agricultural chemicals will be marketed in Southern Italy, although an export market may be developed for certain items. Southern Italy has a high incidence of animal and plant diseases. The use of veterinary medicines and agricultural pesticides has been relatively low compared to the use of these materials in Northern Italy and in other Western European countries. Due to the large number of preparations which could be made in the plant, it is not possible to forecast the exact market pattern at this time. However, it appears that the potential market is such that it could absorb the full output of the plant. Many of the products to be placed on the market are not now used in Italy but have been tested and used in other countries successfully.

Earning and Debt Service Coverage

102. Farmedi's earnings forecast shows a net return on equity rising from 5.0% during the first year of operation to 7.5% during the fourth year. Net revenues before interest or depreciation amount to about 1.4 times the required debt service on the proposed IBRD loan. (See Financial Forecasts, Annex 13.)

103. The owners' estimates of operating costs appear very conservative and it is expected that they will show better earnings in actual practice. The parent company is one of the strongest companies financially in the field and currently its net profits amount to more than 10% of net sales.

Economic Justification

104. The high incidence of plant and animal diseases in Southern Italy causes severe losses to the farmers in the region. For example, damages to the three principal crops, grain, grapes, and olives, are estimated to amount to L. 100 billion ($160 million) annually, equal to about 15% of production. Total losses from animal diseases are unknown but certain widespread diseases cause up to a 75% mortality rate among infected animals.

105. The project will make available medicines and chemicals for the effective control of many animal and plant diseases. Some products will be new to the Italian market and will enable certain plagues to be controlled for the first time.

Conclusions and Recommendations

106. The project is sound and could be the basis for a loan in the amount of L. 1.0 billion ($1.6 million) for a term of 11 years including three years grace period.

MANITEX

Borrower

107. The proposed borrower would be the Manitex Company, a privately owned corporation, incorporated in 1954, which would construct a woolen yarn mill near Frosinone in Southern Italy. The total cost of the project is estimated at about L. 1.38 billion ($2.2 million), of which it is proposed that L. 570 million ($0.9 million) would be financed from IBRD funds.

Description

107(a) The mill would have 3,200 spindles designed to produce 360 metric tons of combed yarn per year on two shift operation. Power and water will be purchased from the local utility companies. About 40% of the raw wool will be of domestic origin. The entire output will be sold in Italy, mainly to industrial knitters.

Present Status

107(b) Plans have been completed and construction can start shortly after financing has been arranged. Construction time is estimated at one year.

Management

107(c) Management will be provided by the owners who are experienced in the woolen mill business. One shareholder is the sole owner of a similar mill in Bogomanero, one owns a plant for processing wool and other fiber wastes, while the third has been the technical director of a large wool mill.

Financing

107(d) The company's owners will pay in share capital of L. 300 million and provide, in shareholders' advances an additional L. 300 million.

107(e) Shown below are pro forma balance sheets showing the company's estimated position upon completion of construction, and after five years of operation (million Lire):

Assets	June 30, 1956	June 30, 1961
Fixed Assets	950	950
Less Depreciation	--	450
Net Fixed Assets	950	500
Current Assets	400	400
"Additional Assets"	--	680
Total	1,350	1,580
Liabilities		
Capital	300	300
Shareholders' advances	300	300
Surplus	--	470
IBRD Loan	570	330
Current liabilities	180	180
Total	1,350	1,580

107(f) The letter embodying the financial agreement with the company is attached (Annex 14).

Markets

107(g) The new mill will have less than one-half of one percent of the total combing spindle capacity in Italy. All of the wool yarn produced will be sold locally to the knitting and weaving industry. The company will not export directly but the indirect exports may be expected to be high since Italy is an important exporter of woolen fabrics. The market outlook for combed yarns is good and the present Italian mills in the North making combed yarn are working at near capacity. The proposed mill will be the most southern in Italy and will be in a favorable location to serve the expanding textile market of the south.

Earning Prospects and Debt Service Coverage

107(h) When the plant reaches full production, based on two shift operation, probably in its third operating year, it is estimated the average total cost per kg. will be 3,400 Lire; current market prices are L. 3,700 to L. 4,650 depending on the count. Net profits at normal two shift operation are estimated by the owners at about L. 129 million per year on sales of L. 1,357 million, representing earnings after taxes of about 21% on the total of owners' share capital and advances. Debt service on the proposed loan of L. 570 million would be L. 77 million per year which would be covered 3.3 times by anticipated net earnings before interest and depreciation when the mill reaches normal output. (See Financial Forecasts, Annex 15.)

Economic Justification

107(i) The proposed mill will be of modern design and equipment capable of producing competitively for growing local demand or export. Some of the mill's yarn, although sold locally, will be knitted or woven into export goods, thus earning foreign exchange. The mill will also benefit the economy by providing an increased market for local wool, and by employing about 200 workers.

Conclusion

107(j) The project is sound and could be the basis for a loan in the amount of L. 570 million ($0.91 million) for a term of 12 years including a two year grace period.

CATANIA IRRIGATION PROJECT

GENERAL

108. The Cassa submitted five major irrigation projects for consideration:

a) the Campidano di Cagliari project in Sardinia;

b) the Catania project in Sicily;

c) the Metaponto project in Lucania;

d) the Tavoliere project in Apulia; and

e) the Volturno project in Campania.

109. Of these five projects, the Catania project has been chosen as having highest priority, because:

a) it is the most productive of the irrigation projects in the long run;

b) it concentrates primarily on citrus fruits and provides Italy with an important export crop, and thus strengthens her balance of payments outlook;

c) Sicily is one of the most over-populated regions of Italy and suffers from serious under-employment. Irrigated citrus production is the most labor-intensive form of land transformation;

d) its execution and successful operation ties in harmoniously with the industrial projects in the island which are recommended for Bank financing: a citrus processing plant, a cement plant, two fertilizer plants and a pharmaceutical plant producing insecticides.

PRESENT STATE OF AGRICULTURE IN THE PROJECT AREA

110. The Catania plain lies near the east coast of Sicily, south of the city of Catania (300,000 inhabitants) and of the volcano Etna. The area of the plain is about 40,000 ha. (100,000 acres). Through it run the river Simeto and two of its tributaries, the Dittaino and the Gornolunga. (See Map, Annex 16).

111. At present an extensive form of agriculture with low yields is practiced. The central part of the plain is periodically inundated by floods.

The average annual rainfall is about 660 mm., most of which falls between November and February. The whole area is short of water in the summer (May through October). June, July and August are almost completely dry. Both the quantity and the distribution of rainfall are thus unsuitable for intensive agriculture.

112. The project area covers about 31,000 ha. of this plain. The main crops now grown are wheat, coarse grains, beans and some citrus. The gross agricultural production is estimated to be about Lire 3.5 billion per annum.

113. There are some 1,500 farms in the area, most of them of medium size. About 5,000 ha. are in small farms (less than 20 ha.); some 17,000 ha. are in medium size farms (20-100 ha.), and the rest is in larger farms. Very few farms are over 500 ha. Land reform, in the sense of splitting up large estates, is thus not a problem.

114. The small farms are usually owner-operated. The larger ones are mostly operated on a share-cropping basis. A common pattern is two-thirds of the crop for the owner (who supplies equipment and draft power) and one-third for the laborers. Expenses for seeds, etc. are shared on the same basis.

115. The average gross yield is about Lire 900,000 per ha. ($580 per acre) for the relatively small area in citrus orchards, and only about Lire 60,000 per ha. (less than $40 per acre) for the rest.

116. The soils and temperatures of the area favor an intensive and very productive form of agriculture. However, this cannot be achieved unless the water supply can be brought under control, by flood control, drainage and irrigation works.

THE PROJECT

117. The project includes irrigation works to serve initially about 31,000 ha., flood control and drainage works. The works are designed to permit subsequent power development.

118. Water for irrigation will be stored in two reservoirs: the first already constructed at Ancipa, from which some 14 million m^3 should be available annually, the second to be constructed at Pozzillo, from which 100/130 million m^3 should be available annually. The Pozzillo dam will be 55 m. high, constructed of concrete blocks, with a useful capacity of 130 million m^3. It will be constructed across the Salso river, an affluent of the Simeto.

119. Water will be conducted from these two reservoirs through a system of river-beds, canals and tunnels to the beginning of the distribution system. The canals and tunnels will be constructed so as to make possible the future installation of hydroelectric plants, which are not a part of the present project.

120. The distribution system will consist of three main canals, with numerous secondary and tertiary channels. The three main canals are:

a) the "Passo d'Ipsi" canal (43 km in length, upstream capacity 8.4 m^3/sec.) which will serve about 15,500 ha. of the western part of the plain, between the elevations of 100 and 60 m. It will be fed from a point on the Simeto riverbed at elevation 105 meters, where a barrage will be constructed through two canals and a syphon;

b) the "Gerbini" canal (35 km in length, upstream capacity 11.6 m^3/sec.) which will serve about 9,200 ha. in the center of the plain, beginning at an elevation of 60m. It will be fed from a penstock leading down from the entrance to the Passo d'Ipsi canal;

c) the "Paterno" canal (18 km in length, upstream capacity 3.2 m^3/sec.) which will serve about 6,200 ha. in the north of the plain. This canal will branch off the Gerbini canal about 7 km from its origin, and will run under the Simeto in a syphon.

121. The areas to be irrigated will be divided into units of about 100 ha. called "commizzi." About 300 km of secondary canals will deliver water to these commizzi, within which some 1,200 km of tertiary canals (60 litre/sec.) will bring the water to individual farms.

122. Apart from these irrigation works, there will be a system of levees, drainage canals and structures to protect the irrigated area from floods. The project also includes about 50 km of farm to market roads, the planting of wind breaks, the installation of electric service and various other structures to serve the irrigated area.

AVAILABILITY OF WATER

123. The principal source of water will be the Salso river, on which the Pozzillo dam will be built. The drainage area is 577 km^2, with an average rainfall of 726 mm. The average annual flow is 125 million m^3, and the minimum is likely to be 100 million m^3.

124. Some 14 million m^3 should be available from the Ancipa reservoir, and a further 48 million m^3 from the limited drainage area below the dams.

125. The annual minimum available in the system should thus be about 162 million m^3. The total requirement (based on an average application of 5,000 m^3 per ha.) for the net area to be irrigated of 30,000 ha. will be about 150 million m^3 per year. Distribution losses will be low because channels all the way to field delivery will be of concrete.

THE TRANSFORMATION OF AGRICULTURE IN THE PROJECT AREA

126. Once the project is completed, the main crops, produced by a system of intensive farming, should be citrus, livestock products, vegetables, industrial crops (eg. cotton and sugar beet), tomatoes and wheat.

127. The change from extensive to intensive farming may involve some subdivision of farms. There are farms now operated by a farmer and his sons, or by a number of brothers, which could profitably be split up into smaller holdings when it becomes possible to increase the yield per hectare. Some farmers may wish to sell part of their holdings in order to finance the transformation of the remainder. There are likely to be plenty of prospective buyers for any farmland placed on the market.

128. The change in the method of farming will also increase the demand for farm labor, and should provide additional employment for the equivalent of some 10,000 whole-time laborers. This is one of the attractive features of the whole scheme, since there is a large under-employed population in this part of Sicily.

129. Farmers will need to be educated in the economical use of irrigation water, methods of growing new crops, the use of fertilizers, etc. The agricultural extension service should be in a position to provide this help, since the agricultural college established a few years ago in Catania will produce the necessary additional qualified staff.

130. The intensive system of farming will involve an extended use of machinery and equipment. These will be available from Italian sources, and there should be no lack of servicing facilities.

131. The farmers are obliged by law to take the steps necessary to obtain the full advantage to be derived from the public works. This means that they have to construct irrigation channels and drainage ditches, and (on farms larger than 5 ha.) houses for workers and that they must level their land, plant orchards or increase their stock of cattle to certain minimum limits, and link their farms to the public road system. They will also need more working capital.

132. The cost of this private investment is estimated below. The incentive to undertake it (apart from the legal obligation) is partly in the special financial facilities available (also described below), and partly in the high yield to be expected from it.

133. All in all, conditions are favorable for the successful transformation of agriculture in the area when the project is finished.

STATUS OF WORKS AND CONSTRUCTION SCHEDULE

134. The Ancipa dam has been built. About 10% of the system of levees and drains (particularly for river control) has been completed. Some 15 km of roads have been built.

135. Bids have been received for the construction of the Pozzillo dam, and a contract should be awarded shortly.

136. Most of the design work on the system for bringing water from the reservoirs to the main distribution canals has still to be finished.

137. Several different consultants have worked out the detailed designs of the main canals. Some coordination of their work remains to be done by a well-known Italian consulting engineer. Bids on some of the work can be invited within a few months.

138. Designs for the network of minor canals, and for other minor works, are fairly detailed, but need to be completed and coordinated.

139. The engineering work that has been done is of high quality.

140. The Cassa expects that the Pozzillo dam will be finished by the end of 1957; that work on the main canals and irrigation network will continue from 1955 to 1961; and that the construction of the rest of the project (drainage and river control works, roads, aqueducts and other minor works) will be finished by the end of 1960. Provided that the designs are coordinated and completed without delay, this schedule is reasonable, except that there is some doubt whether the Pozzillo dam can be finished by the end of 1957.

141. The first water for irrigation will become available in 1958 and will be distributed to the outer regions of the plain. Agricultural production should gradually increase from that time. The full increase in production cannot be realized before 1967 (six years after the project is finished), because citrus trees need this time to mature.

ORGANIZATION AND MANAGEMENT

142. The Cassa will assist, coordinate and supervise the construction and initial operation of the project. Direct responsibility for this work is divided between three bodies:

a) The Ente Siciliano di Elettricita (ESE) will give technical advice on the construction of the Pozzillo dam.

b) The Ente Riforma Agraria Siciliana (ERAS) will be responsible for constructing the Pozzillo dam, the intake works and the irrigation network.

c) The Consorzio de Bonifica della Piana di Catania, an association of local landowners sponsored by the Government, will work under ERAS in constructing the intake works and the irrigation network, and under the Cassa in constructing roads and executing stream control and drainage works. It will operate the whole system when completed.

143. Although the Consorzio has had no experience in constructing and operating modern irrigation networks, ERAS and the Cassa should be able to supply the necessary guidance and supervision.

COST ESTIMATES

144. The estimated costs of the project are based on bids received for the Pozzillo dam, and on experience with similar works elsewhere for the rest of the works. They include adequate provision for engineering, supervision and contingencies. The following table shows the estimate for each of the main elements:

	Million Lire	Million $ Equivalent
Pozzillo dam	5,200	8.3
Intake, main canals) and irrigation networks)	17,700	28.3
Drainage and stream control	3,900	6.23
Roads, aqueducts, etc.	2,400	3.84
Interest during construction	1,250	2.0
Total	30,450	48.67

145. The Ancipa dam has already been completed by ESE, and no part of its cost is to be charged to the present project.

146. For estimating purposes, it has been assumed that the project will receive a loan of $20,000,000 equivalent (L. 12.5 billion) at 5% with a grace period of about three years, during which interest will be capitalized.

147. Of the total amount, the Cassa has already spent L. 1,480 million for drainage, river control, roads, aqueducts, etc.

148. As stated above, farmers are obliged by law to carry out the works necessary to enable their farms to take full advantage of the irrigation facilities. The total amounts (including working capital) involved are estimated as follows:

	Citrus orchards	Other farms	Total
	(5,500 ha.)	(22,000 ha.)	(27,500 ha.)
Per hectare	L. 707,000	678,000	680,000
Total	L. 3,888 million	14,916 million	18,800 million

149. These investments will of course be spread over a number of years. Of the total area of the project (31,000 ha.), some 2,500 ha. is already under citrus crops; the balance of 1,000 ha. will be used for roads, ditches, canals, etc.

SOURCES OF FINANCE AND OWNERSHIP OF WORKS

150. Of the total amount required for the project, the Consorzio is committed to contribute L. 2,950 million. Some of this may be raised from the resources of the member landowners, but most of it is likely to be borrowed

from one of the banks designated by the Government to handle this kind of loan, at an interest rate of 5.8% on a 15-year term. The service of this debt, (about L. 250 million per annum) together with the costs of administration, operation and maintenance of the project estimated to amount to about L. 4,000 per ha., or about L. 120 million per annum, would be collected by the Consorzio from its members by way of assessments which have the legal status of Government taxes. No specific charge will be made for water.

151. The schedule for the expenditure of the balance of the cost (L. 26,286 million, excluding interest during construction) is as follows:

	L. Million	$ Equivalent 1,000
Already Spent	1,480	2,560
1955	3,592	5,750
1956	5,139	8,222
1957	5,125	8,220
1958	2,900	4,640
1959	2,650	4,230
1960	2,400	3,840
1961	3,000	4,800
Total	26,286	42,262

152. It is proposed that the Bank loan should include an amount of $20 million (L. 12.5 billion equivalent) which would be used to meet the bulk of the payments falling due in the years 1955, 1956 and 1957.

153. This amount ($20 million) would include interest during construction for these years, amounting to about L. 1,250 million ($2 million equivalent). This would increase the total cost to be borne by the Cassa to about L. 27,530 million ($44.3 million equivalent).

154. The farmers, who will need to invest some L. 19 billion in improvements, can obtain grants of up to 38% of the cost of their land improvement works, and loans for the balance of the cost if necessary. The grants, which are expected to amount to about L. 3.5 billion, come from Cassa funds, and the banks making the loans will receive the funds to do so from the Cassa. The banks charge 5½% on these loans, of which the farmer pays 3% and the Cassa 2½%. When the project has been finished, the ownership of the works will be as follows:

Pozzillo dam	97.5%	Ministry of Agriculture
	2.5%	Consorzio
Irrigation and drainage canals, reclamation roads	87.5%	Ministry of Agriculture
	12.5%	Consorzio
Stream and river control works	100%	Ministry of Public Works

BENEFITS

155. The annual gross production of the area should rise to about L. 14 billion, or by 300%, when the project has been finished and the new citrus orchards are in full production.

156. The farmers will have to meet the increased costs involved in intensive cultivation (including increased labor costs), the service on loans for farm improvement, their assessments to the Consorzio, etc., but their net profit per ha., which is now about L. 60,000 annum, should rise to almost three times this figure. The intensive method of cultivation will provide employment for the equivalent of 10,000 additional whole-time farm laborers.

157. Taking farmers and farm laborers as a group, the annual income of the group will rise from about L. 2.5 billion to some L. 10 billion.

158. A comparison of the increase in farmers' annual income with the amounts invested by farmers in the improvement of their farms shows that the yield on the investment is about 15% for mixed farms and may be over 70% for citrus orchards.

159. The Consorzio, which is intended to be a self-supporting service organization, will be able to obtain from its members the funds needed to operate the project and to service its borrowings.

160. The Government will benefit by increased land and income taxes, estimated to yield some L. 330 million per annum. Indirect taxes may bring in an additional L. 770 million. The total of L. 1.1 billion increased Government revenues from the agricultural sector represents a return of 4% on the government investments in the project. This takes no account of Government revenues from the movement and processing of the agricultural products, or of those arising from induced development in nonagricultural fields.

161. The balance of payments should be favorably affected. Additional exports may well reach an annual value of about L. 10 billion, more than four times the value of present exports from the project region. Against this must be set the increased imports which will accompany the development of the area. The net improvement may be of the order of L. 6 billion (nearly $10 million equivalent) annually.

162. The effects of the project on the general economic development of the area will include an increased demand by farmers for farm requisites, consumer goods, and the services of processing industries and packing plants, which may well come to handle four to five times their present volume.

CONCLUSIONS

163. The Catania irrigation project is well designed to transform a backward agricultural area in Sicily into a highly productive region of intensive farming.

164. There are adequate supplies of water to carry out the scheme. It is well engineered. The Cassa is responsible for the execution of the project, and is in a position to ensure that this is efficiently done by ERAS and the Consorzio. The Government is in a position to ensure the efficient operation of the completed project by the Consorzio. The construction schedule and the cost estimates are reasonable, provided that final designs are completed promptly. The arrangements for financing the public investment and the credit facilities available for the private investment are satisfactory.

165. The project is suitable for Bank financing. An amount of $20,000,000 would be appropriate, and could be drawn before the end of 1957.

POWER PROJECTS

GENERAL

166. The program financed by the Cassa with its own funds does not include power projects. Since adequate expansion of power facilities in the area of Cassa operations is essential to full economic development, it is an appropriate field for consideration by the Bank.

167. The total installed capacity in Italy at the end of 1954 was about 12 million kw which, in that year, produced about 35.4 billion kwh. In the Cassa area, which contains 37.5% of the total population of Italy, the installed capacity was about 1.35 million kw which produced about 4 billion kwh (11% of total for all Italy).

168. The programs of nine companies operating in the Cassa area were submitted for Bank consideration. Out of this group three companies, Societa Meridionale di Elettricita (SME), Societa Generale Pugliese di Elettricita (Pugliese) (a subsidiary of SME) and Unione Esercizi Elettrici (UNES) were selected, since the expansion of their facilities has high priority in the Cassa area. These companies now have an installed capacity of about 765,000 kw and an annual production of about 3.3 billion kwh serving practically all of continental southern Italy with the exception of the Rome region (See Annex 17). The projects proposed for financing would add 221,700 kw to installed capacity and increase annual generation by some 740 million kwh.

169. The following appraisal of the investment programs of the three companies and of projects proposed for financing with Bank funds is based on information supplied by the companies and on field investigations.

170. The detailed appraisals lead to the conclusion that projects included in the programs of these three companies could serve as the basis for loans totalling $30 million equivalent out of the proceeds of the proposed Bank loan to the Cassa, as follows:

SME	$ 9	million equivalent
Pugliese	12	" "
UNES	9	" "
Total	$30	million equivalent

SOCIETA MERIDIONALE DI ELETTRICITA (SME)

THE COMPANY

171. SME was founded in 1893 with an initial share capital of L.1 million of which 60% was subscribed by a French-Swiss company. Share capital has been increased over the years to the amount, as of April 1955, of about L.62.2 billion of which about L.56.5 billion has been paid in.

