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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

APPRAISAL
OF
ITALIAN
INDUSTRIAL, IRRIGATION AND POWER
PROJECTS

October 3, 1956

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

APPRAISAL
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INDUSTRIAL, IRRIGATION AND POWER

PROJECTS

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PROJECTS

I. SUMMARY AND CONCLUSIONS

1. In connection with the loan under consideration, the Government of Italy submitted a number of projects in three categories: industry, irrigation, and electric power. All these projects were either an integral part of the development program for the south of Italy being carried out by the Cassa per il Mezzogiorno or directly related to the objectives of that program.

2. These projects have been investigated and 15 of them have been selected as the basis for a Bank loan of about $75 million equivalent. Included in this total is an amount allocated for the use of the Cassa to obtain technical services relating to the Cassa's program. The projects selected, and the amount of the proposed loan allocated to each of them, are as follows:

			$ Million Equivalent
Industry			
Forino	(Cannery)	0.920	
Novilegni	(Hardboard)	0.903	
Chimica del Tirreno	(Fertilizer)	2.560	
Vetreria di Latina	(Pressed Glass)	0.640	
Saint Gobain	(Plate and Pressed Glass)	4.000	
Viberti	(Truck and Bus Bodies)	1.340	
Fiat	(Automobile Assembly)	4.800	
A.B.C.D.	(Polyethylene)	4.960	
Cementerie di Augusta	(Cement)	1.440	
Cementerie di Sardegna	(Cement)	2.400	
	Total Industry		23.963
Irrigation			
Flumendosa Project			25.000
Electric Power			
SIAL (Subsidiary of SRE)		8.2	
TIFEO (Subsidiary of SGES)		10.5	
SME		6.5	
	Total Power		25.2
Technical Services Project			
Technical Services relating to the Cassa Program			0.465
	Total		74.628

3. The selected projects have been investigated in the field by Bank staff members. They are all designed to meet established need of high economic priority. The Flumendosa irrigation project is an integral part of the Cassa program in Sardinia and is the only large single opportunity to increase agricultural production on the island. The three power projects, two on the mainland and one in Sicily, will all be needed to meet the growing demand for electricity which is evidence of the success of the Cassa's program to foster the economic development of southern Italy. The various industrial plants, of which seven are on the mainland, two in Sicily and one in Sardinia, will complement the projects in the Cassa program proper, which is primarily concerned with large public works, in the fields of agriculture, transportation and construction.

4. The projects are all well planned. The estimates of their cost are reasonable. Their engineering is in good hands. Their management is sound. Satisfactory arrangements have been made to provide the funds which will be needed in addition to the proposed Bank loan. The financial structure of each of the industrial and electric power companies concerned is sound.

5. It is proposed that the loan be made to the Cassa, with the guarantee of the Italian Government. The part of the proceeds allocated to the Flumendosa irrigation project would be used by the Cassa to defray the bulk of its expenditures on this project in the years 1956, 1957 and 1958. As far as the electric power projects are concerned, the Cassa would relend the amounts allocated to the three power companies concerned. These companies would undertake various obligations to carry out the projects, supply information about progress, etc., in Project Agreements with the Bank. The amounts allocated to the 10 industrial projects would be re-lent by the Cassa to the appropriate regional institute (IRFIS, ISVEIMER or CIS) which would conclude the loan agreement with the company concerned. The terms and conditions of these loans to the individual industrial companies would be subject to Bank approval. In the case of the industrial projects, the regional institutes would bear the normal commercial risk and administer the industrial loan funds for the Cassa. Neither the power companies nor the industrial companies would bear a foreign exchange risk. This is nominally on the Cassa but in the last analysis would be borne by the Italian Government.