172. The company was privately controlled until 1931 when Istituto Ricostruzione Industriale (IRI), a government-owned holding company, acquired controlling interest. In 1952, the government created Finanziaria Elettrica

Nazionale (FINELETTRICA) as a subsidiary of IRI to manage its interests in various power companies. This company now owns 18% of the shares of SME and will gradually acquire about 13% still held by IRI. The distribution of shares of SME at present is as follows:

Soc. Finanziaria Elettrica Nazionale (FINELETTRICA)	18.14 %
Soc. Italiana per le Strade Ferrate Meridionali (Bastogi Group)	13.69 %
Istituto Ricostruzione Industriale (IRI)	13.34 %
Soc. Financiere Italo-Suisse	11.41 %
Others	43.42 %
	100.00 %

173. The SME group consists of the parent company and five subsidiaries.1/ The parent company distributes power in Naples and the surrounding area as well as to certain large consumers in other areas (See Map, Annex 17). The balance of service is provided by the subsidiary companies. SME has holdings in other power companies, the most important of which is UNES, as well as in a gas utility and an electric equipment company.

174. Consolidated net assets of the SME group at the end of 1954 amounted to about L.200 billion ($320 million) of which about 75% was represented by fixed assets. The capital structure of the group shows a debt/equity ratio of 20/80. Gross revenues increased from about L 18 billion ($28.8 million) in 1950 to about L.33 billion ($52.8 million) in 1954 or 80%. Profits after financial charges increased from L.3.3 billion ($5.5 million) to L.5 billion ($8 million) or 50%.

175. Most of the long-term debts consist of loans from the Istituto di Credito per Imprese di Publica Utilita (ICIPU) (a government controlled institution) which account for two-thirds of the total. The remainder are ERP credits obtained through Instituto Mobiliare Italiano (IMI) with L.5.3 billion ($8.5 million) outstanding, various bond issues totalling L.3.7 billion and some smaller long and medium-term credits. The ERP credits represent obligations in U.S. dollars. Practically all of these loans are secured by mortgages and special liens on specific properties.

176. The group uses short-term bank credits to meet a part of its construction expenditures which it converts to long-term secured debt or covers by issue of additional shares on completion of the works. Since the group has continuing construction expenditures, however, the short-term bank debts are renewed and constitute a semi-permanent floating debt, the size of which varies with requirements from time to time. At the end of 1954 such debts amounted to L.11 billion ($17.6 million) and were partly in the form of overdrafts in current account and partly in four month promissory notes. Part of this short-term debt is normally secured by collateral. Although all of these debts are for periods shorter than one year, agreements exist by which these operations are renewed to cover a one year period, after which the agreements are renewed if necessary. The interim financing of construction work by short-term loans in such large amounts involves a certain financial risk. The group is aware of this risk, and their financial plans provide for a substantial reduction of the

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1/ Campania, Pugliese, Calabria, Lucana and Sebi. (See Annex 18)

floating debt by funding operations during the next three years. This problem is further discussed in the section being paragraph 318.

177. The financial position of SME alone is shown in condensed balance sheets given in Annex 19. The position at the end of 1954 showed total assets of L.158.5 billion ($254 million) of which L.108 billion ($172 million) were fixed assets. Successive revaluations have been authorized by law in the post-war period which have resulted in a net write-up of assets of about L.68.2 billion ($109 million) of which L.25.8 billion ($41.3 million) has been capitalized by the issue of bonus shares. At the end of 1954, a balance of L.42 billion ($67.2 million) remained in the revaluation reserve. At the end of 1954, total long-term debt amounted to L.31.9 billion ($51 million). Equity amounted to L.93.2 billion ($149 million) giving a debt-equity ratio of 26/74.

178. The company's earnings record for the past 20 years has been good. It showed a net profit in each year except 1944, 1945 and 1946 during which its facilities were limited as a result of the war damage. Annual dividends ranging from 6.4 to 7.5% have been paid since 1947. Condensed profit and loss statements for the period 1952-54 are given in Annex 20.

MANAGEMENT

179. The general policies of the group are established by a Board of Directors of SME consisting of 16 members representing major shareholders. A number of the directors have a long experience in the management of power utility companies. The central management of SME consists of a Director General and three General Managers in charge of engineering, finance and administration, respectively. These men have a long record of service with the company and are experienced and efficient power utility executives. The organization and management of the company is satisfactory.

EXISTING FACILITIES OF THE SME GROUP

180. The generating, transmission and distribution facilities of SME and its subsidiaries form an integrated system which is interconnected with the Italian network. The group serves an area of about 57,000 sq. km with a total population of about 10.9 million which is about 23% of the total population of Italy.

181. At the end of 1954, the group had 62 hydroelectric plants, 35 of which had a capacity of more than 500 kw each, and three thermal plants. The total effective capacity was 660,000 kw of which 510,000 kw was hydro. Plants constructed in the post-war period represented 40% of the existing hydro and 60% of the thermal capacity.

182. In an average water year, production from the hydro plants amounts to 2.3 billion kwh. Reservoir capacity in the system amounts to the equivalent of 546 million kwh. The average annual load factor on the system is .4.

183. The system includes 3,815 km of high tension transmission lines with 1.2 million kva of substation capacity and about 23,000 km of secondary and low tension transmission lines with a substation capacity of about 7 million kva.

184. The entire system is well maintained in accordance with sound utility practice.

185. In addition to the power generated in the plants operated by the group, power is purchased from other companies, amounting to about 20% of the total amount available to the system. The major supplier is "TERNI" Societa per l'Industria e l'Elettricita. The existing contract between the two companies provides for an annual supply of 400 million kwh with a peak load of 88,800 kw. It expires in 1956 but includes a provision for automatic extension. As a large part of TERNI operations is based on production and sale of power on a wholesale basis, there is no reason to believe that the arrangement will be discontinued.

186. Another source of supply of power is the Societa Trentina di Elettricita which operates hydro plants in northern Italy. SME has holdings in this company and a proportional part of the power it produces is supplied to SME at cost. In an average hydrological year this amounts to about 92 million kwh net of losses, with a peak capacity of 25,500 kw. Smaller amounts of power are also purchased from a number of other companies, totalling in an average year about 50 million kwh. (See Annex 21).

187. SME also purchases, mainly through TERNI, surplus power which is available from northern Italy during the summer months which is partly offset by sales of surplus power by SME during the winter months.

188. As shown in Annex 24 the available capacity in the system has been adequate to meet the peak load over the past nine years. The system, however, has not been able to meet production requirements in dry years such as 1949. (See Annex 25).

189. The losses in the system were relatively high during the first post-war years but have been steadily reduced and amounted in 1954 to about 18% of total power available in the system. This is not considered to be excessive, taking into account the large number of transmission and distribution lines included in the system. Own uses in the system amount to about 2% of total power availability.

THE POWER MARKET

190. In 1954, the peak load on the system was 670,000 kw and sales amounted to 2.33 billion kwh. During the period 1946-54, sales of energy have increased at an average annual rate of about 13%. During the same period, the peak load on the system has increased at an average annual rate of 11%.

191. The power market in the area served by the SME group is characterized by a high proportion of industrial consumption which, in 1954 amounted to 1.52 billion kwh or 65% of total sales. The major power consuming industries are metals, machinery, chemicals, textiles and food processing.

192. The average annual increase in sales over the period 1955-1964 is estimated at 10%. Proportions by principal categories are given in Annex 22. In recent years the general industrial load has increased about 16% per year while that of the electro-chemical and electro-metallurgical industries has increased at a rate of about 21% per year. In the forecasts, the former is assumed to increase about 14% per year with only a small increase in the latter group. These estimates are considered to be realistic in view of the industrial expansion which will result from the Cassa program.

193. The proportions of domestic load assume an annual increase of about 8% which is based on an increase of consumers of 5% and an increase in consumption per consumer of about 3%. In 1954, average power consumption in south Italy was 220 kwh per capita as compared with 1,100 kwh in north Italy.

THE INVESTMENT PROGRAM OF THE SME GROUP

194. The investment program of the SME group has been formulated for the period 1955-1960. This program can be divided into two parts for the purpose of this study. The first part includes those projects to be executed during the period 1955-1957 and which are proposed for financing out of the proceeds of a Bank loan to the Cassa. This portion will add about 75,000 kw of new hydro and 120,000 kw of new thermal capacity to the system. About 740 km of new transmission lines and 370,000 kva of substation capacity are included along with the necessary expansion of distribution facilities. The estimated cost of this part of the program is as follows:

	1955-57 Million Lire
Generating Plants	15,915
Transmission lines & substations	18,520
Distribution	17,150
Total	51,585

195. The second part of the investment program to be carried out in 1956-1960 will probably include additions of 150,000 kw of hydro and 300,000 kw of thermal capacity along with about 900 km of transmission lines, 700,000 kva of substation capacity and necessary extensions of the distribution systems. The estimated cost of the second part is as follows:

	1956-60 Million Lire
Generating Plants	53,000
Transmission lines & substations	20,850
Distribution	45,250
Total	119,100

196. For details of these programs see Annex 23. When related to estimated load and production requirements, the proposed investment program is barely sufficient (assuming no material increase in purchases of power) to provide facilities to cover the increase in peak load and production will be about equal to the requirements in a dry year. The program is fully justified on the basis of need.

PROJECTS PROPOSED FOR BANK FINANCING

197. Within the program of the SME group, it is proposed that three projects to be executed by the parent company to be completed by the end of 1957 should form the basis for a loan of about $9 million from the Cassa out of Bank funds. The important features of these projects are as follows:

A. LUZZI HYDRO POWER PLANT

Description

198. The Luzzi Power Plant will form the second stage and will complete the utilization of the water resources of the Mucone River basin, located in the central part of the Calabrian peninsula. The works of the first stage, which was completed in 1953, included the construction of the Acri Power Plant with an installed capacity of 88,000 kw and the Cecita Reservoir, which with a capacity of 107 million cubic meters will provide seasonal regulation for the operation of both power plants.

199. The intake of water to the Luzzi Plant will be connected directly to the tailrace tunnel of the Acri Plant and to auxiliary intake works which will be constructed in order to utilize the river flow downstream of the Cecita Reservoir. The water will be conducted through a 9,755 meter concrete lined pressure tunnel to a surge tank from which a 1,075 meter long single steel penstock will lead to the powerhouse.

200. The powerhouse will be equipped with two Francis type turbines, operating under a head of 306 meters, each driving a generator rated at 32,000 kw.

201. An outdoor substation will be provided with two 3-phase transformers rated at 32,000 kva and connected by an existing 220 kv transmission line to the substation of the Acri Plant which is already connected to the SME system.

202. Flow records for the Mucone river exist from 1930. The regulated flow from the Cecita Reservoir is 3.4 cubic meters per second. With the additional flow available from the auxiliary intakes, the total average flow available for the Luzzi Plant is estimated at 5.15 cubic meters per second. The plant will be operated as a peak load unit with an average annual production of about 110 million kwh with a load factor of 0.20.

203. The design and engineering of the project have been carried out by the engineering staff of SME. The project is sound from an engineering standpoint. The project is being constructed by Italian contractors under the supervision of the SME engineering staff. The quality of the work is very good.

Present Status and Schedule of Construction

204. Actual construction work was started in 1953. At the end of April 1955, a major part of the civil works had been completed and the first generating unit was ready to be tested. This unit is scheduled to be in operation in July and the second unit in September 1955. Final completion of the project is expected by the end of 1955. This schedule is considered realistic.

Estimated Cost

205. The total estimated cost of the plant amounts to Lire 7 billion ($11.2 million). A breakdown showing the cost of principal items is given in Annex 26.

206. The estimate is based on actual expenditures incurred up to December 31, 1954, and existing contracts with equipment suppliers and construction contractors. It includes adequate allowances for supervision of construction, overhead expenses and interest during construction. The estimate is realistic.

207. The cost per installed kw is equivalent to about $175 which is low for a hydro installation.

Schedule of Expenditures

208. The schedule of expenditures is estimated as follows: (in millions of Lire)

	1952-54	1955	1956	Total
Expenditures	4,685	2,200	115	7,000

B. MATESE HYDRO POWER PLANTS

Description

209. The capacity of the two existing Matese Hydro Plants located north of Naples will be doubled by the addition of two units (one to each plant) having a capacity of 21,000 kw. The existing plants were completed in 1923 and utilize the water of the natural Matese Lake, which has a storage capacity of 14 million cubic meters. They were designed to provide for the expansion now planned and intake structures and tunnels were constructed for the increased flow now required.

210. In the upper plant, the works to be carried out will consist of the installation of a 1,029 meter long steel penstock and the construction of an addition to the existing powerhouse. A Pelton type turbine which will operate under a head of 480 meters and a generator with a rated capacity of 11,000 kw will be installed. An outdoor substation will be provided and a 14,000 kva 3-phase transformer installed.

211. In the lower plant, the works to be carried out will consist of the installation of a 772 meter long steel penstock and the construction of an addition to the existing powerhouse. A Pelton type turbine which will operate under a head of 360 meters and a generator with a rated capacity of 10,000 kw will be installed.

212. A 40,000 kva 3-phase transformer will be installed in the existing outdoor substation. A 25 km long 150 kv transmission line will be constructed to connect the Matese Plants with the 150 kv grid of the SME system at Marzanello.

213. The average flow from the Matese Lake is 1.2 cubic meters per second, which corresponds to an average annual production of 46 million kwh at a load factor of 0.13. The plants are designed to provide peaking capacity to the SME system.

214. The design and engineering of the plants have been carried out by the engineering staff of SME. The project is sound from an engineering standpoint. The project will be constructed by Italian contractors under the supervision of SME engineers.

Present Status of Engineering and Schedule of Construction

215. Detailed plans and specifications have been prepared and bids have been received for major equipment items. Construction work is scheduled to start in the middle of 1955 and will require about two years to complete. This schedule, which is mainly determined by the delivery time of the generating equipment, is realistic.

Estimated Cost

216. The total estimated cost of the expansion of the two plants amounts to L.1.28 billion ($2.05 million). A breakdown showing the estimated cost of principal items is given in Annex 27.

217. The estimates are based on firm bids on equipment and on present wages and prices. They include reasonable allowances for engineering, supervision, overhead, interest during construction and contingencies, and are realistic.

Schedule of Expenditures

218. The schedule of expenditures is estimated as follows: (in millions of Lire)

	1955	1956	1957	Total
Expenditures	180	900	200	1,280

C. MUCONE - ROTONDA - FRATTA 220 KV TRANSMISSION LINE

Description

219. The Mucone - Rotonda - Fratta 220 kv transmission line will connect the Sila and Mucone hydropower plants with the Fratta substation outside Naples, where it will be connected to the existing 220 kv line to Popoli substation. It will parallel an existing 150 kv transmission line.

220. The 287 kilometers long single circuit transmission line will be constructed with steel towers, steel reinforced aluminum conductors and steel ground wire. It will have a maximum capacity of 150,000 kw.

221. At Popoli substation 3 single phase 25,000 kva transformers with necessary switchgear will be installed to provide a connection between the 220 kv and the existing 150 kv lines of the system. Similarly at Tusciano substation 4 single phase 25,000 kva transformers will be installed with necessary switchgear to connect the 220 kv line to the existing 150 kv and 60 kv lines served by this substation.

222. This expansion of the transmission line system has been designed and engineered by the engineering staff of SME to meet future operating requirements of the system and is sound from an engineering standpoint. Construction is being carried out by Italian contractors and the work is of good quality.

Present Status and Schedule of Construction

223. The construction of the first section of the transmission line, Mucone - Rotonda, has been completed and work on the second section was started in April 1955. The complete line is scheduled to be put in operation by February 28, 1956, and the substations by December 31, 1956. This schedule is realistic.

Estimated Cost

224. The total estimated cost of the transmission line with substations amounts to lire 3 billion ($4.8 million). A breakdown showing the cost of principal items in given in Annex 28. The estimate is based on present wages and prices. Reasonable allowances have been made for engineering, overhead, interest during construction and contingencies. The estimate is realistic.

Schedule of Expenditures

225. The Schedule of expenditures is estimated as follows:

(in millions of Lire)

	1953-54	1955	1956	Total
Expenditures	995	1,655	350	3,000

METHOD OF FINANCING

226. Capital expenditures required during the three-year period 1955/57 to complete the projects of the SME Company selected for Bank financing, are estimated at Lire 5.62 billion (9 million). This amount is proposed to be financed out of the proceeds of the loan from IBRD to the Cassa, and represents 49% of the total costs of these projects. Other projects included in the present program of SME, scheduled for completion during 1955/57, are estimated to require investments of Lire 16.5 billion ($24.8 million). In 1956, additional works are scheduled to be started, which will continue beyond 1957. If the investments for these additional works during 1956/57, estimated at Lire 11.2 billion (18 million), are also taken into account, total capital investments for new construction by SME during 1955/57 will be of the order of Lire 33.3 billion ($55.3 million), as follows:

	Billions of Lire	
a) Projects to be completed during 1955/57		
a) IBRD projects	5.62	
b) Other projects	16. 6	
		22.08
b) Projects to be completed during 1956/60		
Expenditures 1956/57		11.20
		33.28

227. In addition to the investments for construction to be carried out by SME as shown above, the Company will have to make capital investments in its subsidiaries. It is, therefore, more appropriate to consider the requirements and the proposed financing plan for the SME group of companies as a whole for the period 1955/57 as follows:

		Billions of Lire	
I.	Projects to be completed during 1955/57:		
	a) IBRD Projects:		
	(1) S.M.E.	5.6	
	(2) Pugliese	12.6	18.2
	b) Other Projects:		
	(1) S.M.E.	16.5	
	(2) Pugliese	9.5	
	(3) Other companies	7.4	33.4
	Total		51.6
II.	Expenditures in 1956/57 on Projects to be completed during 1956/60		
	(1) S.M.E.	11.2	
	(2) Pugliese	-	
	(3) Other companies	3.3	14.5
	Total requirements for 1955/57:		66.1

228. The proposed financing plan of S.M.E. to cover investment requirements for the period 1955/57 for the group is as follows:

	Consolidated Financing Plan 1955/57 (In Billions of Lire)		
Sale of share capital			21.3
Borrowing (Long and medium term):			
a) From IBRD for			
(1) S.M.E.	5.6		
(2) Pugliese	7.5		
	13.1		
b) From other sources (net of discounts amounting to 2.0)	29.9		43.0
Own resources (1)			13.5
			77.8

(1) Retained earnings and depreciation allowances not required for debt service, plant renewals, etc.

229. This plan provides funds of L. 11.7 billion in excess of the requirements of the group for the 3-year period. This excess would be used to convert short-term bank credits to long-term borrowings and for participation in new issues which UNES will make in 1956/57.

230. According to this plan, if loans of L. 13.1 billion ($21 million) are obtained from the Bank, S.M.E. must still raise about L. 50 billion as new share capital and loans. This plan may be optimistic and to the extent that funds could not be raised, work on the second part of the program starting in 1956 would need to be deferred. The Project Agreement contains a provision that priority will be given to the project financed with the aid of Bank funds.

FINANCIAL FORECASTS

Pro-forma Balance Sheet - S.M.E.

231. By the end of the 3-year period 1955/57 the net book value of the fixed assets of the S.M.E. group is expected to amount to L. 195 billion ($312 million) after deduction of a depreciation reserve of L. 88 billion ($140 million). Long and medium term debt would amount to L. 70 billion ($112 billion) and the equity to L. 140 billion ($224 million). This represents a debt-equity ratio of 1/2.

232. The estimated financial position of the S.M.E. company alone is given in Annex 29. Fixed assets, after depreciation amounting to L. 50.6 billion ($80.9 million) stand at L. 130.9 billion ($209.4 million). Long and medium term debt would be L. 50.2 billion ($80.3 million), and equity L. 117.9 billion ($188.6 million). The debt-equity ratio would be about 30/70.

Future Earnings

233. A forecast of future earnings of S.M.E. for the period 1955/59 is given in Annex 30. The estimates for revenues from sales assume certain rate increases as discussed in paragraphs 305-317 below. On this assumption net income after depreciation and interest on all outstanding debt will be sufficient to maintain an annual dividend of from 7 to 7½% on the increased share capital.

Forecast of Cash Flow

234. A forecast of receipts and expenditures for the period 1955/59 is given in Annex 31. This forecast assumes further expansion starting in 1956 consisting of projects the construction of which will not have been completed by the end of 1957. In this forecast no annual cash accruals are shown, because the amounts of new financing to be undertaken by way of borrowing and increases in share capital have been set at amounts which will make total receipts equal to total expenditures. However, provision

has been made for the reduction of bank debts. At the end of the period 1955/57, the net working capital position therefore would be satisfactory.

Debt Service

235. It has been assumed, for purposes of calculation, that the loan made by the Cassa out of Bank funds for the projects to be carried out by the S.M.E. Company would be the equivalent of $9 million, with a term of 20 years, including three years of grace. It has further been assumed that the Cassa would relend the funds to S.M.E. for the same length of time at an interest rate of 5½%. On these assumptions the annual debt service on the $9 million loan to be paid by S.M.E. to the Cassa would amount to the equivalent of about $821,000 or about Lire 513 million. Debt service on the Cassa loan and all other debts would be covered by receipts from operations from 2.5 to 3 times.

SOCIETA GENERALE PUGLIESE DI ELETTRICITA (PUGLIESE)

THE COMPANY

236. The Societa Generale Pugliese di Elettricita (Pugliese) was incorporated in 1912 with initial share capital of L. 30,000. The share capital has subsequently been increased several times and at the end of 1954 amounted to L. 5,075 million. Control of the Company was obtained in 1930 by S.M.E. which now holds 78% of the shares. Pugliese has gradually acquired the properties of a number of local power distributing companies which operated in the region. Pugliese serves an area of about 14,000 square kilometers on the Adriatic coast of Southern Italy, with a population of about 2.9 million (See Annex 17).