6. It has been assumed in appraising the selected projects that the loans to the power companies would have a term of 20 years with a grace period of $2\frac{1}{2}$ to $3\frac{1}{2}$ years, and that the terms of the loans to the industrial companies would vary from 7 to 13 years, with grace periods varying from 2 to 3 years. On these assumptions, reasonable forecasts show that the companies concerned should earn a satisfactory return on their investments after paying interest on their loans, and that their operations should generate sufficient funds to meet repayment installments of debt without impairing their liquidity position. As far as the irrigation project is concerned, the increase in national income which may be expected to result from the project bears a satisfactory relation to the total investment. The benefits to farmers should greatly exceed the service of the investments which they will have to make in order to obtain full benefit from the public works, and their contributions to the cost of operating the irrigation system. The increase in Government revenues which may reasonably be expected as the result of increased agricultural production

in the area should be of the order of 3% per annum on the amount of public investment. This takes no account of Government revenues from the movement and processing of the agricultural products, or of those arising from induced development in non-agricultural fields.

7. In deciding the term and grace period of the proposed loan to the Cassa, account has been taken of these forecasts.

8. The 15 projects, which are individually appraised in the body of this report, are a suitable basis for a Bank loan of about $75 million equivalent to the Cassa.

APPRAISAL OF ITALIAN INDUSTRIAL, IRRIGATION AND POWER PROJECTS

II. INTRODUCTION

9. In September 1955, the Italian Government asked the Bank for 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 three loans; two in 1951 and 1953 for $10 million each, and one in 1955 for $70 million.

10. The Bank informed the Italian Government that it was agreeable in principle to consider a loan request favorably and asked that a list of projects which might be used as a basis for the proposed loan be submitted.

11. Preliminary data on the projects were received in Washington in January and February of 1956. These data related to an irrigation project with a total estimated cost of about $85 million equivalent; 5 power programs with an estimated cost of $83 million equivalent; and 19 industrial projects with an estimated cost of $74 million equivalent.

12. The preliminary data were examined and a tentative selection was made of those which appeared most suitable for Bank financing. These projects, plus some submitted during the field studies, were investigated and analyzed in more detail in the field and a final selection was made consisting of 10 industrial projects, one irrigation project and three power projects.

13. The 10 industrial projects are:

Forino	(Cannery)
Novilegni	(Hardboard)
Chimica del Tirreno	(Fertilizer)
Vetreria di Latina	(Pressed Glass)
Saint Gobain	(Plate and Pressed Glass)
Viberti	(Truck and Bus Bodies)
Fiat	(Automobile Assembly)
A.B.C.D.	(Polyethylene)
Cementerie di Augusta	(Cement)
Cementerie di Sardegna	(Cement)

14. The irrigation project is the Flumendosa scheme in Sardinia.

15. The three power projects are those of:

Societa Romana di Elettricita (SRE)
Societa Generale Della Sicilia (SGES)
Societa Meridionale di Elettricita (SME)

16. In addition, an amount of $465,000 equivalent has been included to allow the Cassa to obtain technical services on problems relating to the Cassa's program.

17. The 15 projects are described and appraised in the following sections of this report.

III. INDUSTRIAL PROJECTS

A. General

18. Loan applications for 19 industrial projects, totalling about $36 million equivalent, and with a total cost estimated at $74 million equivalent, were submitted to the Bank by the Cassa. The applications had been received and screened by the regional institutes (ISVEIMER on the mainland, IRFIS in Sicily, and CIS in Sardinia) which are to be directly responsible for making the loans. The funds required for the loans will be made available to the institutes by the Cassa out of the loan from the Bank. The Cassa takes the foreign exchange risk but the institutes take the normal commercial risks and administer the funds for the Cassa.

19. Before the submission of the loan applications, the institutes had examined both the projects and the credit standing of their promoters. The submission of an application to the Bank was, in fact, an indication that the appropriate institute had found the project sound according to its standards.

20. Of the 19 applications submitted, 13 projects were re-examined in detail by the Bank. In most cases involving expansion and modernization, Bank representatives visited the existing plant; visits were made also to the sites of a number of proposed plants. Meetings were held to discuss the projects with the promoting groups together with representatives of the Cassa and of the appropriate regional institutes. These meetings enabled the Bank to obtain additional information where necessary and also to form a judgment as to the capabilities of the promoting group. The most important factors taken into account in deciding whether to recommend a project for financing were the benefits that might be expected to accrue to the Italian economy, the financial soundness, and the state of preparation.

21. Of the 13 projects examined in detail, 10 were selected for Bank financing, in the amount of about $24 million equivalent. Their total estimated cost is about $51 million equivalent.