237. Its operating facilities form a part of the power system of the S.M.E. group already described in this report. The present generating facilities consist of a single hydro power plant with an installed capacity of 11,000 kw Power is distributed by means of 528 kilometers of high tension and 5,200 kilometers of secondary and low tension lines. Total substation transformer capacity amounts to 660,000 kva. The company's total power requirements in 1954 amounted to 543 million kwh, of which 90% was generated by S.M.E. and purchased by the Company. Losses on the Company's system have been fairly steady since the war at about 18% of the total power available in the system.

238. The 1954 balance sheet of the company shows total assets of L.14.4 billion ($23 million). These were mainly represented by net fixed assets of L. 10.5 billion ($16.8 million).1/ Successive revaluations of the Company's assets have taken place during the post war years to compensate for the decrease in the value of the Lire. The total net write-up of the assets has amounted to some L. 8.3 billion ($13.3 million). About L. 3.9 billion ($6.2 million) of the capital surplus thus created was used to increase the Company's share capital by the issue of bonus shares. After some transfers to other accounts, there remained L. 3.97 billion ($6.5 million) as the balance in the revaluation reserve as of December 31, 1954. Further issues of bonus shares are contemplated in the future to capitalize the revaluation reserve. (See Annex 32).

239. The long-term debt amounted to only L. 584 million ($ .9 million). The debt/equity ratio was about 6/94. The long-term debts of the Company were mainly represented by two bond issues totalling L. 500 million, dating from 1948 and 1949, which are due in 1958 and 1959 respectively. The balance of the debts was due to the parent company (S.M.E.) and represented part of long-term loans raised by the latter and re-loaned to its subsidiary. The debts due to S.M.E. are secured by a mortgage on certain properties of the Company. The bond issues are unsecured. The balance sheet shows a favorable liquidity position.

1/ After deducting a depreciation reserve of L. 10.4 billion ($16.6 million).

240. The Company's earnings record for the past 20 years shows a net profit for each year in this period, with the exception of the last two war years, when most of the Company's plant was badly damaged. During the period 1936 to 1942, an annual dividend from 6% to 7% was paid. No dividends were paid from 1943 to 1946. In 1947, the Company resumed the payment of dividends, which have amounted to 8% annually, with the exception of 1947, when 9% was paid. (See Annex 33).

MANAGEMENT

241. The management of the Company is closely associated with the management of the parent company. The General Manager and his two principal assistants, in charge of administration and technical services respectively, are able and well experienced in the operation of a power utility company. In these circumstances the caliber of the management is of the same good quality as S.M.E.

POWER MARKET

242. Total sales by Pugliese in 1954 amounted to 449 million kwh, which represents about 19% of total sales of the S.M.E. group. The peak load was 123,000 kw. Industrial consumption accounted for 66% of total sales. Major industrial activity in the area includes shipyards, cement mills, a steel tube plant, a papermill and various small manufacturing enterprises. (See Annex 34).

243. Market forecasts indicate an increase in sales to 1.44 billion kwh by 1964 which is equivalent to an average annual increase of 13%. The corresponding annual increase in peak load is 14%. Proportion of sales by major categories is not expected to change appreciably. These estimates are realistic.

244. The Company's estimated future requirements of power have been included in the forecasts of total sales for the S.M.E. group, as covered in the previous sections of this report.

INVESTMENT PROGRAM

245. As part of the overall investment program planned by the S.M.E. group in the period 1955-57, Pugliese will construct a 120,000 kw thermal plant, a 4,000 kw hydro plant, about 280 kilometers of transmission lines and about 200,000 kva of substations with the necessary expansion of the distribution network. The cost is estimated as follows:

	1955-57 Million Lire
Generating Plants	12,600
Transmission Lines and Substations	5,000
Distribution	4,500
Total	22,100

246. In the second part of the program planned to be carried out in the years 1958-60, Pugliese plans to construct about 150 kilometers of transmission lines, add 200,000 kva of substation capacity and carry out further expansion of the distribution network. The cost is estimated as follows:

	1958-60 Million Lire
Transmission Lines and Substations	4,100
Distribution	7,600
Total	11,700

247. This program fits well into the program of the group and is required to meet anticipated requirements of the system.

PROJECTS PROPOSED FOR BANK FINANCING

248. Within the Pugliese program the two following projects to be completed during the period 1955-57 have been proposed as a basis for a loan of about $12 million equivalent from the Cassa out of Bank funds.

A. COSCILE HYDRO POWER PLANT

Description

249. The plant to be constructed will be located on the Coscile River downstream of the existing Coscile plant. It is not possible to construct a storage reservoir on the Coscile river for the seasonal regulation of the flow, and the new plant will, therefore, be of the run of river type. Water will be diverted from the river by construction of a low concrete barrage. An intake structure will form part of the barrage and will be connected to a 2,350 meter long, concrete lined pressure tunnel leading to a surge tank from which a 115 meter long pressure tunnel and a 225 meter long steel penstock will lead to the powerhouse.

250. The plant will be equipped with a Francis type turbine, which will operate under a head of 55.5 meters, connected to a generator rated at 4,000 kw. Included is also an outdoor substation equipped with a 3-phase 5,750 kva transformer. The plant will be connected to a 150 kv transmission line already constructed as part of the S.M.E. system.

251. Flow records for the Coscile river are available for the last 26 years. These records indicate that the average annual flow will be 4.7 cubic meters per second. This flow corresponds to an average annual production of 16.8 million kwh based on a plant load factor of 0.50. In a dry year, the production could drop to about 12 million kwh.

252. The design and engineering of the plant have been carried out by the engineering staff of S.M.E. and are sound. Construction will be carried out by contractors under the supervision of S.M.E. engineers.

Present Status of Engineering and Schedule of Construction

253. Detailed plans and specifications have been prepared. Bids have been received for major pieces of equipment, and orders will be placed shortly. Preliminary field work has been started. Actual construction work is estimated to require about two and a half years, with the completion scheduled for December 1957. This schedule is realistic.

Estimated Cost

254. The total estimated cost of the construction of the plant amounts to L. 1.1 billion ($1.76 million). A breakdown showing the estimated cost of principal items is given in Annex 35.

255. The estimates are based on present wages and prices, and on firm bids for major pieces of equipment. They include reasonable allowances for engineering, supervision, overhead, interest during construction and contingencies. The estimates are realistic.

256. The cost per installed kw is equivalent to $440, which is relatively high, because of the small size of the plant.

Schedule of Expenditures

257.

	In Millions of Lire			
Year	1955	1956	1957	Total
Expenditures	100	400	600	1,100

B. BARI THERMAL POWER PLANT

Description

258. The plant will be equipped with two turbo-generating units, each with a rated capacity of 60,000 kw. The turbines will be of the condensing type, with a reheat cycle, and will be designed to operate at a temperature of 1000° F. and a pressure of 2,300 pounds per square inch. Two forced circulation type boilers will be installed. Each will be designed to produce 530,000 pounds of primary steam per hour, and to be fired by refinery residues, fuel oil or pulverized coal. Two cooling towers will be provided for the plant. Auxiliary equipment will be of conventional design and will include condensers, feed water treatment plant, fuel oil pumps and fuel tanks, switchgear and control equipment. Two 95,000 kva 3-phase transformers will be installed in the substation and connected to the existing 150 kv transmission system of the S.M.E. group.

259. Fuel oil will be obtained in sufficient quantity by means of a pipe line from the Stanic oil refinery located close to the plant site. Feed water will be obtained from the municipal mains.

260. The design and engineering of the plant were carried out by the engineering staff of S.M.E. and are based on proposals made by European and U. S. manufacturers of thermal generating equipment. The plans are sound.

Present Status of Engineering and Schedule of Construction

261. Preliminary bids have been received from European and U. S. manufacturers on major pieces of equipment. Construction work will start in July 1955 and is scheduled to be completed by the beginning of 1958, based on the delivery times quoted by the manufacturers. The schedule is realistic.

Estimated Cost

262. The total estimated cost of the plant amounts to L. 11.5 billion, equivalent to $18.4 million. A breakdown showing the cost of principal items is given in Annex 36. The estimate is based on the preliminary bids received, and present wages and prices. Reasonable allowances have been included for engineering, supervision, overhead, interest during construction and contingencies. The estimate is considered to be realistic.

263. The cost per installed kw amounts to the equivalent of $154, which is below average for thermal installations of this type.

Schedule of Expenditures

264. The schedule of expenditures is estimated as follows (in millions of Lire):

Year	1955	1956	1957	Total
Expenditures	2000	3000	6500	11,500

METHOD OF FINANCING

265. The Company's expansion program for the three year period 1955/57 involves expenditures estimated at Lire 22.1 billion ($35 million). This figure includes L. 12.6 billion ($20.2 million) for the two projects selected for Bank financing. The remainder of L. 9.5 billion ($15.2 million) would be required to complete the other projects of the Company's program to the end of 1957.

266. It is proposed that 60% of the estimated costs of the three Bank projects selected, or L. 7.5 billion, which is equivalent to $12 million, be financed out of the proceeds of the proposed Bank loan to the Cassa. The balance of the capital requirements during the three year period, estimated

at L. 14.6 billion ($23.3 million) would be financed as follows:

	Billions of Lire
Sale of capital stock	3.4 1/
Borrowing (long and medium term)	8.6 2/
Own resources (depreciation funds)	2.6
	14.6

This financing plan is a part of the consolidated financing plan for the S.M.E. group shown in paragraph 228 above.

FINANCIAL FORECASTS

267. The estimated financial position of the Company at the end of the three year period 1955/57, after carrying out the financing plan covered above, is given in the pro-forma balance sheet in Annex 37. The net book value of the fixed assets by that time is estimated to amount to approximately L. 30.6 billion ($49 million), after deducting a reserve for depreciation of L. 14 billion ($22.4 million). Share capital and reserves, including the capital surplus remaining from the revaluation of assets already discussed in this report, would amount to Lire 12.7 billion ($20.3 million). Total long and medium term indebtedness is estimated to amount to L. 17.2 billion ($27.5 million). The debt/equity ratio on the basis of the figures in the pro-forma balance sheet at the end of 1957 would be 56/44. The capitalization at the end of 1957, as compared with the position at present, is shown in the following table:

Capital Structure

	1954 (Actual)	1957 (Forecast)	increase (+) decrease (-)
	(in billions of Lire)		
Share capital	5.08	10.22	+ 5.14
Reserves	.21	.21	
Revaluation surplus	3.97	2.24	- 1.73
Equity	9.26	12.67	+ 3.41
Long term debts	.58	17.18	+ 16.60
Total	9.84	29.85	+ 20.01

1/ Of which already subscribed L. .4 billion.
2/ Net proceeds of total borrowing of about L. 9.6 billion; the difference represents discounts.

268. The increase of L. 5.14 billion in share capital during the period 1955/57 is expected to come from sales of capital stock of L. 3.4 billion and a capitalization of L. 1.73 billion of the Revaluation Reserve through the issuance of bonus shares.

Future Earnings

269. A forecast of future earnings for the five year period 1955/59 is given in Annex 38. The estimates for gross revenues are based on the assumption that certain rate increases, as discussed in paragraphs 305-317 below, will be obtained. After providing for adequate depreciation and interest charges on all debt, moderate net earnings would remain, which would be sufficient for the payment of an annual dividend of about 8% on the share capital.

Forecast of Cash Flow

270. A forecast of receipts and expenditures for the period 1955/59 is given in Annex 39. In this forecast, no cash accruals are shown since it is assumed that total receipts will equal total expenditures after payment of an 8% dividend. As in the case of S.M.E., new financing is adjusted to this basis.

Debt Service

271. It has been assumed that the Cassa would lend Pugliese $12 million equivalent out of Bank funds for 20 years, including three years of grace at an interest rate of 5-1/2%. On these assumptions, the annual debt service would amount to about $1,098,000, equivalent to L. 684 millions. Debt service on the Cassa loan and all other debts would be covered by cash generation on the average about 2.2 times.

UNIONE ESERCIZI ELETTRICI (UNES)

THE COMPANY

272. UNES was founded in 1905 as a private company and its operations were gradually expanded until the economic depression of 1931. IRI took control of the company at that time, but sold its holdings to SME in 1937. The facilities of the company were badly damaged during the war, but were fully reconstructed by 1947. In 1950 a substantial expansion program was started and the company is gradually being transformed from a distribution company into an integrated utility. The company operates in the East Central section of Italy (see Annex 17). Only half of its operations are within the Cassa area. It serves about 4 million people.

273. In 1954 the company had 103,000 kw installed, all in hydro plants. Its transmission facilities consist of 1,150 km of high tension lines which are interconnected into the Italian grid. It has 36 substations with a total capacity of 480,000 kva. Low tension lines and distribution facilities form the most important part of the company's investment, since the company depends upon purchased power for a high percentage of its supply (49%), which is obtained through agreements with SME and Terni. In the immediate post-war period losses were running at the high rate of about 34% of the total power available in the system. Since then they have been progressively reduced, and had fallen to about 20% in 1954. The facilities of the company are well maintained according to sound utility practice.

274. At the end of 1954, the balance sheet of the company showed total assets of Lire 48.1 billion ($78 million). These were mainly represented by fixed assets which, after deducting the reserve for depreciation of Lire 18 billion ($29 million), amounted to Lire 35.5 billion ($57 million). Long-term debt amounted to Lire 6.4 billion, giving a debt equity ratio of 18/82. (see Annex 40).

275. Successive revaluations of the company's assets have taken place during the post war years according to law which have resulted in a net write-up of assets of about Lire 26 billion ($41.5 million), of which about Lire 9.8 billion ($15.6 million) has been used to increase the company's share capital. The remainder is carried in a revaluation reserve.

276. The company's share capital of Lire 14 billion was held by about 10,000 shareholders, but the majority (59%) was held by SME.

277. About 95% of the long-term debt was represented by borrowings from ICIPU. In 1955 the company obtained an additional loan from ICIPU amounting to Lire 3.5 billion ($5.6 million). These loans generally have 20-year terms with interest ranging from 6.5 to 8%. They are secured by mortgages on existing properties of the company. The company has recently obtained a 5-year Bank loan of Lire 1 billion ($1.6 million) which is unsecured.

278. The company has no net working capital and is operating on Bank credits. Its normal overdraft facilities amount to about Lire 1.5 billion ($2.4 million). Due to heavy construction requirements, however, this limit has recently been raised to Lire 5 billion ($8 million).

279. The company's earnings' record for the past 20 years shows net profits in each year with the exception of the last two war years. During the post-war period, the company has been paying a dividend of 8%. During this period, interest charges on all debts have been covered about five times by net income. Condensed income statements for the past three years are shown in Annex 41.

280. Although the company is controlled by SME, it is organized on an independent basis with a Board of Directors which includes the general managers of Finelettrica and IRI and two representatives of SME. The total personnel amounts to about 1,500. The management and staff have a long and successful experience in power operations. The organization and management of the company are good.

THE POWER MARKET

281. The maximum load on the UNES system has increased gradually from 97,000 kw in 1946 to 151,000 kw in 1954, an average annual increase of about 8.5%. Sales of energy have increased from 215 million kwh in 1946 to 536 million kwh in 1954, an average annual increase of about 12%. During this same period, generation by the company has increased from 80 million kwh to 355 million kwh. The load factor on the system is about .5 . Industrial consumption represents about 61% of total sales. (See Annexes 42 and 43.)

282. Market projections indicate increased sales of from 536 million kwh in 1954 to 1,012 million kwh in 1964, giving an average annual increase of 6.3%. This estimate is considered to be conservative. The peak load is expected to increase from 151,000 kw to 279,000 kw in the same period equivalent to an annual increase of 6%. The amount of power purchased is expected to decrease due to the increased needs of the companies supplying energy and to transmission limitations. The proportion of purchased energy is expected to decrease from about 49% in 1954 to 19% in 1964. Projections of load and energy requirements are given in Annexes 45 and 46.

INVESTMENT PROGRAM

283 The investment program of UNES has been formulated for the period 1955-60. Like the program of the SME Group, this program can be divided into two parts. The first part includes projects to be executed during the period 1955-57 and which could form the basis for a Bank Loan. This part will add about 74,000 kw of hydro generating capacity, about 184 km of new transmission lines and about 13,000 kva of substation capacity to the system together with the necessary expansion of distribution facilities.

284. The estimated cost of this part of the program (including a margin of 20% for interest during construction and contingencies) is as follows:

	1955-57 Million Lire
Generating Plants	10,380
Transmission Lines and Substations	1,850
Distribution	3,000
Total	15,230

285. The second part of the investment program, to be carried out in 1956-60 will probably include additions of 38,000 kw of hydro and 100,000 kw of thermal capacity along with about 66 km of transmission lines and 4,000 kva of substation capacity and necessary extension of the distribution system. The estimated cost of the second part is as follows:

	1956-60 Million Lire
Generating Plants	21,650
Transmission Lines and Substations	490
Distribution	3,000
Total	25,140

286. For details of these programs see Annex 44. When related to estimated loads and production requirements, the proposed investment program is barely sufficient to provide facilities to cover the increase in peak load and production will be about equal to the requirements in a dry year. The program appears to be fully justified on the basis of need.

PROJECTS PROPOSED FOR BANK FINANCING

A. CAPODIPONTE TRONTO PROJECT

287. This project and the Ascoli project described below will utilize the regulated flow of the Tronto river provided by a large existing upstream reservoir having a capacity of 12 million M^3.

288. It consists of a concrete diversion dam 25 meters high which will create a reservoir for daily regulation having a capacity of 300,000 M^3. Water will be conducted from this reservoir through a concrete lined pressure tunnel about 6,000 meters in length connecting through a surge tank to a 220 meter penstock.

289. Generating capacity will consist of two units of 7,400 kw and 3,600 kw operating under a head of 98.5 meters. The average annual water flow is 7.2 m^3/sec., corresponding to an annual generation of 35 million kwh at a load factor of about .35 . The works are nearly completed and both units will be in operation by the end of 1955.

290. The total cost of this project (including interest during construction) is estimated to be Lire 2.4 billion ($3.8 million). (See Annex 47). On this basis the installed cost per kw amounts to the equivalent of $328, which is reasonable for an installation of this type. The estimates on this project can be considered as firm due to its advanced stage of construction. Adequate allowances have been included to cover engineering supervision and contingencies. Of the total cost of Lire 2.4 billion, about Lire 1.8 billion had been spent prior to January 1, 1955. The balance of Lire 600 million will be spent entirely in 1955.

B. CAPODIPONTE CASTELLANO PROJECT

291. This project consists of an 80 meter high dam which will create a reservoir of 12 million M^3 on the Castellano River, a tributary of the Tronto. A temporary barrage 20 meters high is being built to provide some storage before the main dam is completed. The reservoir will connect through intake works to a tunnel approximately 3,000 meters long leading to a surge tank and a penstock.

292. The power installation will consist of one unit of 14,000 kw operating under a head of 300 meters. This unit will be installed in the Capodiponte Tronto powerhouse. The average annual water flow is 2.7 m^3/sec., corresponding to an annual generation of 30 million kwh at a load factor of about 0.25. The project is scheduled to be finished in 1957.

293. The estimated cost of this project is Lire 4 billion ($6.4 million) of which the dam represents the major part. (See Annex 48). Since the storage will serve also for the regulation of the Ascoli project, described below, the cost can be considered as divisible between the two projects. The above estimates include adequate allowances for engineering, supervision, interest during construction and contingencies and are considered to be realistic.

294. The schedule of expenditures on this project is as follows:

	Pre-1955	1955	1956	1957	Total
		(in million lire)			
Capodiponte Castellano	200	1,800	1,400	600	4,000

C. ASCOLI PROJECT

295. This project consists of a barrage 9 meters high built across the Tronto which will divert water into a tunnel 5.5 km in length. This tunnel will discharge into a regulating basin from which a 56 meter long vertical pressure shaft will take water to two units of 7,200 kw each and a third unit of 3,300 kw, all operating under a head of 77 meters. The average annual water flow is 12.5 m^3/sec., corresponding to an annual generation of 60 million kwh at a load factor of about 0.25. The project is scheduled for completion at the end of 1956.

296. The estimated cost is Lire 3 billion ($4.8 million). (See Annex 49). This estimate contains adequate allowances for contingencies, supervision, interest during construction and engineering. When considered with the Capodiponte Castellano project, the cost per kw amounts to $340, which is reasonable.

297. The schedule of expenditures on this project is as follows:

	Pre-1955	1955	1956	Total
		(in million lire)		
Ascoli	300	1,700	1,000	3,000

298. The design and supervision of the above three projects are being carried out by the engineering staff of UNES. Construction work is being done by Italian contractors. The quality of the work is good.

METHOD OF FINANCING

299. Total capital expenditures during the three year period 1955-57 are estimated at Lire 25.9 billion ($41.4 million). Of this amount Lire 7.1 billion ($11.4 million) is estimated to be required to complete the three projects selected for Bank financing. It is proposed that 80% of this amount or Lire 5.6 billion ($9 million) will be financed out of the proceeds of the proposed Bank loan to the Cassa. This would represent 60% of the total estimated cost of the projects. The company plans to obtain the balance of its financial requirements, estimated at Lire 20.3 billion ($32.5 million), from the following sources:

	Billions of Lire
i) sale of capital stock	6.7
ii) borrowing	7.4
iii) own resources (depreciation funds, retained earnings)	6.2
	20.3

300. In addition to Lire 7.4 billion to be borrowed locally for capital expenditures, the company intends to borrow an additional amount of Lire 2.3 billion on a long-term basis in order to refund its short-term bank debts.

Total local borrowing would therefore amount to about Lire 9.7 billion. Of this amount the company has already raised Lire 4.5 billion. It is not expected that either the borrowing or the sale of share capital will present serious difficulties.

FINANCIAL FORECASTS

301. The pro forma balance sheet at the end of 1957 is given in Annex 50. The net book value of the fixed assets of the company is expected to amount to approximately Lire 48.6 billion ($77.8 million) after deducting a reserve for depreciation of Lire 25.6 billion ($40 million). Share capital and reserves, including the balance of the capital surplus created through the revaluation of assets, is expected to amount to Lire 37.3 billion ($59.7 million). Total long-term indebtedness will amount to about Lire 20.5 billion ($32.8 million) giving a debt equity ratio of about 35/65.

Future Earnings

302. A forecast of future earnings is given in Annex 51. The estimates for gross revenues are based on the assumption that several rate increases would be obtained, as discussed in paragraphs 305-317 below. With these rate increases the company would be able to maintain an annual dividend of 8%.

Forecast of Cash Flow

303. A forecast of receipts and expenditures is given in Annex 52. This forecast assumes an investment program of about Lire 37.7 billion ($60.3 million) during the period 1955-59, of which about Lire 26 billion will be spent during the first three years. After payment of debt service and an annual dividend of 8%, moderate cash accruals will result during the early years which would amount to about Lire 1 billion ($1.6 million) by the end of 1957. Cash accruals would increase to about Lire 1.4 billion ($2.2 million) by the end of 1959.

Debt Service

304. It has been assumed, for the purpose of calculation only, that the Cassa would relend the equivalent of $9 million to UNES on a term of 20 years which would include a three year period of grace with an interest rate of 5½%. On these assumptions, the annual debt service on the Cassa Loan would amount to about $821,000, equivalent to Lire 513 million. Debt service on the Cassa loan and all other debts would be covered by receipts from operations, about 2.5 to 3 times on the average.

POWER PRODUCTION COSTS AND POWER RATES

305. All of the power plants considered in this report will be used for peaking purposes, with the exception of the Bari thermal plant and the Coscile hydro plant to be constructed by Pugliese. It is estimated that these two plants will deliver power to the consumer at a cost of about L. 22 per kwh. The costs of power delivered from the SME and UNES plants are estimated at L. 26 and L. 25 per kwh respectively.

306. The present average production costs of power per kwh delivered to the consumer are: L. 6.61 for SME, L. 15.15 for Pugliese and L. 15.90 for UNES. SME has a low production cost because it sells 70-80% of its power wholesale to subsidiary companies and large industrial consumers.

307. As a result of increasing fixed charges and operating costs, average production costs are bound to increase. In 1958, when the projects considered for Bank financing have been completed, it is estimated that the average costs per kwh will amount to L. 8.56 for SME, L. 16.48 for UNES and L. 17.22 for Pugliese.

308. These average production costs have to be compared with the present average selling prices per kwh, which are L. 7.11 for SME, L. 16.74 for Pugliese and L. 17.80 for UNES.

309. While for UNES the increased production cost will remain below the present average selling prices, the increased cost for SME and Pugliese would exceed present selling prices.

310. The regulation of power rates in Italy is the responsibility of an inter departmental price committee which has the authority to make rate changes without the need for parliamentary action. During the post-war period, a number of general rate increases have been authorized to compensate for the general increase in costs. The rate system is based on the 1936 rate level and increases are authorized by the application of a coefficient by which all 1936 rates may be multiplied. The present coefficient is 24 and has been in effect since 1948. The general price level has increased about 60 times since 1936.

311. Since the permitted rate increases are based on 1936 operating conditions, which have changed to a considerable extent, they bear no consistent relation to the increases in operating expenses of the individual power companies. On the average, companies' earnings are more favorable than the comparison of the increase in rates to the general increase in prices would indicate. The most important reason for this is the relatively larger increases of sales to categories of consumers paying higher rates. In addition more economical operations have been accomplished by a more extensive integration of power systems in different parts of Italy, which makes possible the exchange of surplus power and reduces overall requirements for reserve capacity. Losses in the system have also been reduced by improvements of transmission and distribution facilities.

312. Since 1948 the operating costs of Italian power companies have been steadily increasing, mainly because the fixed costs of new plants are higher than those of old plants. To avoid a further general rate increase, the price committee in 1953 established an equalization fund to make good to the companies part of the higher cost of power produced in plants completed since 1949. The source of this fund is a fairly substantial surcharge payable by industrial consumers. The fund has been running since the middle of 1954 at a deficit, which so far has been covered from the balance of a thermal power equalization fund which was abolished in 1953.

313. As more new plants are coming into production, the equalization fund will continue to show a deficit in 1955, and it is understood in Italy that the present position can only be improved by a new general rate increase. The price committee is expected to authorize such an increase during 1955.

314. In the financial forecasts prepared by the three power companies, they have assumed an increase in the official coefficient from 24 to 32 effective January 1, 1956, and a simultaneous reduction in the contribution from the equalization fund of 75%. Furthermore, the companies have assumed an additional increase in the coefficient to 40 in 1958, together with the abolition of the equalization fund.

315. The companies show that on these assumptions their financial situation would be satisfactory.

316. Unless rate increases of this order of magnitude are granted in the next few years, the financial positions of the three companies, and of all other power companies in Italy, will deteriorate to a point at which they will be unable, either by borrowing or by raising additional equity, to obtain the funds needed to finance the construction programs which they must continue to carry out if the constantly growing demand for electric power is to be met.

317. In the circumstances, consideration has been given to the question whether the Bank should ask the Italian Government for an undertaking with respect to its future policy on electric rates. In view, however, of the fact that in the past (with the exception of the years in which war damage reduced available capacity) rates have always been adequate to enable the companies to earn a reasonable profit, and that there is no reason to suppose that the Government is likely to change its policy, it has been concluded that it is not necessary to obtain such an undertaking. The power companies concerned, with whom the question has been discussed, share this view.

SECURITY AND FINANCIAL ARRANGEMENTS

318. Two problems involving the set-up of the proposed loans were common to all three companies. The first was the need for funding part of the short-term bank indebtedness in order to improve their liquidity position, and the second was the type of security which the Bank or the Cassa should take on the projects. If the properties financed by the Bank loan were to be secured by a mortgage, this would make it difficult for the companies to fund existing short-term debt.

319. In lieu of the usual mortgage arrangements, the companies proposed that the necessary security provisions be satisfied in the form of a suretyship from two of the principal shareholders of the companies, Finelettrica and the Bastogi group. Finelettrica, which is an electric utility holding and financing company, controlled by the Government through IRI, and Bastogi, which is a privately owned investment group (with a net worth of over $65 million equivalent) are both in a very strong financial position.

320. They are willing to guarantee jointly and severally all of the undertakings given to the Bank in the Project Agreements and the obligations of the companies to the Cassa in the Subsidiary Loan Agreements. These obligations include not only the financial covenants of repayment of the loans to the Cassa but the covenants of completion, maintenance and operation of the projects during the life of the loan.

321. In these circumstances, the proposed arrangements are satisfactory.

CONCLUSIONS

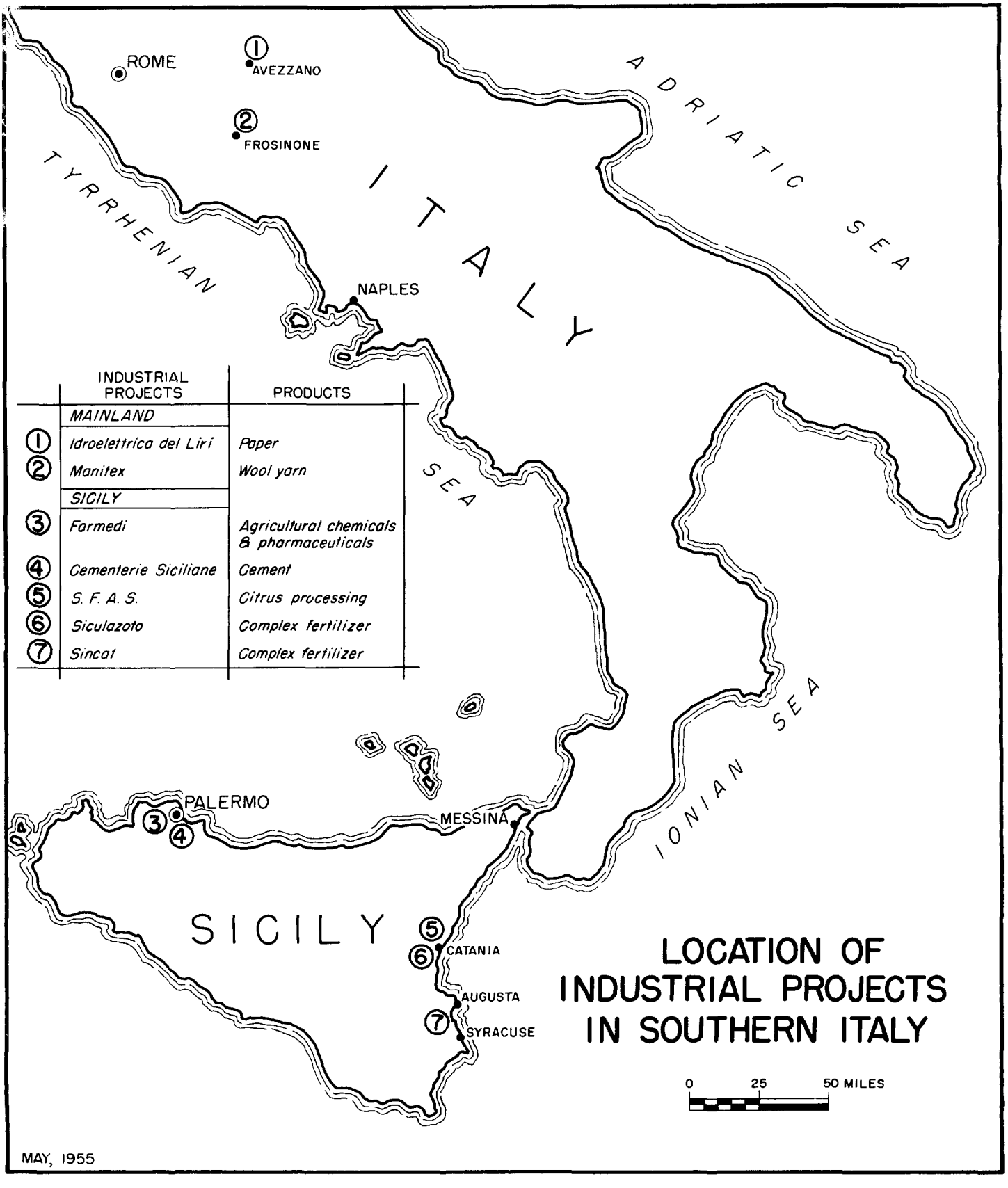
322. The projects which it is proposed to finance by loans from the Cassa to SME, Pugliese and UNES out of Bank funds are sound. Suitable arrangements have been made for their execution and subsequent operation. The estimated costs and the construction schedules are reasonable. The companies are well managed and organized. The debt-equity ratios of the companies are satisfactory. Their liquid positions are characterized by large short-term borrowings. However, their financial plans are designed to correct this situation.

323. Their earnings records are good. Provided that the Government grants reasonable rate increases during the next few years, they should continue to earn enough to maintain reasonable dividends and to service their debt, and should thus be in a position to raise the funds needed for further expansion.

324. Since Finelettrica and the Bastogi group will guarantee the companies' obligations to the Cassa and to the Bank (under the Project Agreements), the proposed projects form a suitable basis for Cassa loans to the three companies in the following amounts:

SME	$ 9 million equivalent
Pugliese	$ 12 million equivalent
UNES	$ 9 million equivalent
TOTAL	$ 30 million equivalent

325. The useful life of the structures and equipment would justify a term of 20 years for these loans; and the construction schedules a grace period of three years.



	INDUSTRIAL PROJECTS	PRODUCTS
	MAINLAND	
①	*Idroelettrica del Liri*	*Paper*
②	*Manitex*	*Wool yarn*
	SICILY	
③	*Farmedi*	*Agricultural chemicals & pharmaceuticals*
④	*Cementerie Siciliane*	*Cement*
⑤	*S. F. A. S.*	*Citrus processing*
⑥	*Siculazoto*	*Complex fertilizer*
⑦	*Sincat*	*Complex fertilizer*

ANNEX 2

CEMENTERIE SICILIANE

Palermo
May the 12th, 1955

International Bank for Reconstruction
and Development
1818 H Street N.W.
Washington 25, D.C., U.S.A.

(1) This will confirm certain understangings which have been reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), and Cementerie Siciliane.

(2) You have informed us that the Bank is considering a loan to the Cassa per Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa) and that part of that loan will be specifically allocated for loans by the Cassa for various industrial undertakings in the area of its competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate at Isola della Femmine near Palermo a cement plant with a capacity of 130,000 tons per year. The pro-forma balance sheet on completion of the project which we have discussed, would be as follows:

Assets		Liabilities	
Net current Assets	200,000,000	Capital	1,500,000,000
Fixed Assets	2,800,000,000	IBRD Loan	1,060,000,000
		Shareholders Advances	440,000,000
lire	3,000,000,000	lire	3,000,000,000

(4) You have said that before you could approve favorable consideration by the Cassa of the proposed loan, you would require certain undertakings from Cementerie Siciliane in respect of the treatment of shareholders' advances and working capital.

(5) The assurances and undertakings which you have requested to be effective while the loan from the Cassa would be outstanding are that:

the undersigned would not without the approval of the Bank and the Cassa pay dividends or make other payments to shareholders, or adopt any policy, which would result in:

(i) the excess of current assets over current liabilities to be less, at any time, than 200,000,000 lire, or

(ii) the ratio of current assets to current liabilities to be less, at any time, than 2:1.

(6) For the purpose of the preceding paragraph we have agreed that "current assets" should be considered as cash and assets readily convertible to cash and all other assets which would, within one year in the ordinary course of the undersigned's business be converted into cash or assets readily convertible into cash; and that "current liabilities" should be considered as liabilities due and payable and all other liabilities which would be payable or could be called for payment within one year.

(7) The undersigned hereby gives you the assurance set forth in paragraph (5) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof the Cassa grants a loan to the undersigned for the construction of said plant in the approximate amount which we have discussed, namely 1,060,000,000 lire.

(8) It is understood that the terms and conditions of any such loan from the Cassa will be set forth in an agreement to be negotiated and entered into between the undersigned and the Cassa and that the substance of the assurances and undertakings given in this letter will be incorporated therein.

Yours truly.

S.p.A. CEMENTERIE SICILIANE

Il Consigliere Delegato

(dr. ing. Carlo Pesenti)

ANNEX 3

CEMENTERIE SICILIANE

Financial Forecasts
(Million Lire)

	Construction Period		Operating Period			
					1959/60	
	1955/56	1956/57	1957/58	1958/59	Normal	Under Unfavorable Conditions 1/
I. Earnings Statement						
Production (% of capacity)			60	90	100	80
Operating costs			748	828	905	696
Interest IBRD debt			64	59	54	54
Depreciation			178	178	178	178
Taxes			16	25	35	12
Total Costs			1,006	1,090	1,172	940
Net sales			1,080	1,214	1,350	918
Net income after taxes			74	124	178	-22
Net income (% of share capital)			4.9	8.3	11.8	-1.4
II. Sources and Application of Funds						
Equity	1,500	595 2/				
IBRD debt	515	545				
Other long-term debt	-	440				
Current liabilities	-	100	120	20	40	-
Depreciation	-	-	178	178	178	178
Net income before IBRD interest	-	-	138	183	232	32
Total Sources	2,015	1,680	436	381	450	210
Fixed assets	1,420	1,380	-	-	-	-
Current assets	595	300	140	55	65	-
IBRD debt service	-	-	143	143	143	143
Retirement shareholders' advances	-	-	59	63	68	68
"Additional assets"	-	-	94	120	174	-1
Total Applications	2,015	1,680	436	381	450	210

	Construction Period		Operating Period			
					1959/60	
	1955/56	1956.57	1957/58	1958/59	Normal	Under Unfavorable Conditions 1/
III. Balance Sheets (as of the end of the period)						
Fixed assets	1,420	2,800	2,800	2,800	2,800	
Minus accumulated depreciation	-	-	178	356	534	
Net fixed assets	1,420	2,800	2,622	2,444	2,266	
Current assets	595	300	440	480	560	
"Additional assets"	-	-	94	229	388	
Total Assets	2,015	3,100	3,156	3,153	3,214	
Equity (share capital and surplus)	1,500	1,500	1,574	1,698	1,876	
IBRD debt	515	1,060	981	897	808	
Shareholders' advances	-	440	381	318	250	
Current liabilities	-	100	220	240	280	
Total Liabilities	2,015	3,100	3,156	3,153	3,214	

1/ Assuming a temporary recession resulting in a 20% cut in sales volume and 15% cut in prices with no reduction in the price level for labor or raw materials.

2/ Balance of equity not spent on construction in previous year.

ANNEX 4

SICULAZOTO

Palermo, May 11th, 1955

International Bank for Reconstruction
and Development
1818 H Street N.W.
Washington 25, D.C., U.S.A.

Gentlemen,

1) this will confirm certain understandings which have been reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), and SICULAZOTO.-

2) You have informed us that the Bank is considering a loan to the Cassa pro Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa) and that part of that loan will be specifically allocated for loans by the Cassa for various industrial undertakings in the area of its competence.-

3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate a fertilizer plant at Catania with daily capacity of 150 tons of compound fertilizers and 10 tons of Flotal. The pro-forma balance sheet on completion of the project which we discussed, would be as follows:

Assets		Liabilities	
Fixed Assets	2,600,000,000	Share Capital	1.500.000.000
Net Current Assets	400,000,000	IBRD Loan	1,500,000,000
	3,000,000,000		3,000,000,000

4) You have said that before you could approve favorable consideration by the Cassa of the proposed loan, you would require certain undertakings from SICULAZOTO in respect of the treatment of shareholders' advance and working capital.-

5) The assurances and undertakings which you have requested to be effective while the loan from the Cassa would be outstanding are that:

(a) valid arrangements be made under which, except as the Bank and Cassa shall otherwise agree:

the ratio of long term debt to share capital should not be more than 1:1.

(b) the undersigned would not without the approval of the Bank and the Cassa pay dividends or make other payments to shareholders, or adopt any policy, which would result in:

(i) the excess of current assets over current liabilities to be less, at any time, than 400,000,000 lire, or

(ii) the ratio of current assets to current liabilities to be less, at any time, than 2:1. -

6) For the purpose of the preceding paragraph we have agreed that "current assets" should be considered as cash and assets readily convertible to cash and all other assets which would, within one year in the ordinary course of the undersigned's business be convertes into cash or assets readily convertible into cash; and that "current liabilities" should be considered as liabilities due and payable and all other liabilities which would be payable or could be called for payment within one year. -

7) The undersigned hereby gives you the assurance set forth in paragraph 5) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof the Cassa grants a loan to the undersigned for the construction of said plant in the approximate amount which we have discussed, namely 1.500.000.000 lire. -

8) It is understood that the terms and conditions of any such loan from the Cassa will be set forth in an agreement to be negotiated and entered into between the undersigned and the Cassa and that the substance of the assurances and undertakings given in this letter will be incorporated therein. -

SICULAZOTO

Societa' per Azioni

L'Amministratore Unico

SICULAZOTO

Financial Forecasts
(Million Lire)

	Construction Years		Operating Years			
					1959/60	
	1955/56	1956/57	1957/58	1958/59	Normal	Under Unfavorable Conditions 1/
I. Earnings Statement						
Production (% of capacity)			100	100	100	80
Operating costs			1,324	1,332	1,332	1,132
Interest IBRD debt			90	83	76	76
Depreciation			260	260	260	260
Taxes			43	41	44	15
Total Costs			1,717	1,716	1,712	1,483
Net Sales			1,932	1,932	1,932	1,414
Net income after taxes			215	216	220	-69
Net income (% of share capital)			14.3	14.4	14.6	-4.6
II. Sources and Application of Funds						
Equity	650	850	-	-	-	-
IBRD funds	650	850	-	-	-	-
Current liabilities	-	200	200	-	-	-
Depreciation	-	-	260	260	260	260
Net income before IBRD interest	-	-	305	299	296	7
Total Sources	1,300	1,900	765	559	556	267
Fixed assets	1,300	1,300	-	-	-	-
Current assets	-	600	200	-	-	-
IBRD debt service	-	-	202	202	202	202
"Additional assets"	-	-	363	357	354	65
Total Application	1,300	1,900	765	559	556	267

	Construction Years		Operating Years		1959/60	
	1955/56	1956/57	1957/58	1958/59	Normal	Under Unfavorable Conditions 1/
III. Balance Sheets (as of the end of the period)						
Fixed assets	1,300	2,600	2,600	2,600	2,600	
Deduct depreciation	-	-	260	520	780	
Net fixed assets	1,300	2,600	2,340	2,080	1,820	
Current assets	-	600	800	800	800	
"Additional assets"	-	-	363	720	1,074	
Total assets	1,300	3,200	3,503	3,600	3,694	
Equity (share capital plus surplus)	650	1,500	1,715	1,930	2,149	
IBRD funds 2/	650	1,500	1,388	1,270	1,145	
Current liabilities	-	200	400	400	400	
Total liabilities	1,300	3,200	3,503	3,600	3,694	

1/ Assuming a fall in output the 80% of full capacity and a reduction in selling prices by 15% with no corresponding reduction in raw material prices or wages.

2/ Includes interest during the grace period.

ANNEX 6

SINCAT

Milano, 12 maggio 1955

International Bank for Reconstruction
and Development
1818 H Street N.W.
Washington 25, D.C., U.S.A.

Gentlemen:

This will confirm certain understandings which have been reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), and SINCAT.