22. In Loan 117 IT only 7 industrial projects, totalling $18.41 million equivalent, were selected for Bank financing, although a larger number of applications had been submitted (28 applications totalling about $52 million equivalent, compared with the 19 applications totalling about $36 million equivalent submitted in connection with the present loan). The fact that the applications submitted this year included a larger number of projects suitable for Bank financing than those submitted a year ago is an indication of the economic expansion that has taken place in southern Italy in that short period and a measure of the success of the Cassa program.

23. The character of the 10 industrial projects selected for financing under the present loan offers further evidence of this progress. The projects are well diversified. They include a fruit and vegetable cannery, a forest products processing plant, two flat glass plants, two motor vehicle plants, a fertilizer plant, a petrochemical plastics plant, and two cement plants.

Three of the projects will be the first branches in southern Italy of large, well-established concerns that have been operating in northern Italy for a long time.

24. The plants will have competent and experienced managements and, with their modern equipment, should be relatively low cost producers. When operating at a normal rate, they are expected to have total annual sales estimated at Lit. 48.4 billion ($77.5 million equivalent). Their potential foreign exchange earnings and/or savings are estimated at Lit. 6.0 billion ($9.6 million equivalent). They will also make possible an increase in domestic consumption of certain items (e.g. cement, fertilizer, polyethylene) the sales of which would probably not increase if the items had to be imported.

25. When in normal operation, the projects will provide employment for about 3,100 persons in the plants and another 1,000 persons in directly connected employment (fruit and vegetable growing and timber cutting).

26. The projects selected are the following:

	Estimated Total Cost (Lire Million)	Proposed Loan	
		Lire Million	$ Million Equivalent
Forino S.p.A. (Cannery)	1,150	575	.920
Novilegni S.p.A. (Hardboard)	1,410	564	.903
Chimica del Tirreno S.p.A. (Fertilizer)	3,200	1,600	2.560
Vetreria di Latina S.p.A. (Pressed Glass)	740	400	.640
Saint Gobain (Plate and Pressed Glass)	5,450	2,500	4.000
Officine Viberti S.p.A. (Truck and Bus Bodies)	1,974	840	1.340
Fiat S.p.A. (Automobiles)	7,000	3,000	4.800
A.B.C.D. S.p.A. (Polyethylene)	6,581	3,100	4.960
Cementerie di Augusta (Cement)	1,800	900	1.440
Cementerie di Sardegna (Cement)	2,680	1,500	2.400
	31,985	14,979	23.963

27. Except in cases where the individual project appraisals contain specific statements to the contrary, the following observations apply to all projects:

(a) The projects have been carefully planned and are well engineered. Their construction will be supervised either by parent companies or consulting firms. There is every reason to expect good construction and proper installation of equipment;

(b) The construction schedules are realistic;

(c) The project cost estimates are reasonable and include adequate allowances for contingencies, interest during construction, and working capital;

(d) The top rate of production assumed is a "normal" and not a maximum rate; the normal rate allows sufficient down time for repairs and can be maintained year after year; in every project, it is possible to operate at a rate higher than the normal rate for periods varying from industry to industry;

(e) The estimates of sales volumes underlying the financial forecasts are realistic in the light of the market analyses;

(f) The estimates of production costs and prices are reasonable in view of present prices; the estimates of sales prices make allowance for the possibility of price declines in response to the prospective increase in domestic supply;

(g) Depreciation allowances have been conservatively calculated;

(h) The credit standing of all the promoters has been found satisfactory by the appropriate regional institutes.

28. The need for establishing and maintaining a sound financial position has been discussed with the management of every company. Agreements have been reached on the amount of share capital and shareholders' advances, the treatment of shareholders' advances, the ratio of long-term debt to equity, the limitation of dividend payments, and the maintenance of adequate working capital. These agreements, the terms of which vary from company to company, have been embodied in letters, copies of which are included in the annexes.

29. A minimum equity-debt ratio of about 1:1 has been required for the projects. In most cases, the ratio of equity to debt is even higher and in no case does the debt amount to more than 55% of the total estimated cost, including working capital. The required ratios are conservative and more favorable than is usual in Italian practice.

30. 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.

31. For purposes of calculation, an interest rate of 5½% has been assumed on the proposed loans from Bank funds. The various terms suggested for the loans are based on the probable economic life of the equipment and on the expected generation of funds. The grace periods suggested for the loans correspond approximately with the construction period. The terms on which the loans will be made by the several regional institutes (ISVEIMER, IRFIS or CIS) may differ in some cases from those suggested, but will in all cases be subject to Bank approval.

32. The financial forecasts make no allowance for the payment of dividends. Funds are expected to be available for dividend payments in every case and, subject to a provision in every agreement binding the borrower to maintain current ratios ranging from 1.5:1 to 2:1, dividends are expected to be paid out. However, management policy will determine how much of the available funds will be paid out in dividends and how much will be used to increase working capital, to retire debt, to accumulate reserves, or to make additional capital investments. The earnings expected to be available for these purposes are shown as accumulated surplus; a corresponding entry is shown as "additional assets".

B. Features of the Projects

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

34. The Forino cannery project will treble the capacity of a well-established fruit and vegetable processing plant which has already more than doubled its output since 1954. The strong foreign demand for Italian tomato products, in which this plant specializes, justifies a further expansion of capacity. Although the plant exports about half its output, it cannot now fill all its foreign orders. Increased output should enable it to increase its annual foreign exchange earnings to about $1 million equivalent.

35. The Novilegni hardboard plant will produce about 18,000 tons a year of hardboard from wood wastes and local wood no longer in demand as a fuel. The product can be produced at a cost estimated at about 35% below the wholesale price of similar imported products. It should find a ready market and make possible annual foreign exchange savings of about $1 million equivalent.

36. The Chimica del Tirreno project will produce about 75,000 tons of ammoniated superphosphate (6,000 tons of nitrogen and 12,000 tons of available phosphate). Consumption in its market area has been increasing by over 15% a year and amounted to 44,000 tons of nitrogen and 59,000 tons of available phosphate in 1954-1955. Even after the project is completed, production in its market area will amount to only 12,000 tons of nitrogen and 55,000 tons of phosphate. The plant should have no difficulty in selling its output and should save the farmers the cost of transportation from more distant plants. It will add only 2% to Italy's current production of nitrogen and 3% to its current phosphate production, compared with annual increases of 20% and 13% respectively in consumption of these fertilizers in Italy.

37. The Vetreria di Latina and Saint Gobain projects will each produce about one million square meters per year of pressed glass. Saint Gobain will also produce about 650,000 square meters per year of plate glass. Their proposed output represents about 55% of current Italian production of each type of glass. However, rapidly rising Italian demand and an absence of any increase in capacity to produce these items has resulted in a very large increase in imports. These now meet 28% of Italian requirements for pressed glass and close to 40% of requirements for plate glass. Even if the increase in demand slows up, there should be a market for the output of both plants on their completion, with an annual saving in foreign exchange of about $1.5 million equivalent.

38. The Saint Gobain plant will be the first branch in southern Italy of a large glass producer which now operates a plant in northern Italy. The location of a new plant in southern Italy by such an important company indicates the growing attractiveness of that area to industry.

39. This fact is even more strikingly reflected in the two projects in the automotive industry, the Viberti Truck and Trailer project and the Fiat Automotive Assembly project. Viberti is the leading Italian producer of truck and bus bodies and trailers; its two northern Italian plants account for about one-third of the total Italian output of bodies and one-half of its output of trailers. The proposed plant will increase the company's output by about one-quarter and will enable it to meet the large and expanding demand south of Rome.

40. The Fiat company which accounts for over 80% of Italy's output of motor vehicles has until now confined its operations to northern Italy. The proposed plant will add capacity for about 30,000 vehicles a year, about the amount by which Fiat has been expanding each year in the past few years. The new plant is well located to meet not only the demand in southern Italy but the foreign demand. In 1955, Fiat exported 28% of its output.

41. The A.B.C.D. Polyethylene and Special Cements project is an expansion of a plant now producing cement and various bituminous-base building materials. The project consists of a 5,000-ton per year polyethylene plant including a 700-ton per day crude oil stripping plant which will produce light fractions for the polyethylene plant and fuel oil for the Company's own use and facilities for the production of 30,000 tons per year of special cement. Polyethylene is a new product with unique properties, which has found a rising demand wherever it has been introduced. Italy's ability to enter the new field of petrochemicals is greatly facilitated by the availability of crude oil in Sicily where the plant will be located.