You have informed us that the Bank is considering a loan to the Cassa per opere straordinarie di pubblico interesse nell'Italia Meridionale and that part of that loan will be specifically allocated for loans by the Cassa for various industrial undertakings in the area of its competence.

We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate at Augusta a fertilizer plant with a production capacity of 100,000 tons per year of double and triple compound fertilizers. The pro-forma balance sheet on completion of the project which we have discussed, would be as follows:

ASSETS		LIABILITIES	
Current assets	1,500,000,000	Capital	2,000,000,000
Fixed assets	7,500,000,000	Shareholders' advances	2,600,000,000
		IBRD Loan	3,600,000,000
		Current liabilities	800,000,000
	9,000,000,000		9,000,000,000

You have said that before you could approve favorable consideration by the Cassa of the proposed loan, you would require certain undertakings from SINCAT in respect of the treatment of shareholders' advances and working capital.

The assurances and undertakings which you have requested to be effective while the loan from the Cassa would be outstanding are that:

(a) Valid arrangements be made under which, except as the Bank and Cassa shall otherwise agree:

1. The share capital of the Company shall be at least 2,000,000,000 lire, paid in as required,

2. Shareholders' advances (which, on completion of the Plant, will total at least the difference between 4,600,000,000 lire and paid in share capital) would not be withdrawn,

3. Shareholders' advances would be subordinated to all debts of SINCAT, and

4. Interest or any other remuneration would be payable and paid on shareholders' advances only out of net profits and only to the extent that dividends would be payable thereon if such advances had been converted to share capital.

(b) The undersigned would not without the approval of the Bank and the Cassa pay dividends or make other payments to shareholders, or adopt any policy, which would result in:

1. The excess of current assets over current liabilities to be less, at any time, than 700,000,000 lire, or

2. The ratio of current assets to current liabilities to be less, at any time, than 2:1.

For the purpose of the preceding paragraph we have agreed that "Current Assets" should be considered as cash and assets readily convertible to cash and all other assets which would, within one year in the ordinary course of the undersigned's business be converted into cash or assets readily convertible into cash, and that "Current Liabilities" should be considered as liabilities due and payable and all other liabilities which would be payable or could be called for payment within one year.

The undersigned hereby gives you the assurance set forth in paragraph (5) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof the Cassa grants a loan to the undersigned for the construction of said Plant in the approximate amount which we have discussed, namely 3,600,000,000 lire.

It is understood that the terms and conditions of any such loans from the Cassa will be set forth in an agreement to be negotiated and entered into between the undersigned and the Cassa and that the substance of the assurances and undertakings given in this letter will be incorporated therein.

Yours very truly,

SINCAT
Societa' Industriale Catanese
il Consigliere Delegato

(dott.Ing.Carlo Ciriollo)

ANNEX 7

SINCAT

Financial Forecasts
(Million Lire)

	Construction Period			Operating Period			
						1960/61	
	1955/56	1956/57	1957/58	1958/59	1959/60	Normal	Under Unfavorable Conditions 1/
I. Earnings Statement							
Production (% of capacity)				80	80	80	70
Operating costs				2,442	2,458	2,458	2,228
Interest IBRD debt				216	200	183	183
Depreciation				750	750	750	750
Taxes				36	36	42	15
Total costs				3,444	3,444	3,433	3,176
Net sales				3,800	3,800	3,800	2,826
Net income after taxes				356	356	367	-350
Net income (% of share capital and shareholders' advances)				7.7	7.7	8.0	-7.6
II. Sources and Application of Funds							
Equity	1,000	1,000	-	-	-	-	-
Shareholders' advances	1,300	600	700	-	-	-	-
IBRD debt	1,300	1,200	1,100	-	-	-	-
Current liabilities	-	-	-	750	-	-	-
Depreciation	-	-	-	750	750	750	750
Net income before IBRD interest	-	-	-	572	556	550	-167
Total Sources	3,600	2,800	1,800	2,072	1,306	1,300	583
Fixed assets	3,600	2,800	1,100	-	-	-	-
Current assets	-	-	700	898	32	26	26
IBRD debt service	-	-	-	484	484	484	484
"Additional assets"	-	-	-	690	790	790	73
Total Applications	3,600	2,800	1,800	2,072	1,306	1,300	583

	Construction Period			Operating Period			
						1960/61	
	1955/56	1956/57	1957/58	1958/59	1959/60	Normal	Under Unfavorable Conditions 1/
III. Balance Sheets (as of the end of the period)							
Fixed assets	3,600	6,400	7,500	7,500	7,500	7,500	
Deduct depreciation	-	-	-	750	1,500	2,250	
Net fixed assets	3,600	6,400	7,500	6,750	6,000	5,250	
Current assets	-	-	700	1,598	1,630	1,656	
"Additional assets"	-	-	-	690	1,480	2,270	
Total Assets	3,600	6,400	8,200	9,038	9,110	9,176	
Equity (share capital plus surplus)	1,000	2,000	2,000	2,356	2,712	3,078	
Shareholders' advances	1,300	1,900	2,600	2,600	2,600	2,600	
IBRD funds 2/	1,300	2,500	3,600	3,332	3,048	2,748	
Current liabilities	-	-	-	750	750	750	
Total Liabilities	3,600	6,400	8,200	9,038	9,110	9,176	

1/ Assuming a fall in output to 70% of capacity and a reduction in selling prices by 15% with no corresponding reduction in the price level for raw materials or labor.

2/ Includes interest during the grace period.

S.F.A.S.

Catania, 12 May 1955

International Bank for Reconstruction
and Development
1818 H Street N.W.
Washington 25, D.C., U.S.A.

(I) This will confirm certain understandings which have been reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), and SFAS.

(2) You have informed us that the Bank is considering a loan to the Cassa per Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa) and that part of that loan will be specifically allocated for loans by the Cassa for various industrial undertakings in the aera of its competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate at Catania a plant to process annually about 22,500 metric tons of citrus fruits for orange juice and lemon juice; 3,600 metric tons of tomatoes for juice and paste, and 3,600 metric tons of grapes for juice. The pro-forma balance sheet on completion of the project which we have discussed, would be as follows:

Assets		Liabilities	
Fixed Assets	1,371,000,000	Share Capital	700,000,000
Net Current Assets	900,000,000	IBRD Loan	1,171,000,000
		Current Liabilities	400,000,000
	2,271,000,000		2,271,000,000

(4) We have explained that it would be possible to reduce the estimated cost of the plant without reducing either its efficiency or its productivity, and have inquired what would be the effect of such a cost reduction on the above pro-forma balance sheet.

(5) You have said that before you could approve favorable consideration by the Cassa of the proposed loan, youswould require certain undertakings from SFAS in respect of the treatment of shareholders' advances and working capital.

(6) The assurances and undertakings which you have requested to be effective while the loan from the Cassa would be autstanding are that:

(a) the undersigned would not without the approval of the Bank and the Cassa pay dividends or make other payments to shareholders, or adopt any policy, which would result in:

(i) the excess of current assets over current liabilities to be less, at any time, than 500,000,000 lire, or

(ii) the ratio of current assets to current liabilities to be less, at any time, than 2:1.

(b) The undersigned would not without the approval of the Bank and the Cassa:

(i) effect reductions in the cost of the plant which would adversely affect the production capacity or profitability of the project;

(ii) in future maintain a ratio of long-term debt to share capital plus undistributed profits of more than 1:1;

(iii) permit at any time until 700.000.000 lire of share capital has been paid in, the sum of its applications for withdrawals under the loan to exceed 150% of the share capital so paid in.

(7) For the purpose of the preceding paragraph we have agreed that "current assets" should be considered as cash and assets readily convertible to cash and all other assets which would, within one year in the ordinary course of the undersigned's business be converted into cash or assets readily convertible into cash; and that "current liabilities" should be considered as liabilities due and payable and all other liabilities which would be payable or could be called for payment within one year.

(8) The undersigned hereby gives you the assurance set forth in paragraph (6) above to be effective on the condition that you make a loan to the Cassa and that the proceeds thereof the Cassa grants a loan to the undersigned for the construction of said plant in the approximate amount which we have discussed, namely 1,171,000,000 lire.

(9) It is understood that the terms and conditions of any such loan from the Cassa will be set forth in an agreement to be negotiated and entered into between the undersigned and the Cassa and that the substance of the assurances and undertakings given in this letter will be incorporated therein.

SUCCHI FRUTTA AGRUMI SICILIANI S.p.A.
IL PRESIDENTE
(Dr.Giuseppe Vincenzo Paterno Castello Principe di Biscari)

IL CONSIGLIERE DELEGATO
(Dott.Placido Spadaro)

SUCCHI FRUTTA AGRUMI

Financial Forecasts
(Million Lire)

	Construction Period 1955/56	1956/57	1957/58	1958/59	1959/60
I. Earnings Statement					
Production (% of capacity)		75	100	100	100
Operating costs		1,460	1,717	1,717	1,717
Interest		70	63	56	48
Depreciation		135	135	135	135
Taxes		9	57	68	70
Total Costs		1,674	1,972	1,976	1,970
Net Sales		1,711	2,284	2,284	2,284
Net income after taxes		37	312	308	314
Net income (% of share capital)		5.3	44.5	44.0	45.0
II. Sources and Application of Funds					
Net income	-	37	312	308	314
Depreciation	-	135	135	135	135
Paid in equity	700	-	-	-	-
IBRD loan	1,171	-	-	-	-
Short-term loans	400	-	-	-	-
Total Sources	2,271	172	447	443	449
Fixed assets	1,371	-	-	-	-
Current assets	900	-	-	-	-
Debt repayment	-	116	123	130	138
"Additional assets"	-	56	324	313	311
Total Applications	2,271	172	447	443	449
Debt service coverage	-	1.3	2.7	2.7	2.7
III. Balance Sheets (as of the end of the period)					
Fixed assets	1,371	1,371	1,371	1,371	1,371
Less depreciation	-	135	270	405	540
	1,371	1,236	1,101	966	831
Current assets	900	900	900	900	900
"Additional assets"	-	56	380	693	1,004
Total Assets	2,271	2,192	2,381	2,559	2,735
Capital	700	700	700	700	700
Surplus	-	37	349	657	971
IBRD loan	1,171	1,055	932	802	664
Current liabilities	400	400	400	400	400
Total Liabilities	2,271	2,192	2,381	2,559	2,735

ANNEX 10

SIL

Roma, li May 13rd 1955

International Bank for Reconstruction
and Development
1818 H Street, N.W.
Washington 25, D.C., U.S.A.

(1) This will confirm certain understandings which have been reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), and SIL.

(2) You have informed us that the Bank is considering a loan to the Cassa per Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa) and that part of that loan will be specifically allocated for loans by the Cassa for various industrial undertakings in the area of its competence.

(3) We have proposed that there should be financed out of the the proceeds of the loan our project to construct and operate near Avezzano a paper mill to produce about 25,000 tons of paper per year, integrated with a groundwood mill to produce 12,000 tons of wood pulp per year, and a straw pulp mill producing 6,000 tons of bleached sulphite pulp. There would be an electrolysis plant for the production of caustic soda and chlorine. The existing power plant of the Company would provide about 3/4 of the power needs of the plant. The pro forma balance sheet on completion of the project which we have discussed, would be as follows:

Assets		Liabilities	
Power Plant	437,000,000	Capital	1,050,000,000
Paper Mill	3,813,000,000	Shareholders' Advances	1,100,000,000
Net Current Assets. . .	500,000,000	IBRD Loan	2,600,000,000
	4,750,000,000		4,750,000,000

(4) You have said that before you could approve favorable consideration by the Cassa of the proposed loan, you woule require certain undertakings from SIL in respect of the treatment of shareholders' advances and working capital.

(5) The assurances and undertakings which you have requested to be effective while the loan from the Cassa would be outstanding are that:

(I) the share capital of the Company shall be at least 1,050,000,000 lire, paid in as required;

(II) shareholders' advances (which, on completion of the plant, will total at least the difference between 2,150,000,000 lire and paid in share capital) would not be withdrawn;

(III) shareholders' advances would be subordinated to all debts of SIL;

(IV) interest or any other remuneration would be payable and paid on shareholders' advances only out of net profits and only to the extent that dividends would be payable thereon if such advances had been converted to share capital; and

(V) any further long term borrowing shall be undertaken only concommitantly with an increase in share capital in a ratio of 1:1.

(b) the undersigned would not without the approval of the Bank and the Cassa pay dividends or make other payments to shareholders', or adopt any policy, which would **resault in:**

(I) any payment of dividends before, or out of earnings accrued before, the completion of the paper mill.

(II) the excess of current assets over current liabilities to be less, at any time, than 500,000,000 lire: or

(III) the ratio of current assets to current liabilities to be less than 2:1.

(6) For the purpose of the preceding paragraph we have agreed that "current assets" should be considered as cash and assets readily convertible to cash and all other assets which would, within one year in the ordinary course of the undersigned's business be converted into cash or assets readily convertible into cash; and that "current liabilities" should be considered as liabilities due and payable and all other liabilities which would be payable or could be called for payment within one year.

(7) The undersigned hereby gives you the assurance set forth in paragraph (5) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof the Cassa grants a loan to the undersigned for the construction of said mill in the approximate amount which we have discussed, namely 2,600,000,000 lire.

(8) It is understood that the terms and conditions of any such loan from the Cassa will be set forth in an agreement to be negotiated and entered into between the undersigned and the Cassa and that the substance of the assurances and undertakings given in this letter will be incorporated therein.

SOCIETA' IDROELETTRICA LIRI S.p.A.

L'Amministratore Delegato

SOCIETA IDROELETTRICA LIRI

Financial Forecasts

(million Lire)

	1954/55	Construction Period 1955/56	1956/57	1957/58	Operating Period 1958/59	1959/60	1960/61
I. Earnings Statement							
Production (% of capacity)					60	90	100
Operating costs					1,519	2,203	2,431
Interest IBRD debt					156	147	137
Depreciation					350	350	350
Taxes					9	55	73
Total Costs					2,034	2,755	2,991
Net Sales					2,034	3,051	3,390
Net income after taxes					-	296	399
Net income (% of share capital and shareholders' advances)					0.0	13.7	18.5
II. Sources and Application of Funds							
Equity		102.5	-	-	-	-	-
Shareholders' advances		299.5 1/	320.0 1/	320.5 1/	-	-	-
IBRD debt		870.0	815.0	915.0	-	-	-
Current liabilities		- 36.7	-	-	185	288	64
Depreciation		36.0	35.0	35.0	350	350	350
Net income before IBRD interest		80.0 1/	80.0 1/	80.0 1/	156	443	536
Total Sources		1,351.3	1,250.0	1,350.5	691	1,081	950
Fixed assets		1,351.3	1,250.0	1,200.0	-	-	-
Current assets		-	-	150.5	185	288	101
IBRD debt service		-	-	-	307	307	307
"Additional assets"		-	-	-	199	486	542
Total Applications		1,351.3	1,250.0	1,350.5	691	1,081	950

III. Balance Sheets (as of end of period)	1954/55	Construction Period 1955/56	1956/57	1957/58	Operating Period 1958/59	1959/60	1960/61
Fixed assets	742.7	2,094.0	3,344.0	4,544.0	4,544.0	4,544.0	4,544.0
Deduct accumulated depreciation	188.0	224.0	259.0	294.0	644.0	994.0	1,344.0
Net fixed assets	554.7	1,870.0	3,085.0	4,250.0	3,900.0	3,550.0	3,200.0
Current assets	349.5	349.5	349.5	500.0	685.0	973.0	1,074.0
"Additional assets"	-	-	-	-	199.0	685.0	1,227.0
Total Assets	904.2	2,219.5	3,434.5	4,750.0	4,784.0	5,208.0	5,501.0
Equity (share capital plus surplus)	867.5	1,050.0	1,050.0	1,050.0	1,050.0	1,346.0	1,745.0
Shareholders' advances	-	299.5	699.5	1,100.0	1,100.0	1,100.0	1,100.0
IBRD debt	-	870.0	1,685.0	2,600.0	2,449.0	2,289.0	2,119.0
Current liabilities	36.7	-	-	-	185.0	473.0	537.0
	904.2	2,219.5	3,434.5	4,750.0	4,784.0	5,208.0	5,501.0

1/ According to the draft loan agreement, the company would regard earnings from the power station used in the construction of the paper mill as shareholders' advances rather than as accumulated surplus.

ANNEX 12

FARMEDI

May-12-1955

International Bank for Reconstruction
and Development
1818 H Street, N.W.
Washington 25, D.C., U.S.A.

(1) This will confirm certain understandings which have been reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), and FARMEDI.

(2) You have informed us that the Bank is considering a loan to the Cassa per Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa) and that part of that loan will be specifically allocated for loans by the Cassa for various industrial undertakings in the area of its competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate at Palermo a plant to produce a wide range of pharmaceutical products, antibiotics, supplementary feeds, anti-parasiticides, disinfectants and essences. The pro-forma balance sheet on completion of the project which we have discussed, would be as follows :

Assets		Liabilities	
Current Assets	640,000,000	Current Liabilities .	110,000,000
Fixed Assets	1370,000,000	IBRD Loan	1000,000,000
		Capital	900,000,000
	2010,000,000		2010,000,000

(4) You have said that before you could approve favorable consideration by the Cassa of the proposed loan, you would require certain undertakings from FARMEDI in respect of the treatment of shareholders' advances and working capitale.

(5) The assurances and undertakings which you have requested to be effective while the loan from the Cassa would be outstanding are that:

a) valid arrangements be made under which, except as the Bank and Cassa shall otherwise agree :

the share capital of the Company shall be at least 900,000,000 lire, paid in as required;

b) the undersigned would not without the approval of the Bank and the Cassa pay dividends or make other paylents to shareholders, or adopt any policy, which would result in :

(i) the excess of current assets over current liabilities to be less, at any time, than 400,000,000 lire, or

(ii) the ratio of current assets to current liabilities to be less, at any time, than 2:1.

(6) For the purpose of the preceding paragraph we have agreed that "current assets" should be considered as cash and assets readily convertible to cash and all other assets which would, within one year in the ordinary course of the undersigned's business be converted into cash or assets readily convertible into cash; and that "current liabilities" should be considered as liabilities due and payable and all other liabilities which would be payable or could be called for payment within one year.

(7) The undersigned hereby gives you the assurance set forth in paragraph (5) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof the Cassa grants a loan to the undersigned for the construction of said plant in the approximate amount which we have discussed, namely 1.000.000.000 lire.

(8) It is understood that the terms and conditions of any such loan from the Cassa will be set forth in an agreement to be negotiated and entered into between the undersigned and the Cassa and that the substance of the assurances and undertakings given in this letter will be incorporated therein.

We remain with kind regards yours sincerely

FARMEDI
Istituto Farmacoterapico del Mediterraneo
S.p.A.

Il Presidente

ISTITUTO FARMACOTERAPICO DEL MEDITERANEO (FARMEDI)

FINANCIAL FORECASTS
(million Lire)

	Construction		Partial Production			Full Production
	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
I. Earnings Statement						
Operating costs	-	-	654	1,078	1,403	1,729
Depreciation (8%)	-	-	40	107	107	107
Interest IBRD Loan	-	-	-	60	54	48
Taxes	-	-	11	10	13	16
Total			705	1,255	1,577	1,900
Net Sales			750	1,300	1,630	1,967
Net Income			45	45	53	67
Net Income (% of Share Capital)			5.0%	5.0%	5.9%	7.5%
II. Source and Application of Funds						
Net Income	-	-	45	45	53	67
Depreciation	-	-	40	107	107	107
Equity	200	200	300	200	-	-
IBRD Loan	100	500	400	-	-	-
Short term debt	-	-	110	-	-	-
Total Sources	300	700	895	352	160	174
Fixed assets	182	598	590	-	-	-
Current assets	118	102	305	115	-	-
Repayment IBRD Loan	-	-	-	99	105	111
"Additional Assets"	-	-	-	138	55	63
Total applications	300	700	895	352	160	174
Debt Service Coverage				1.3	1.3	1.4
III. Balance Sheet (at end of each fiscal year)						
Fixed assets	182	780	1,370	1,370	1,370	1,370
Less depreciation allowance	-	-	-40	-147	-254	-361
Current assets	118	220	525	640	640	640
Additional assets	-	-	-	138	193	256
Total Assets	300	1,000	1,855	2,001	9,949	1,905
Capital	200	400	700	900	900	900
Surplus	-	-	45	90	143	210
IBRD Loan	100	600	1,000	901	796	685
Current Liabilities	-	-	110	110	110	110
Total Liabilities	300	1,000	1,855	2,001	1,949	1,905

ANNEX 14

MANI TEX

Frosinone, May 11 st 1955

International Bank for Reconstruction
and Development
1818 H Street, N. W.
Washington 25, D. C., U. S. A.

(1) This will confirm certain understaydings which have been reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), and Manitex.

(2) You have informed us that the Bank is considering a loan to the Cassa per Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa) and that part of that loan will be specifically allocated for loans by the Cassa for various industrial undertakings in the area of its competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate at Frosinone a woolen mill to produce 360.000 Kg. of wool yamper year. The pro-forma balance sheet on completion of the project which we have discussed, would be as follows:

Assets		Liabilities	
Current Assets	400,000,000	Current Liabilities. . .	180.000.000
Fixed Assets	950.000,000	IBRD Loan	570.000.000
		Shareholders Advances. .	300.000.000
		Capital.	300.000.000
	1.350.000.000		1.350.000.000

(4) You have said that before you could approve favorable consideration by the Cassa of the proposed loan, you would require certain undertakings from Manitex in respect of the treatment of shareholders' advances and working capital.