42. Two cement projects are included in the loan, the Cementerie di Augusta project in Augusta, Sicily, and the Cementerie di Sardegna project near Sassari, Sardinia. The first project involves an increase in the capacity of an existing cement plant from 130,000 to 300,000 tons per year. The second project is a new plant with an initial capacity of about 100,000 tons per year.

43. The heavy public works program on both the islands and the economic expansion that is in part a response to it justifies both projects. Sicilian cement consumption has more than doubled in the past four years and amounted to close to 800,000 tons in 1955. Although production on the island will reach 1,200,000 tons by 1959, it will not exceed demand, even if demand increases only half as fast as it has in the last few years.

44. Sardinian consumption of cement amounted to 283,000 tons in 1955 and exceeds the output of the one plant on the island. The capacity of that plant cannot be expanded further. Moreover, it is located at the extreme southern end of the island while demand is also growing at the northern end of the island. Since all the raw materials required for cement making are available in northern Sardinia, the construction of a plant there is economically justified. It will save the heavy transportation costs from the mainland and from the one plant now operating in Sardinia.

C. Conclusion

45. 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 that follow immediately.

D. Individual Project Appraisals

1. Forino

Borrower

46. The proposed borrower, Forino S.p.A., a company constituted on January 9, 1954, plans to modernize and expand a fruit and vegetable canning plant at Nocera Inferiore, near Naples.

47. The shareholders of the Company are two large farming companies, the Societa Agricola Carboidrati and the Societa Azionisti per le Bonifiche, each of which reports a net worth of over Lit. 1 billion, and two local landowners with substantial means, Giuseppe Ajelli and Antonio Conforti.

48. The cost of the project is estimated at Lit. 1.15 billion ($1.84 million) including interest during construction and working capital; it is proposed that Lit. 575 million ($0.92 million) should be financed from IBRD funds.

Description of the Project

49. In 1954, the present shareholders purchased the name and fixed assets of an old, well-known cannery which had an annual production of 600-700 tons of tomato paste and 50-60,000 cases of canned whole tomatoes. During the first year of operations, the new owners increased production to approximately 1,260 tons of tomato paste, 97,000 cases of canned tomatoes, 3,500 cases of tomato juice, 400 tons of canned vegetables and 400 tons of canned fruits. The Company plans to modernize and further enlarge the plant to permit an annual production of 3,300-4,400 tons of tomato paste, 150,000-200,000 cases of canned whole tomatoes, 20,000-25,000 cases of tomato juice, 750-1,000 tons of peas and green beans, and 800-1,000 tons of fruits.

50. The plant is located in Nocera Inferiore which has adequate power, water, and transport facilities. A turbine and generating facilities sufficient for the power needs of the plant are to be installed to make the best use of the large amount of steam used in processing. The bulk of the vegetables will be grown by the two associated agricultural companies. The remainder will be purchased from growers in the surrounding area, which is an important vegetable and fruit growing district. Cans will be manufactured in the plant from both Italian and foreign tin plate. Imported tin plate and boxes are used for export shipments so that foreign importers avoid payment of import duties on the packaging materials.

51. Upon completion, the plant will be the most modern in Italy. It will rank fifth in size and account for about 6% of the total production of tomato products.

Present Status

52. Preparation of designs and selection of the equipment have been completed. About Lit. 316 million has already been spent on construction work and the installation of equipment. Estimates of costs for the project are considered reasonable. They include a contingency allowance of 5% for the fixed assets which remain to be purchased. It is estimated that the project can be completed within 18 months after financing is arranged.

Management

53. The experienced operating personnel of the old Company were retained when the new owners took over the plant. Management personnel from the shareholding group are capable and experienced in vegetable production and commercial affairs.

Financing

54. It is proposed that the project be financed from the following sources:

	(million lire)
Share Capital	155
Shareholders' Advances	365
Depreciation Accruals (partial)	55
IBRD Loan	575
	1,150

55. Shown below are the estimated balance sheets of the Company at the end of the present fiscal year, after the project is completed, and after three years of expanded operations:

	April 30 1956	April 30 1958	April 30 1961
	(Million Lire)		
Assets			
Fixed Assets	461	995	995
Less Depreciation Allowance	28	86	221
Net Fixed Assets	433	909	774
Net Current Assets	149	300	300
"Additional Assets"	-	107	441
Total	582	1,316	1,515
Liabilities			
Share Capital	200	300	300
Shareholders' Advances	365	365	365
Surplus	17	76	460
IBRD Loan	-	575	390
Total	582	1,316	1,515

56. The value of the fixed assets as of April 30, 1956, includes the Lit. 145 million paid for the old plant (estimated by ISVEIMER to represent half its replacement value) and the Lit. 316 million already spent on the expansion and modernization project.

57. Because of the seasonal nature of the business, current liabilities may reach an annual peak of about Lit. 450 million. By providing that net working capital shall not fall below Lit. 300 million, assurance is given that even at the height of the canning season, when demand for working capital reaches its peak, the current ratio will not fall below 1.6:1, which seems an adequate ratio.

58. Financial forecasts of the Company are given in Annex 2. A letter setting forth the financial conditions agreed to by the Company is attached as Annex 3.

Markets

59. The output of the plant will be sold on both the domestic and export markets. The original firm name was well established in both markets, and in the short period the new owners have been operating the plant, they have been able to increase both export and local sales.

60. Since exports account for about 50% of the Company's total sales, its prospects are dependent on the export prospects of the Italian fruit and vegetable canning industry. Data given below show that Italian exports of canned fruit and vegetables have increased considerably since the war. Further expansion seems probable. The United States, Canada, and the United Kingdom are the principal markets for canned tomato products, which bulk large in the total. Demand for whole tomatoes continues strong in the United States, while the United Kingdom offers an expanding market for all types of canned vegetables.

Exports of Italian Canned Vegetables
(Tons)

	Whole Tomatoes	Tomato Paste	Other Vegetables
1949	31,610	20,867	Na
1950	105,144	32,807	Na
1951	98,007	36,628	Na
1952	59,077	43,449	Na
1953	73,714	39,721	Na
1954	117,573	68,797	8,887
1955	113,546	70,932	9,727

61. The Company has shared in the general expansion of export sales. At present, it is unable to fill all its foreign orders. So long as it maintains its present high quality, it should have no difficulty in increasing its exports along with the industry. Export prices are at least equal to domestic prices. In the case of tomato paste they are higher.

Earnings and Debt Service Coverage

62. The enlarged plant should reach full production in the second year after completion of the project. As the financial forecasts given in Annex 2 indicate, it is estimated that sales should then reach about Lit. 1.5 billion per year, and net income Lit. 158 million, a return of 24% on share capital and shareholders' advances. This estimate is reasonably conservative. It assumes prices somewhat below the present level and an operating rate of about 92% of normal capacity. Earnings before interest and depreciation, estimated on this basis, would amount to about 2.6 times debt service. The actual output and earnings of a cannery may of course vary from year to year, depending upon climatic and crop conditions. But even if the operating rate dropped to 73% of capacity, as in the forecast for 1958/59, the Company's net income would represent a return of about 10% on share capital and shareholders' advances, while net earnings before interest and depreciation would amount to 1.6 times debt service.

Economic Justification

63. The Company will have net foreign exchange earnings of about $1.0 million equivalent annually if export sales reach the expected level. The project will provide permanent employment for about 80 persons, and employment for an additional 700 workers during the six-month canning season.

Conclusion and Recommendations

64. The project is sound and is recommended as the basis for a loan in the amount of Lit. 575 million ($0.92 million) including interest during construction. The term of the loan could be 10 years including a two-year grace period.

2. Novilegni

Borrower

65. The proposed borrower, Novilegni S.p.A., a privately owned firm established in 1954, plans to erect a hardboard plant near Avezzano. The cost of the project is estimated at Lit. 1.41 billion ($2.256 million), including interest during construction and working capital; it is proposed that Lit. 564 million ($902,400) should be financed from IBRD funds. Present share capital is held by the Sassoon Banking Co., London (25%); Societa Immobiliare Nuovo Centro, Bergamo (18.75%); Dr. Piero Conti, Bergamo (18.75%); and the remainder (37.5%) by seven individuals in Rome.