(5) The assurances and undertakings which you have requested to be effective while the loan from the Cassa would be outstanding are that:

(a) Valid arrangements be made under which, except as the Bank and Cassa shall otherwise agree:

(i) the share capital of the Company shall be at least 300.000.000 lire, paid in as required;

(ii) shareholders' advances (which, on completion of the plant, will total at least the difference between 600.000.000 lire and paid in share capital) would not be withdrawn;

(iii) shareholders' advances would be subordinated to all debts of Manitex; and

(iv) interest or any other remuneration would be payable and paid on shareholders' advances only out of net profits and only to the extent that dividends would be payable thereon if such advances had been converted to share capital.

(b) The undersigned would not without the approval of the Bank and the Cassa pay dividends or make other payments to shareholders, or adopt any policy, which would result in:

(i) the excess of current assets over current liabilities to be less, at any time, than 200.000.000 lire, or

(ii) the ratio of current assets to current liabilities to be less, at any time, than 2:1.

(6) For the purpose of the preceding paragraph we have agreed that "current assets" should be considered as cash and assets readily convertible to cash and all other assets which would, within one year in the ordinary course of the undersigned's business be converted into cash or assets readily convertible into cash; and that "current liabilities" should be considered as liabilities due and payable and all other liabilities which would be payable or could be payable or could be called for payment within one year.

(7) The undersigned hereby gives you the assurance set forth in paragraph (5) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof the Cassa grants a loan to the undersigned for the construction of said mill in the approximate amount which we have discussed, namely 570.000.000 lire.

(8) It is understood that the terms and conditions of any such loan from the Cassa will be set forth in an agreement to be negotiated and entered into between the undersigned and the Cassa and that the substance of the assurances and undertakings given in this letter will be incorporated therein.

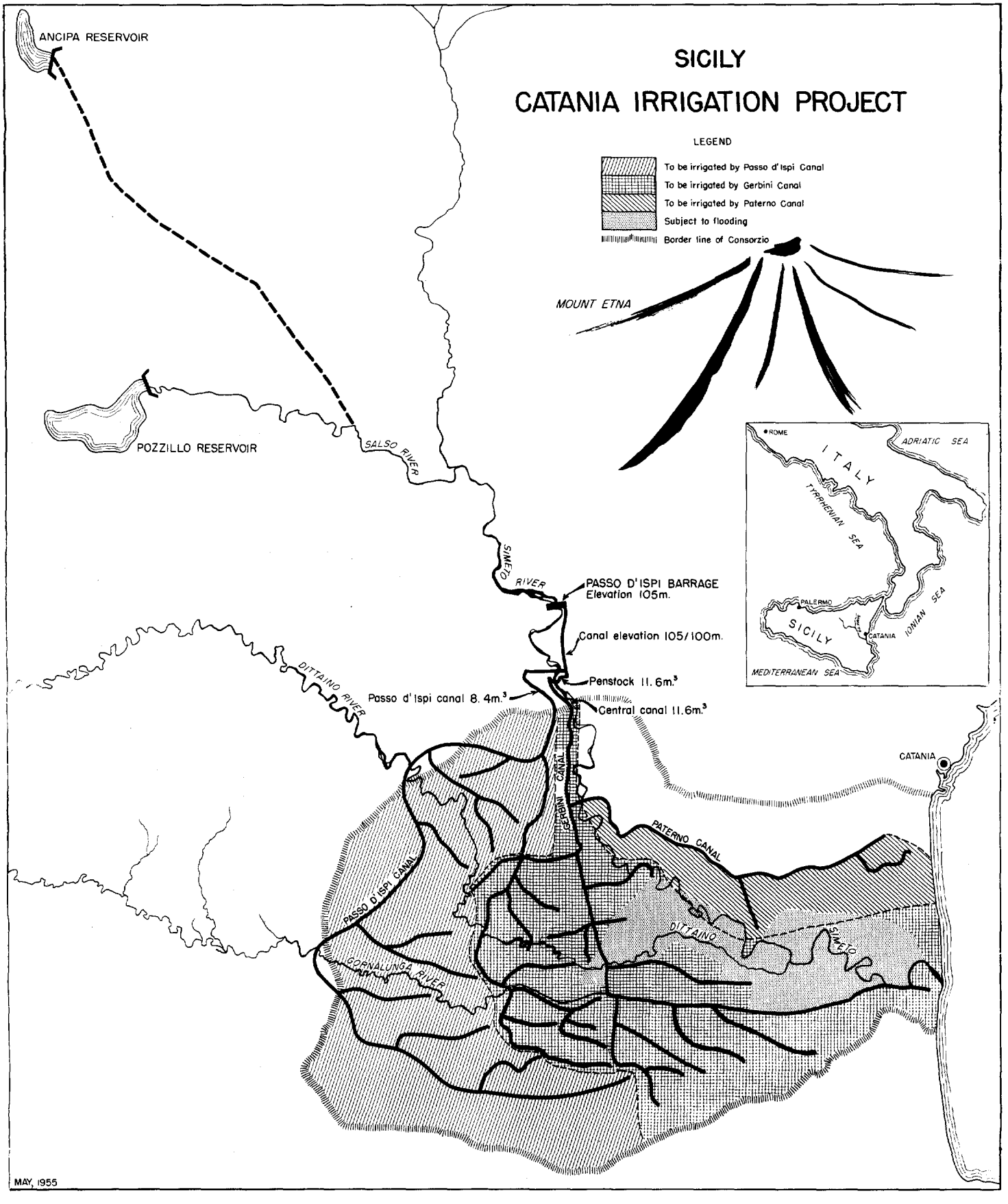
M A N I T E X

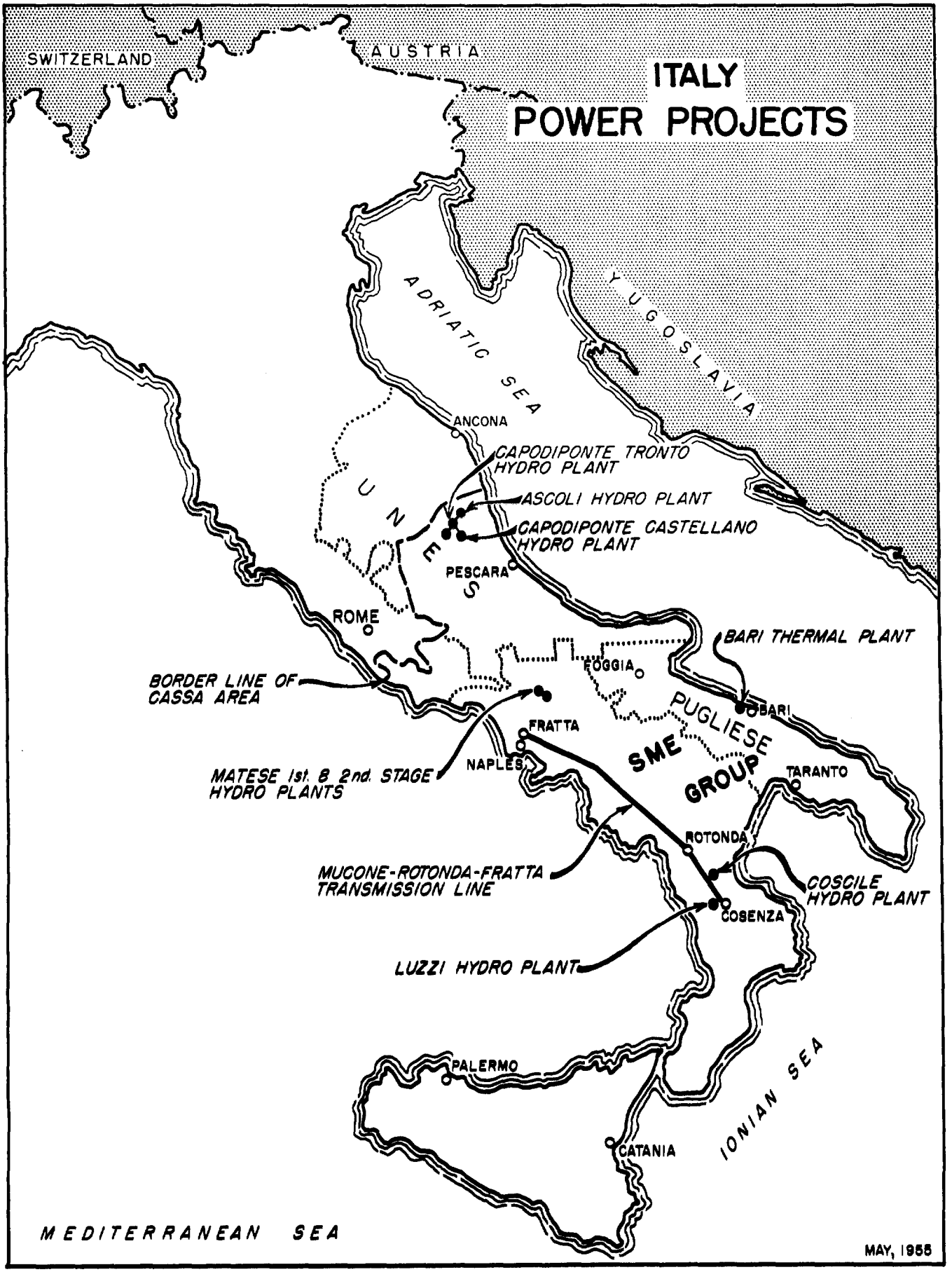
L'Amministratore Unico

MANITEX

FINANCIAL FORECASTS
(million lire)

	Construction Period	Operation Period				
	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61
Production (% of capacity)		70	83	100	100	100
(tons)		250	300	360	360	360
I Earnings Statement						
Operating costs		802	922	1,082	1,082	1,082
Depreciation		90	90	90	90	90
Interest		34	32	29	26	23
Taxes		6	13	27	32	34
Total		932	1,057	1,228	1,230	1,229
Net Sales		950	1,125	1,357	1,357	1,357
Net income after taxes		18	68	129	127	128
Net income (% of share capital and shareholders' advances)		3.0%	11.0%	21.5%	21.2%	21.4%
II Source and Application of Funds						
Net income	-	18	68	129	127	128
Depreciation	-	90	90	90	90	90
Shareholders' loans	300	-	-	-	-	-
Equity paid in	300	-	-	-	-	-
IBRD loan	570	-	-	-	-	-
Short-term loans	180	-	-	-	-	-
Total sources	1,350	108	158	219	217	218
Fixed assets	950	-	-	-	-	-
Current assets	400	-	-	-	-	-
Repayment IBRD loan	-	42	45	48	51	54
"Additional assets"	-	66	113	171	166	164
Total applications	1,350	108	158	219	217	218
Debt Service Coverage		1.9	2.5	3.3	3.2	3.1
III Balance Sheet (at end of each fiscal year)						
Fixed assets	950	950	950	950	950	950
Depreciation allowance	-	- 90	-180	-270	-360	-450
Current assets	400	400	400	400	400	400
"Additional assets"	-	66	179	350	516	680
Total	1,350	1,326	1,349	1,430	1,506	1,580
Capital	300	300	300	300	300	300
Shareholders' advances	300	300	300	300	300	300
Surplus	-	18	86	215	342	470
IBRD loan	570	528	483	435	384	330
Current Liabilities	180	180	180	180	180	180
Total	1,350	1,326	1,349	1,430	1,506	1,580


SICILY
CATANIA IRRIGATION PROJECT
LEGEND
To be irrigated by Passo d'Ispi Canal
To be irrigated by Gerbini Canal
To be irrigated by Paterno Canal
Subject to flooding
Border line of Consorzio
ANCIPA RESERVOIR
POZZILLO RESERVOIR
SALSO RIVER
SIMETO RIVER
MOUNT ETNA
PASSO D'ISPI BARRAGE
Elevation 105m.
Canal elevation 105/100m.
Penstock 11.6m.³
Passo d'Ispi canal 8.4m.³
Central canal 11.6m.³
DITTAINO RIVER
CATANIA
GERBINI CANAL
PATERNO CANAL
PASSO D'ISPI CANAL
DITTAINO
SIMETO
GORNALUNGA RIVER
ROME
ADRIATIC SEA
ITALY
TYRRHENIAN SEA
PALERMO
SICILY
CATANIA
IONIAN SEA
MEDITERRANEAN SEA
MAY, 1955


ITALY
POWER PROJECTS
SWITZERLAND
AUSTRIA
YUGOSLAVIA
ADRIATIC SEA
UNES
ANCONA
CAPODIPONTE TRONTO HYDRO PLANT
ASCOLI HYDRO PLANT
CAPODIPONTE CASTELLANO HYDRO PLANT
PESCARA
ROME
BARI THERMAL PLANT
FOGGIA
BORDER LINE OF CASSA AREA
BARI
PUGLIESE
SME
GROUP
FRATTA
NAPLES
TARANTO
MATESE 1st & 2nd STAGE HYDRO PLANTS
ROTONDA
MUCONE-ROTONDA-FRATTA TRANSMISSION LINE
COSCILE HYDRO PLANT
COSENZA
LUZZI HYDRO PLANT
PALERMO
IONIAN SEA
CATANIA
MEDITERRANEAN SEA
MAY, 1955

S.M.E. GROUP

Subsidiary Companies

Company	Incor-po-rated	Share capital (Lire) Initial	Share capital (Lire) Dec. 31, 1954	S.M.E. Holding %	Area Sq. Km.	Population 1954
Societa Generale Pugliese di Elettricita	1912	30,000	5,075,000,000	78	14,071	2,850,000
Societa Elettrica della Campania	1906	500,000	4,279,920,000	71	13,480	2,400,000
Societa Elettrica della Calabria	1926	1,200,000	1,640,625,000	83	15,095	2,150,000
Societa Lucana per Imprese I-droelettriche	1914	1,325,000	870,000,000	81	14,400	840,000
Societa Elettrica Bonifiche e Irrigazioni	1925	2,500,000	266,560,000	90	(1)	(1)

(1) Included in Pugliese figures.

SOCIETA' MERIDIONALE DI ELETTRICITA' (S.M.E.)
Condensed Balance Sheets (1)
(in billions of Lire)

	March 31, 1953	March 31, 1954	Dec. 31, 1954 (2)
Assets			
Fixed Assets	124.72	143.16	143.16
less: Reserve for Depreciation	32.05	35.55	35.55(3)
Net Book Value	92.67	107.61	107.61
Construction in Progress (including advance payments and construction stores)	11.11	5.81	13.63
Investments in subsidiaries and affiliated Companies	11.22	16.73	16.91
Due from subsidiaries and affiliated Companies	6.62	5.26	6.88
Current Assets:			
a) Cash and Banks	1.62	.11	5.16
b) Accounts Receivable - Sales of Energy	.98	1.14	2.13
c) Stores	1.06	1.03	1.08
d) Other (incl. short term advances to subsidiaries and affiliated Companies)	3.98	3.62	3.30
Total current	7.64	5.90	11.67
Miscellaneous (loan discount, etc.)	1.47	1.37	1.80
	130.73	142.68	158.50
Capital, Reserves and Liabilities			
Share Capital (Subscribed)	36.29	43.54	54.43
less: Not paid in (4)	1.44	-	4.69
Paid in	34.85	43.54	49.74
Reserves (Ordinary, Extra-ord., etc.)	.96	1.27	1.49
Capital Surplus due to Revaluation of Assets	47.21	42.	42.
Equity	83.02	86.81	93.23
Long Term Debts	25.23	25.89	31.86
Current and Accrued Liabilities (5)	8.76	10.61	8.19
Due to Banks	9.69	14.72	15.57
Reserve for Social Security, etc.	1.40	1.41	1.51
Other provisions, etc.	1.07	1.07	1.07
Balance Profit and Loss (Undivided Profits)	1.55	2.17	7.07
	130.72	142.68	158.50

Notes:
(1) non-consolidated figures
(2) interim figures based on trial balance
(3) does not include allocation to depreciation reserve for period 4/1/54-12/31/54 estimated at about Lire 2.3 billion
(4) subject to call
(5) includes current balances due to subsidiaries and affiliated Companies.

SOCIETA 'MERIDIONALE DI ELETTRICITA' (S.M.E.) Annex 20

Condensed Income Statements (1)

(in billions of Lire)

	1949/50	1950/51	1951/52	1952/53	1953/54
Gross Revenues					
Sales of energy	8.24	9.19	10.39	12.33	14.58
Other income (2)	.81	1.40	1.49	2.20	2.38
Subsidies	-	-	-	.29	.99
	9.05	10.59	11.88	14.82	17.95
Operating Expenses, Cost of purchased power, maintenance, general expenses (including interest)	6.23	6.97	7.20	9.24	10.09
Depreciation	1.10	1.10	1.50	2.30	3.50
Taxes	.32	.57	.79	.86	.95
	7.65	8.64	9.49	12.40	14.54
Net Profit	1.40	1.95	2.39	2.42	3.41
Dividends	1.31	1.85	2.23	2.27	3.21

(1) Non-consolidated figures.

(2) Includes dividends from subsidiaries and affiliated Companies, contributions by consumers, etc.

Annex 21

S.M.E. GROUP
Generating Capacity, Power Production, Purchases and Losses
1946 - 54

	1946	1947	1948	1949	1950	1951	1952	1953	1954
Generating Capacity (1000 kw)									
Hydro Plants	264	320	345	351	364	374	397	516	541
Thermal Plants	45	45	45	45	45	45	80	150	150
Total	309	365	390	396	409	419	477	666	691
Capacity Purchased Power	48	48	61	72	86	96	106	127	127
Total Available Capacity	357	413	451	468	495	515	583	793	818
Actual Peak Load	295	350	370	362	407	468	492	580	670
Production (mill. kwh)									
Hydro Plants	1056	1525	1282	1066	1421	1794	1665	1985	2191
Thermal Plants	63	38	97	205	136	4	139	30	152
Total	1119	1563	1379	1271	1557	1798	1804	2015	2343
Purchases	135	112	429	389	388	345	500	512	458
Total Energy	1254	1675	1808	1660	1955	2143	2304	2527	2801
Losses	368	419	439	434	433	442	452	470	524
Own Uses	31	32	32	32	42	60	62	54	62

Annex 22

S.M.E. Group
Power Sales 1946-1954 and Forecasts 1955-1964
(mill. kwh)

Categories of consumers	1946	1947	1948	1949	1950	1951	1952	1953	1954	Average Annual increase 1946-54 %	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	Average Annual increase 1954-64 %
Public Light	16,4	29,2	35,2	35,6	41,8	45,1	51,2	55,7	60,6	18	65	70	75	81	86	90	96	103	109	117	6.8
Private Light	147,3	168,9	181,1	169,1	181,6	192,6	198,7	217,2	242,8	7	259	281	302	324	349	375	403	432	465	500	7.5
Domestic 1/	72,8	83,3	94,1	81,2	84,2	94,8	130,8	161,3	196,5	14	219	244	269	299	333	369	409	454	503	559	11.-
Industry less than 30 kw	99.3	114,3	124,5	118,9	134,2	140,6	171,5	193,6	227,2	12	254	286	323	363	406	458	514	577	650	730	12.4
Industry above 30 kw	233,5	278,2	366,9	331,4	410,1	501,9	532,7	651,8	743,4	16	848	966	1101	1254	1430	1629	1858	2119	2416	2754	14.-
Electro-chemical and electro-metallur-gical	98,0	301,0	313,0	228,0	377,3	451,1	448,6	483,6	490,9	21	496	501	506	512	518	524	531	538	546	554	1.-2/
Traction	133,4	169,3	169,8	199,8	210,6	195,3	210,4	196,3	206,0	6	214	222	232	241	250	260	271	281	293	304	4.-
Other 3/	85,1	112,2	84,3	61,5	72,3	79,6	98,6	91,8	163,0	9	180	200	170	193	210	298	330	364	402	443	10.5
Total Sales	885,8	1256,4	1368,9	1225,5	1512,1	1701,0	1842,5	2051,3	2330,4	13	2535	2770	2978	3267	3582	4003	4412	4868	5384	5961	10.-

Notes:
1/ Cooking, heating etc.
2/ Electro-chemical: 0; Electro-metallurgical: 6%.
3/ Mainly sales to U.N.E.S.