Description of the Project

66. The plant would produce an agglomerated hardboard, using a continuous process. For raw materials, it would use saw mill or plywood mill wastes and beechwood, formerly used for fuel in the area. After chipping and preparation, these woods would be mixed with resins and pressed and cured in a continuous press (the Bartrev press developed in Great Britain). The continuous process is new, and to date only one Bartrev press has been built and operated. The Italian plant would be the second to use the process, but it is reported that a plant has been ordered for Sweden.

67. Wood is readily available in the Avezzano area. The resins are available from Italian chemical manufacturers. Adequate power and water supplies are available locally and the plant is conveniently located with respect to rail and road transport.

68. The plant can produce hardboard sheets varying from 4 to 20 millimeters in thickness and from 0.6 to 0.75 in density. Based upon an average thickness of 12.5 millimeters and a density of 0.7, the average annual production should amount to 18,000 tons or about 2.0 million square meters.

Present Status

69. Orders have been placed for the major equipment items, with expenditures to date of Lit. 113 million. It is expected that the plant can be completed about one year after financing has been arranged. Construction of the plant is to be on a "turn-key" basis by the British manufacturer of the press, the major item of equipment.

Management

70. One engineer from the British firm will remain at the plant for one year. In addition, two Italian engineers are at present being trained in Great Britain on similar equipment. Several members of the promoting group have interests and experience in the woodworking industries.

Financing

71. It is proposed that the total cost of the project, Lit. 1,410 million, should be financed as follows: share capital and shareholders' advances, Lit. 846 million, and the balance, Lit. 564 million, from the proposed IBRD loan. The estimated balance sheets when the plant is completed, and after three years of operation, are shown below (in million lire):

	Plant Completion	After 3 years' Operations		Plant Completion	After 3 years' Operations
Fixed Assets	1,122	1,122	Share Capital	250	250
Less Depreciation	-	330	Shareholders' Advances	596	596
Net Fixed Assets	1,122	792	Surplus	-	145
Net Current Assets	260	260	IBRD Loan	564	441
"Additional Assets"	28	380			
	1,410	1,432		1,410	1,432

72. Financial forecasts are given in Annex 4. A letter setting forth the financial conditions agreed to by the Company is given in Annex 5.

Markets

73. The prospective market for a particular hardboard is difficult to forecast. Agglomerated hardboards (made from wood particles bound together with resins) differ in characteristics and properties depending upon the type of raw materials and the manufacturing process employed. The product of each process normally finds certain distinct uses because of its special properties, and the products of several different processes may be competitive only within a narrow range of applications.

74. Masonite-type hardboards have been manufactured in Italy for several years, but the Novilegni product will not compete with this type of material. Agglomerated sheets similar to those to be produced by Novilegni have been produced in Italy only in the last five years and only two companies produce them now. Both plants are operating at full capacity, and have an estimated annual output of 22,000 to 25,000 tons. In addition, imports of similar products have increased from 392 cubic meters in 1950 to 9,236 cubic meters in 1954 and 9,385 cubic meters (about 6,500 tons) in 1955. Thus the market for this product has developed quite rapidly.

75. Sheets produced by the Novilegni process have several advantages over those produced by processes currently in use: (1) the sheets can be of any length, the only limits being those set by transport facilities; (2) the sheets can be veneered with wood, metal or paper in the continuous press; and (3) furniture joints may be cut in the sheets.

76. The third feature is perhaps the outstanding feature of the Novilegni product. A Novilegni sheet can be fabricated as though it were sawn lumber, without the use of a supporting framework. It is expected that the product will find its major use in furniture manufacture.

77. One of the Novilegni shareholders, a large manufacturer of furniture, has indicated a willingness to buy about one third of the output of the plant. The Italian railroads have also expressed an interest in the product, because of the length of panels which can be produced.