Annex 23

S.M.E. GROUP
INVESTMENT PROGRAM 1955-60
(in millions of Lire)

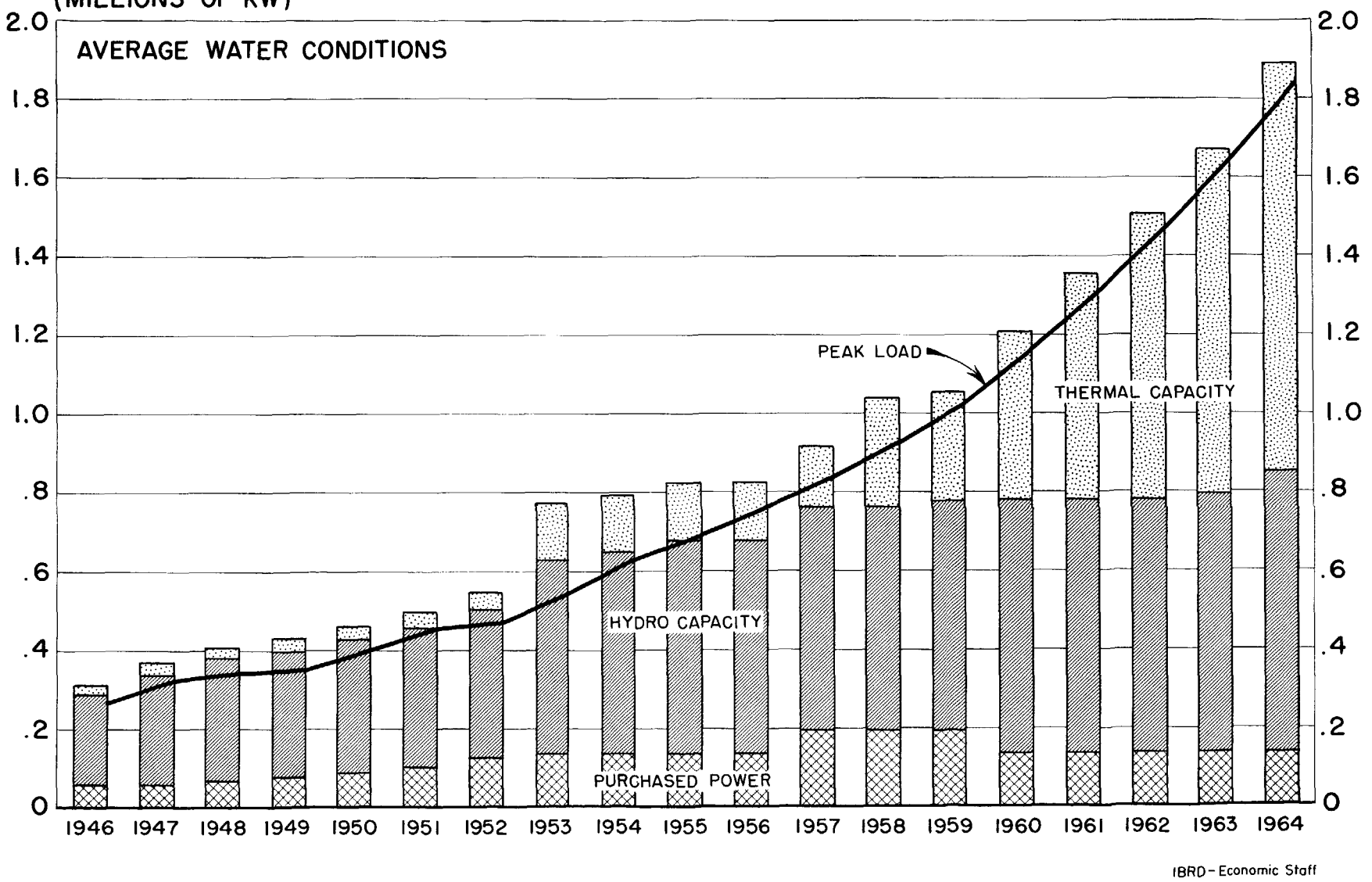
	1955	1956	1957	1958	1959	1960
Part 1						
a) IBRD Projects						
S.M.E.						
Luzzi Hydro Plant	2,200	115	-	-	-	-
Matese Hydro Plants	150	700	150	-	-	-
Mucone-Fratta Transmission Lines	1,655	350	-	-	-	-
	4,005	1,165	150	-	-	-
Pugliese						
Bari Thermal Plant	2,000	3,000	6,500	-	-	-
Coscile Hydro Plant	100	400	600	-	-	-
	2,100	3,400	7,100	-	-	-
Sub-totals	6,105	4,565	7,250	-	-	-
b) Other Projects						
S.M.E.						
Transmission Lines	-	2,950	900	-	-	-
Substations	2,065	1,250	1,600	-	-	-
Distribution	2,000	2,500	3,500	-	-	-
	4,065	6,700	6,000	-	-	-
Pugliese						
Transmission Lines	850	600	200	-	-	-
Substations	200	2,000	1,150	-	-	-
Distribution	700	1,300	2,500	-	-	-
	1,750	3,900	3,850	-	-	-
Other Subsidiaries						
Transmission Lines	400	400	300	-	-	-
Substations	600	600	450	-	-	-
Distribution	750	2,150	1,750	-	-	-
	1,750	3,150	2,500	-	-	-
Sub-totals	7,565	13,750	12,350	-	-	-
Totals	13,670	18,315	19,600	-	-	-

(continued on following page)

Annex 23

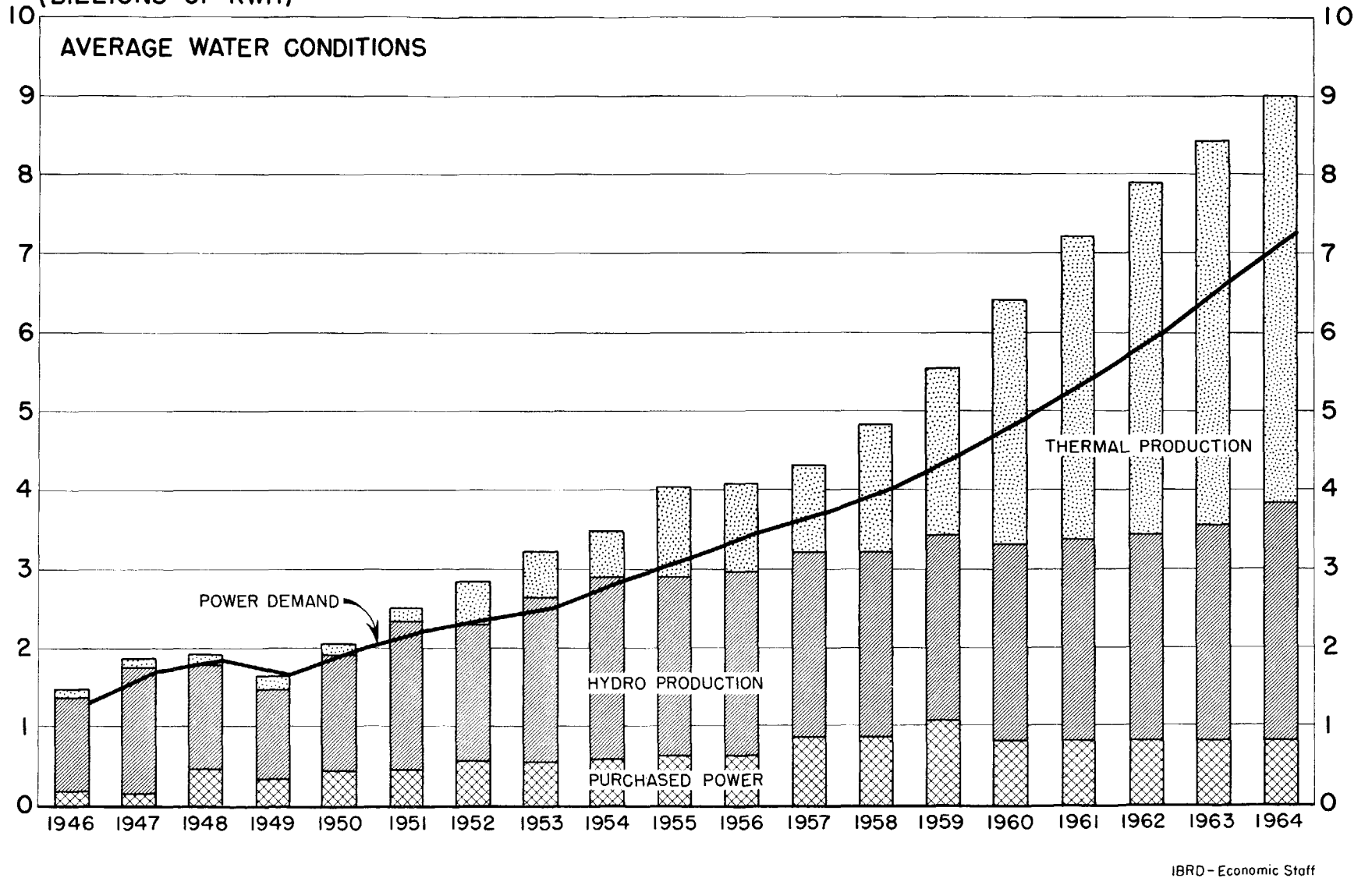
	1955	1956	1957	1958	1959	1960
Part 2						
S.M.E.						
Thermal Plants	-	-	4,950	8,250	11,550	8,250
Basso Liri Hydro Plant	-	1,500	2,400	2,100	-	-
Bussento Hydro Plants	-	700	1,750	2,100	2,450	-
Transmission Lines	-	-	-	1,200	400	2,000
Substations	-	-	-	2,750	1,600	2,500
Distribution	-	-	-	5,000	5,000	7,550
	-	2,200	9,100	21,400	21,000	20,000
Pugliese						
Transmission Lines	-	-	-	550	400	350
Substations	-	-	-	1,150	2,000	1,000
Distribution	-	-	-	4,000	3,600	7,154
	-	-	-	5,700	6,000	8,500
Other Subsidiaries						
Sava-Lete Hydro Plant	-	200	3,000	3,800	-	-
Transmission Lines	-	-	-	300	400	1,600
Substations	-	-	-	450	600	1,600
Distribution	-	-	-	2,950	4,000	6,000
	-	200	3,000	7,500	5,000	9,200
Totals	-	2,400	12,100	34,600	32,000	38,000
Grand Total	13,670	20,715	31,700	34,600	32,000	38,000

ITALY: SME GROUP
AVAILABLE CAPACITY AND PEAK LOAD, 1946-1964



ANNEX 24

ITALY: SME GROUP
AVAILABLE POWER AND DEMAND, 1946-1964



IBRD - Economic Staff

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ANNEX 25

S. M. E.

Luzzi Hydro Power Plant

Construction Cost Estimate

Land and Rights	Lire	25	million
Civil Works:			
Barrage and Intake Works	"	90	"
Storage Basin	"	160	"
Sluice Gate	"	33.2	"
Pressure Tunnel	"	2,786.8	"
Surge Tank	"	232.9	"
Penstock	"	192.8	"
Power Station and Tailrace	"	389.5	"
Outdoor Switchyard	"	235.7	"
Miscellaneous	"	153.8	"
Mechanical & Electrical Equipment:			
Equipment	"	1,684.2	"
Engineering, supervision, overhead and interest during construction (1)	"	505	"
Contingencies	"	311	"
Total:	Lire	7,000	million

(1) applies only to work outstanding on December 31, 1954. For work completed, these charges are already included in overall figures. S.M.E. calculates interest during construction at an average of 4% annually. If more interest should accrue, it is charged off to operations.

Annex 27

S. M. E.

Matese Hydro Power Plants

Construction Cost Estimate

Plant No. 1			
Penstock	Lire	130 million	
Powerhouse	"	75 million	
Mechanical Equipment	"	85 million	
Electrical Equipment	"	165 million	
Outdoor Switchyard	"	20 million	
Transport & Miscellaneous ...	"	25 million	
		Lire	500 million
Plant No. 2			
Penstock	"	95 million	
Powerhouse	"	50 million	
Mechanical Equipment	"	60 million	
Electrical Equipment	"	100 million	
Transport & Miscellaneous ...	"	15 million	
		Lire	320 million
Transmission Line & Substation			
Land Survey and Rights	"	3.7 million	
Towers	"	57.8 million	
Conductors & Ground Wire	"	61.8 million	
Substation	"	118 million	
		Lire	241 million
Engineering, Supervision, Overhead, interest during construction		"	112 million
Contingencies		"	107 million
		Total : Lire	1,280 million

S. M. E.

Mucone - Rotonda - Fratta

Construction Cost Estimate

220 KV Transmission Line

Transmission Line:				
Engineering and Survey.....	Lire	23	million	
Land and Rights.....	"	43	"	
Towers.....	"	721	"	
Conductors & Ground Wire.....	"	1.172	"	
			Lire	1.959 million
Popoli Substation				
Civil & Mechanical Works.....	"	98	million	
Transformers.....	"	203	"	
Electrical equipment.....	"	62	"	
			Lire	363 million
Tusciano Substation				
Civil & Mechanical Works.....	"	81	million	
Transformers.....	"	290	"	
Electrical equipment.....	"	59	"	
			Lire	430 million
Engineering, supervision, overhead, interest during construction.....			"	155 "
Contingencies.....			"	93 "
			Total: Lire	3.000 million

SOCIETA 'MERIDIONALE DI ELETTRICITA' (S.M.E.)

Pro-forma Balance Sheet (1)

as at December 31, 1957

(in billions of Lire)

Assets		
Fixed Assets	181.62	
less: Reserve for Depreciation	50.65	
Net Book Value		130.97
Construction in Progress		11.30
Investments in affiliated Companies		25.96
Due from affiliated Companies		6.88
Net Current Assets (Current Assets less Current and Accrued Liabilities)		2.35
Miscellaneous (Unamortized discount on loans etc.)		2.65
		180.11
Capital, Reserves and Liabilities		
Share Capital		92.77
Reserves (Ordinary and Extra-Ordinary)		1.49
Capital Surplus due to Revaluation of Assets		23.66
Equity		117.92
Long Term Debts:		
Proposed IBRD-Loan	5.63	
Other Long and Medium Term Loans	44.54	50.17
Reserve for Social Security etc. and other provisions		2.58
Balance Profit and Loss Account		9.44
		180.11

(1) Non consolidated figures

SOCIETA' MERIDIONALE DI ELETTRICITA' (S.M.E.)

Estimated Income Statements (1)

(in billions of Lire)

		1955	1956	1957	1958	1959
	Gross Revenues					
1.	Sales of energy	18.80	25.37	29.24	33.55	37.99
2.	Other Income (2)	2.23	2.60	3.20	3.30	3.65
3.	Subsidies	2.71	.90	1.05	.40	.41
4.	Total	23.74	28.87	33.49	37.25	42.05
	Cost of Operations					
5.	Operating expenses and maintenance (including general expenses)	6.38	6.91	7.71	8.62	9.38
6.	Fuel	1.07	2.22	2.24	2.26	2.05
7.	Cost of purchased power	2.63	3.95	5.89	6.26	8.52
8.	Depreciation	4.50	4.90	5.70	6.55	7.00
9.	Taxes	1.30	1.50	1.85	2.24	2.40
10.	Total	15.88	19.48	23.39	25.93	29.35
11.	Net Income from Operations	7.86	9.39	10.10	11.32	12.70
12.	deduct: interest	2.99	3.29	3.21	3.24	3.81
13.	Net Profit	4.87	6.10	6.89	8.08	8.89

(1) Non-consolidated figures.

(2) Includes dividend from subsidiaries and affiliated Companies, contributions by consumers, etc.

SOCIETA' MERIDIONALE DI ELETTRICITA' (S.M.E.)
Forecast of Receipts and Expenditures 1/
(in billions of Lire)

	1955	1956	1957	1958	1959
RECEIPTS					
1. Net Income from Operations 2/	7.86	9.39	10.10	11.32	12.70
2. Depreciation allowances	4.50	4.90	5.70	6.55	7.00
3. Receipts from Operations	12.36	14.29	15.80	17.87	19.70
4. Proposed Borrowing:					
a) I.B.R.D. Loan	4.04	1.37	.21		
b) Other long and medium term loans (net) 3/	6.00	3.90	7.30	6.05	20.00
5. Short term borrowing from Banks				1.64	2.18
6. Sale of Share Capital		10.00	10.00	10.00	5.00
7. Payments by Share holders 4/	4.69				
8. Total Receipts	27.09	29.56	33.31	35.56	46.88
EXPENDITURES					
9. Construction: 5/					
a) First Group:					
(i) I.B.R.D. Projects	4.04	1.37	.21		
(ii) Other Projects	4.03	6.49	5.94		
	8.07	7.86	6.15		
b) Second Group		2.20	9.10	21.40	21.00
c) Third Group					6.83
Total Construction	8.07	10.06	15.25	21.40	27.83
10. Plant Renewals	.75	.90	1.10	1.40	1.60
11. Investments in Subsidiaries	.87	2.70	5.48	.37	3.00
12. Total investments	9.69	13.66	21.83	23.17	32.43
13. Debt Service: (amortization and interest)					
a) I.B.R.D. Loan 6/	.12	.27	.30	.51	.51
b) Other long and medium term loans	3.60	4.66	5.35	5.51	6.72
14. Repayment of Bank Credit (incl. interest)	9.63	6.31	.36	.24	.37
15. Total Debt Service	13.35	11.24	6.01	6.26	7.60
16. Deduct interest charged to construction 5/	.32	.40	.61	.86	1.11
17. Net	13.03	10.84	5.40	5.40	6.49
18. Payment of Dividend	4.37	5.06	6.08	6.99	7.96
19. Total Expenditures	27.09	29.56	33.31	35.56	46.88

Notes:
1/ Non-consolidated figures.
2/ Before deduction of interest.
3/ Net proceeds assuming a discount of about 9%.
4/ Represents subscribed but not yet paid in balance of share capital as of Dec. 31, 1954.
6/ Figures for 1955, 1956 and 1957 represent interest only; first amortization installment to be paid in 1958.
5/ Interest charged to construction at a nominal rate of 4% per annum.

SOCIETA' GENERALE PUGLIESE DI ELETTRICITA' (S.G.P.E.)
SUMMARY OF BALANCE SHEETS
(in millions of Lire)

Assets	1952	1953	1954
Fixed Assets	18,516	20,263	20,923
Less Depreciation	8,677	9,644	10,394
Net Book Value	9,839	10,619	10,529
Construction Work in Progress	173	188	949
Investments in affiliated Companies	1	1	1
Current Assets:			
a) Cash and Banks	10	3	3
b) Customers Accounts Receivable	340	412	399
c) Stores	202	446	465
d) Due from SME (Parent Company)	1,682	1,462	1,815
e) Other	513	343	204
Total Current	2,747	2,666	2,886
Miscellaneous (Loan Discounts, etc.)	25	20	16
Total	12,785	13,494	14,381
Capital, Reserves and Liabilities			
Share Capital (Paid in)	2,800	3,734	5,075
Reserves and Capital Surplus:			
Legal	117	160	215
Capital Surplus Due to Revaluation of Assets	4,941	5,027	3,972
	5,058	5,187	4,187
Equity	7,858	8,921	9,262
Long Term Debts	598	591	584
Due to Banks, etc.	1,650	870	500
Current and Accrued Liabilities	1,304	1,368	1,588
Reserve for Social Security and Severance Pay (staff)	704	776	893
Other Provisions	527	770	1,282
Undivided Profits	144	198	272
Total	12,785	13,494	14,381

SOCIETA' GENERALE PUGLIESE DI ELETTRICITA' (S.G.P.E.)

Condensed Income Statements

(in millions of Lire)

	1950	1951	1952	1953	1954
Gross Income					
Sales of electrical energy	4,733	5,273	5,760	6,616	7,517
Other income	118	116	570	437	835
Subsidies				253	443
Total	4,851	5,389	6,330	7,306	8,795
Cost of Operations					
Operating expenses (including maintenance, cost of purchased power, general expenses, etc.)	4,236	4,675	5,441	6,117	7,076
Taxes	120	171	170	234	539
Depreciation	300	350	500	650	750
Total	4,656	5,196	6,111	7,001	8,365
Net Profit	195	193	219	305	430
Dividend	180	180	202	286	402

Annex 34

SOCIETA' GENERALE PUGLIESE DI ELETTRICITA'
Power Sales 1946-54 and Forecasts 1955-64
(mill. kwh)

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Categories of consumers																			
Public Light	3	5	7	7	8	8	9	10	11	12	13	14	15	16	17	18	19	20	22
Private Light	42	47	50	47	49	51	48	53	60	64	69	74	80	86	92	99	106	114	123
Domestic	27	31	38	32	34	37	55	64	71	79	88	97	108	120	133	148	163	181	201
Industry less than 30kw	20	23	28	25	29	30	37	42	52	58	65	74	83	93	105	118	133	149	167
Industry above 30kw	90	105	140	121	158	194	201	215	243	277	315	359	409	466	531	605	690	787	897
Traction	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	6	6	6	6
Other	3	4	6	5	5	6	6	7	8	9	10	11	13	14	15	17	19	21	23
Total Sales	188	218	272	240	287	330	360	395	449	503	564	634	713	800	898	1011	1136	1278	1439

P U G L I E S E

Coscile Hydro Power Plant

Construction Cost Estimate

Barrage and Intake	Lire	180 million
Pressure Tunnel	"	230 million
Surge Tank	"	45 million
Steel Penstock	"	79 million
Powerhouse	"	35 million
Equipment, mechanical & electrical	"	145 million
Tailrace	"	65 million
Miscellaneous	"	50 million
Engineering, supervision, overhead, interest during construction ...	"	161 million
Contingencies	"	110 million
Total	Lire	1,100 million

PUGLIESE

Bari Thermal Power Plant

Construction Cost Estimate

Building Construction	Lire	1,450	million
Boilers with Accessories	"	2,500	"
Turbo-generators with Accessories	"	2,000	"
Condensers with Accessories	"	1,200	"
Water Treatment Plant	"	350	"
Cooling Towers	"	600	"
Fuel Storage and Handling	"	250	"
Transformers	"	450	"
Switchgear	"	600	"
Control Equipment	"	300	"
Engineering, Supervision, Overhead, Interest during Construction	"	1,100	"
Contingencies	"	700	"
Total	Lire	11,500	million

SOCIETA 'GENERALE PUGLIESE DI ELETTRICITA' (S.G.P.E.)

Pro-forma Balance Sheet

as of December 31, 1957

(in millions of Lire)

Assets		
Fixed Assets	44,602	
less: Reserve for Depreciation	13,994	
Net Book Value		30,608
Investments in affiliated Companies		1
Net Current Assets (current assets less current and accrued liabilities)		1,311
Miscellaneous (loan discounts, etc.)		779
		32,699
Capital, Reserves and Liabilities		
Share Capital		10,223
Reserves and Surplus:		
Legal Reserve	215	
Capital Surplus due to Revaluation of Assets	2,247	2,462
Long Term Debts:		
Proposed I.B.R.D. Loan	7,500	
Other	9,683	17,183
Reserve for Social Security etc., and other provisions		2,175
Undivided Profits		656
		32,699

SOCIETA' GENERALE PUGLIESE DI ELETTRICITA' (S.G.P.E.)

Estimated Income Statements

(in millions of Lire)

		1955	1956	1957	1958	1959
	Gross Income					
1.	Sales of energy	8,287	10,836	12,599	15,095	16,783
2.	Other income	900	900	905	935	965
3.	Subsidies	550	165	173	25	42
4.	Total	9,737	11,901	13,677	16,055	17,790
	Cost of Operations					
5.	Operating Expenses (including maintenance)	2,987	3,388	3,653	4,538	5,100
6.	Fuel				1,440	2,400
7.	Cost of purchased power	4,743	5,622	6,369	4,679	4,061
8.	Depreciation	850	1,300	1,450	2,400	3,000
9.	Taxes	570	650	670	730	780
10.	Total	9,150	10,960	12,142	13,787	15,341
11.	Net Income from Operations	587	941	1,535	2,268	2,449
12.	less: interest	82	406	670	1,442	1,377
13.	Net Profit	505	535	865	826	1,072

SOCIETA' GENERALE PUGLIESE DI ELETTRICITA' (S.G.P.E.)

Forecast of Receipts and Expenditures

(in millions of Lire)

	1955	1956	1957	1958	1959
RECEIPTS					
1. Net Income from Operations 1/	587	941	1,535	2,268	2,449
2. Depreciation allowances	850	1,300	1,450	2,400	3,000
3. Receipts from Operations	1,437	2,241	2,985	4,668	5,449
4. Proposed Borrowing:					
a) I.B.R.D. loan	2,100	3,400	2,000		
b) Other long and medium term loans 2/	1,350	3,185	4,100	4,095	
c) Short term credits from Banks			590	309	216
5. Sale of Capital Stock	423	-	3,000	-	4,000
6. Total Receipts	5,310	8,826	12,675	9,072	9,665
EXPENDITURES					
7. Construction: 3/					
a) I.B.R.D. Projects	2,100	3,400	7,100		
b) Other	1,750	3,900	3,850	5,700	6,000
	3,850	7,300	10,950	5,700	6,000
8. Plant renewals	80	250	300	400	500
9. Debt Service (principal and interest)					
a) I.B.R.D.	58	208	356	684	684
b) Other long and medium term loans	182	507	818	1,534	1,617
10. Repayment of short term bank debts and other (including interest payments)	822	311	6	55	73
11. Total (9 + 10)	1,062	1,026	1,180	2,273	2,374
12. Less interest charged to construction	126	240	342	68	96
13. Net (11 - 12)	936	786	838	2,205	2,278
14. Dividend payments	438	484	581	761	881
15. Other	6	6	6	6	6
16. Total Expenditures	5,310	8,826	12,675	9,072	9,665

Notes:

1/ before deduction of interest payments, which have been included in items 9 and 10.

2/ represent net proceeds; discount amounts to approximately 9% of principal amount of loans.

3/ includes interest at a nominal rate of 4% per annum.

Annex 40

UNIONE ESERCIZI ELETTRICI (UNES)
Condensed Balance Sheets
(in millions of Lire)

	12/31/1952	12/31/1953	12/31/1954
ASSETS			
Fixed Assets	45800.3	47663.8	53552.1
less: Reserve for Depreciation and Amortization	14218.6	16018.6	18018.6
Net Bookvalue	31581.7	31645.2	35533.5
Construction Work in Progress	2193.6	4028.3	4830.1
Advance Payments to Suppliers	153.2	879.5	1283.7
Participations in affiliated Companies	685.1	1076.5	1088.9
Due from affiliated Companies (long-term advances)	95.4	523.3	1080.5
Current Assets:			
Cash and Banks	195.6	323.7	457.7
Accounts Receivable, deposits, etc.	1821.8	2304.2	2485.3
Stores	1092.5	1285.0	994.6
Total Current	3109.9	3912.9	3937.6
Miscellaneous	80.-	265.-	406.-
	37898.9	42330.7	48160.3
CAPITAL, RESERVES AND LIABILITIES			
Share Capital	6000.-	11200.-	14000.-
Not paid in	-	649.2	-
Paid in	6000.-	10550.8	14000.-
Reserves and Surplus			
Legal, Statutory, etc.	490.9	603.6	734.8
Capital Surplus due to Revaluation of Assets (Balance)	20279.4	17374.9	14488.3
Long Term Debts	2884.9	4641.2	6369.3
Current and Accrued Liabilities	2944.7	3635.7	3943.1
Banks	1022.9	-	2337.6
Pension Fund and Other Provisions	3890.8	4774.1	5443.7
Balance Profit and Loss Account (Undistributed Profits)	385.3	750.4	843.5
	37898.9	42330.7	48160.3

Annex 41

UNES - INCOME STATEMENTS FOR THE YEARS 1950 - 1954

(expressed in million Lire)

	1950	1951	1952	1953	1954
a) - Operating revenues					
- Sales of electrical energy	5,950	6,827	7,640	8,788	9,549
- connection contributions	264	346	429	542	724
- subsidies	-	-	-	-	277
	6,214	7,173	8,069	8,330	10,550
b) - Other revenues	126	154	144	340	247
c) - Total revenues	6,340	7,327	8,213	8,670	10,797
d) - Operating expenditures					
- operation and maintenance	4,802	5,206	5,705	5,053	6,500
- depreciation	720	1,200	1,400	1,800	2,000
- taxes	159	242	373	580	682
	5,681	6,648	7,478	7,433	9,182
e) - Net income (c - d)	659	679	735	1,237	1,615
f) - deduct interest payments	181	183	204	344	489
g) - net profit	478	496	531	893	1,126

Annex 42

U. N. E. S.

Generating Capacity, Power Production,

Purchases and Losses, 1946-1954

	1946	1947	1948	1949	1950	1951	1952	1953	1954
Generating Capacity (1000 kw)	23.5	44.6	50.5	51.2	55	60.2	102.4	102.9	102.9
Peak load	79	84	91	96	101	117	128	140	151
Production (million kwh)	80	135	210	195	220	291	261	328	355
Purchases	252	259	210	221	271	264	333	302	339
Losses	113	118	116	110	129	147	139	137	141
Own use	4	5	6	6	6	6	6	7	17
Sales	215	271	298	300	357	402	449	486	536

Annex 43

U.N.E.S.
Power Sales 1946-54 and Forecasts 1955-64
(mill. kwh)

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Categories of consumers																			
Public Light	8,9	11,7	13,8	15,0	17,2	20,7	21,0	23,6	26,0	27,0	28,0	29,0	30,0	31,0	32,0	33,0	34,0	35,0	36,0
Private Light	40,7	51,3	57,2	54,5	63,7	70,0	75,2	81,7	89,4	93,0	96,0	99,0	102,0	105,0	108,0	110,0	112,0	114,0	116,0
Domestic	4,0	3,8	4,7	9,3	10,6	13,0	17,0	20,9	23,2	25,0	26,0	27,0	28,0	29,0	30,0	31,0	32,0	33,0	34,0
Industry																			
up to 30 kw 1/	65,2	82,6	89,0	81,0	93,6	100,3	113,5	130,3	145,6	153,0	160,0	167,0	174,0	180,0	186,0	191,0	196,0	200,0	204,0
over 30 kw	67,0	89,2	101,0	106,1	129,1	149,6	169,9	168,5	182,6	197,0	213,0	232,0	251,0	275,0	301,0	326,0	352,0	383,0	414,0
Electrochemical industry	5,9	9,5	11,9	14,9	17,4	21,2	20,4	31,0	35,4	40,0	45,0	50,0	56,0	62,0	69,0	76,0	83,0	90,0	99,0
Traction	2,5	3,4	3,9	5,0	6,3	7,3	7,7	8,0	8,5	9,0	10,0	11,0	12,0	13,0	14,0	15,0	16,0	17,0	18,0
Retailers	8,7	8,9	11,5	9,8	11,4	11,6	14,2	11,5	11,7	12,0	13,0	14,0	15,0	16,0	17,0	18,0	19,0	20,0	21,0
Other	11,9	11,5	5,0	5,6	8,0	8,3	10,5	10,3	14,0	18,0	23,0	28,0	33,0	39,0	45,0	51,0	57,0	63,0	70,0
Total Sales	214,8	271,9	298,0	301,2	357,3	402,0	449,4	485,6	536,4	574,0	614,0	657,0	701,0	750,0	802,0	850,0	901,0	955,0	1012,0

Note:
1/ Includes power used for irrigation, along the Adriatic coast.

Annex 44

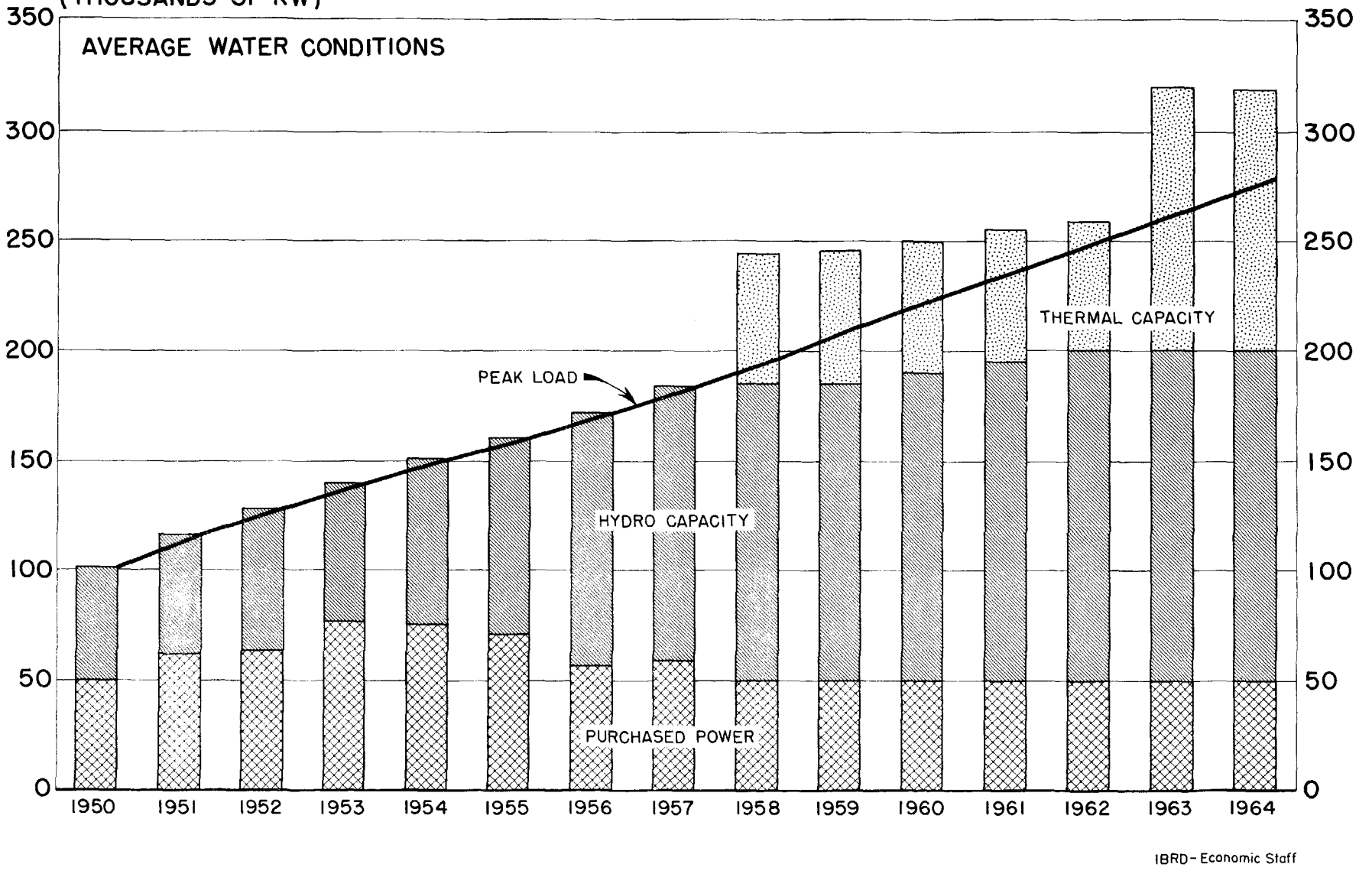
UNES

Investment Program 1955-60

(in millions of Lire)

	1955	1956	1957	1958	1959	1960
Part 1						
a) IBRD Projects						
Cap. Tronto Hydro Plant	600					
Cap. Castellano Hydro Plant	1,800	1,400	600			
Ascoli Hydro Plant	1,700	1,000				
Sub totals	4,100	2,400	600			
b) Other Projects						
Aso Hydro Plant	400					
Ponte Maglio Hydro Plant	520	300				
Venamartello Hydro Plant	960	700	400			
Transmission Lines	120	470	240			
Substations		580	440			
Distribution	1,000	1,000	1,000			
Sub totals	3,000	3,050	2,080			
Part 2						
Arquata Hydro Plant		700	1,000	700		
Thermal Plant		3,000	5,000	2,000		
San Lazzaro Hydro Plant			1,000	1,000	750	
Montalto Hydro Plant				500	700	500
Canal Constructions				1,600	1,950	1,700
Transmission Lines				240	350	250
Substations				-		-
Distribution				1,000	1,000	1,000
Sub totals		3,700	7,000	7,040	4,750	3,450
Totals	7,100	9,150	9,680	7,040	4,750	3,450

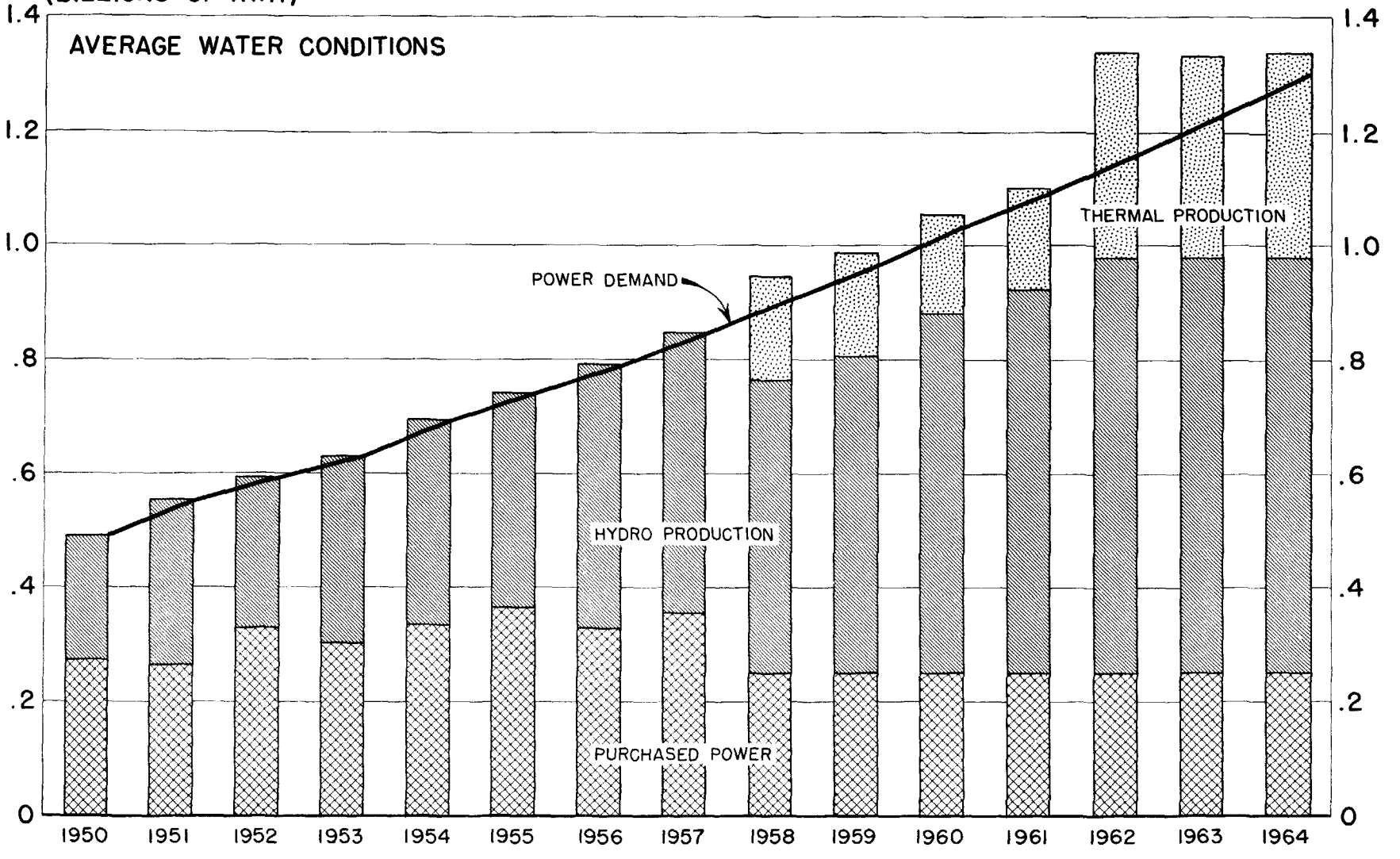
ITALY: UNES
AVAILABLE CAPACITY AND PEAK LOAD, 1950-1964



ANNEX 45

ITALY: UNES
AVAILABLE POWER AND DEMAND, 1950-1964

(BILLIONS OF KWH)



IBRD - Economic Staff

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ANNEX 46

UNES

CAPODIPONTE TRONTO HYDRO PLANT

Construction Cost Estimate

(in million Lire)

Barrage	233
Intake tunnel	900
Surge tank, penstock	240
Powerhouse	140
Machinery	450
Land	10
Engineering, supervision	79
Overhead, interest, contingencies	348
Total	2,400

Annex 48

UNES

CAPODIPONTE CASTELLANO HYDRO PLANT

Construction Cost Estimate

(in million Lire)

Temporary barrage	65
Dam	1,560
Spillway	105
Intake tunnel	275
Surge tank, penstock	420
Powerhouse 1/	60
Machinery	650
Roads and land	120
Engineering, supervision	130
Overhead, interest, contingencies	615
Total	4,000

1/ Extension to powerhouse built for Capodiponte Tronto plant.

UNES
ASCOLI HYDRO PLANT

Construction Cost Estimate

(in million Lire)

Barrage	40
Intake tunnel	780
Surge tank, penstock	405
Powerhouse	230
Machinery	670
Land	30
Engineering, supervision	86
Overhead, interest, contingencies	759
Total	3,000

UNES - PRO-FORMA BALANCE SHEET

Annex 50

as of December 31, 1957

(in millions of Lire)

Assets		
Fixed Assets	74,195.9	
less: Reserve for Depreciation	25,557.6	
Net Book Value		48,638.3
Construction in Progress (including advance payments)		11,400.-
Participation in affiliated companies		1,088.9
Due from affiliated companies (long term)		1,080.5
Net Current Assets (current assets less current liabilities)		953.9
Miscellaneous		406.-
		63,567.6
Capital, Reserves and Liabilities		
Share Capital (1)		23,520.-
Reserves and Surplus		
Legal, Statutory and Earned Surplus	2,176.3	
Capital Surplus due to Revaluation of Assets	11,688.3	13,864.6
Long Term Debts:		
Proposed IBRD Loan	5,625	
Other Debts	14,906.3	20,531.3
Pension Fund and other Provisions		5,651.7
		63,567.6

Note

1) on the assumption of sale of capital stock amounting to Lire 6.720 million during 1956 and 1957 and a further issue of bonus shares of Lire 2.800 million out of capital surplus due to revaluation of assets.

UNES - ESTIMATED INCOME STATEMENTS
(in millions of Lire)

	1955	1956	1957	1958	1959
Operating Revenues					
Sales of electrical energy	9,963	12,857	14,047	16,036	17,615
Connection contributions	700	700	700	700	700
Subsidies	285	235	250		
	10,948	13,792	14,997	16,736	18,315
Other revenues 1/	200	200	200	200	200
Total revenues	11,148	13,992	15,197	16,936	18,515
Cost of Operations					
Operation and maintenance 2/	6,214	6,945	7,447	8,290	8,700
Depreciation 3/	1,939	2,800	2,800	3,286	4,160
Taxes	870	1,210	1,410	1,450	1,605
	9,023	10,955	11,657	13,026	14,465
Net Income from Operations	2,125	3,037	3,540	3,910	4,050
deduct: Interest payments	899	963	1,431	1,701	1,629
Net profit	1,226	2,074	2,109	2,209	2,421

Notes:
1/ Consist mainly of dividends from affiliated Companies.
2/ Includes costs of purchased power.
3/ On basis of average depreciation rate of about 4% per annum of gross book value of fixed assets (written up cost).

UNES - FORECAST OF RECEIPTS AND EXPENDITURES
(in millions of Lire)

	1955	1956	1957	1958	1959
RECEIPTS					
1. Net Profit a/	1,226	2,074	2,109	2,209	2,421
2. Depreciation allowances	1,939	2,800	2,800	3,286	4,160
3. Receipts from operations (1 + 2)	3,165	4,874	4,909	5,495	6,581
4. Borrowing:					
a) Proposed I.B.R.D. loan (through Cassa)	3,280	1,920	425		
b) Loans already contracted	4,500				
c) Proposed other loans		2,200	3,000	4,000	
5. Proposed sale of Capital Stock		2,800	3,920		2,352
6. Total Receipts	10,945	11,794	12,254	9,495	8,933
EXPENDITURES					
7. Repayments of loans: (Principal)					
a) Proposed I.B.R.D. loan				204	216
b) Other Loans	356	426	381	887	917
	356	426	381	1,091	1,133
8. Capital Expenditures:					
a) I.B.R.D. Projects	4,100	2,400	600		
b) Other	3,000	6,750	9,080	7,040	4,750
	7,100	9,150	9,680	7,040	4,750
9. Reduction of Bank Debts	1,500	800			
10. Dividend b/	1,120	1,568	1,889	1,880	2,080
11. Other Payments	9	12	14	14	16
12. Total Expenditures	10,085	11,956	11,955	10,025	7,979
13. Cash surplus or deficit (-) (annual)	860	(-) 162	299	(-) 530	954
14. Cash surplus or deficit (cumulative)	860	698	997	467	1,421

a/ After financial charges.
b/ On the assumption of an annual dividend of 8%.