78. Production costs are low. Operating at capacity, the Company could make a good profit selling at a price 35% below the wholesale market price for similar boards. This would be well below the cif price for equivalent imports on which a duty of 22.5% is levied. With this cost advantage, the Company should have little difficulty in developing a market for its full output within one or two years.

79. There is an element of risk in the project. Its success depends upon the Company's ability to market a new product in the quantities and at near the prices assumed in the estimates. Although the management is aware of the problems involved in introducing a new product on the market, and is making special efforts to inform possible users of the unique properties of the product, its success cannot be taken for granted. Nevertheless, in view of the low cost of production and the special properties of the product, we recommend acceptance of the project by the Bank.

Earnings Prospects and Debt Service Coverage

80. The Company believes that it may take two years to develop a market, but that the plant should reach normal capacity output in the third year of operations. For that year, it forecasts net profits of Lit. 129 million on sales of Lit. 1,170 million. Such a profit would represent a return of 15.2% on share capital plus shareholders' advances.

81. Estimated earnings before depreciation or interest when the plant is operating at normal capacity should provide a coverage of 3.8 times the amount required for servicing the proposed IBRD loan. The Company could withstand a drop of about 10% in estimated revenues together with an increase of 10% in estimated costs and still maintain service of the IBRD loan.

82. In spite of the fact that the plant will be using a new process, the major items in production cost, such as wood, resin, power and fuel, can be estimated with a fair degree of reliability. We believe, therefore, that the cost estimates are realistic.

Economic Justification

83. The project would permit the utilization of plywood and sawmill wastes and of the beechwood in the area which used to be cut for firewood but is now being gradually displaced as a domestic fuel by liquid gas. It would provide employment for about 150 persons in the plant and about 250 more in the forests. In addition, it should make possible foreign exchange savings of about $1 million equivalent a year by replacing imports of similar materials.

Conclusion and Recommendations

84. If the proposed plant can sell in the quantities and at close to the prices assumed in the financial forecasts, its earnings should be good. These assumptions seem entirely reasonable. Subject to the uncertainties connected with the marketing of a new product, the project is sound and could be the basis for a loan in the amount of Lit. 564 million ($902,400) including interest during construction. The term of the loan could be 12 years including a two-year grace period.

3. Chimica del Tirreno

Borrower

85. The proposed borrower would be Chimica del Tirreno S.p.A., incorporated in 1954, which plans to build and operate a chemical fertilizer plant at Punta Fiume, near Formia, on the coast about half way between Rome and Naples. The cost of the project is estimated at Lit. 3.2 billion ($5.12 million) including interest during construction and working capital. It is proposed that Lit. 1.6 billion ($2.56 million) should be financed from IBRD funds. The Company has 21 shareholders, none of whom hold more than 20% of the stock.

Description of the Project

86. The plant would have a normal annual capacity of 75,000 tons of ammoniated superphosphate, containing 16% available phosphate (12,000 tons P_2O_5) and 8% nitrogen (6,000 tons N), with facilities for the production of its requirements of ammonia and sulfuric acid using conventional processes. Sulfuric acid production will exceed requirements by about 4,500 tons, and this amount would be available for sale on the open market. Even though the ammonia plant is relatively small, production costs will be lower than the price on the open market. Sulphur fines for sulfuric acid would come from Sicily, coal for ammonia production from Sardinia, while the phosphate rock would be imported from North Africa. The plant would be located on the water front for convenience in receiving raw materials. The site also has access to railway facilities and highways, and power and water are available.

87. In addition to the conventional plant, the Company plans to build, entirely with its own funds, a 20-ton per day pilot plant to test a process, developed by one of the shareholders, for making a complex fertilizer from a local potash-bearing material, Leucite. The organizers of the Company believe that they will be able to develop a process to produce a potassium-bearing fertilizer at a lower cost than is now possible with imported potash.

88. If the experiments prove successful, the plant now proposed for financing could be modified, with a small additional investment, to produce complex fertilizers. Since complex fertilizers bring higher prices per unit of contained nutrient than simple fertilizers, such a change in the character of the product would enhance the earning potential of the plant.

Present Status

89. The site has been procured and preliminary planning of the project has been completed. It is estimated that the preparation of final construction drawings and construction of the plant will require about two years from the time the financing is arranged.

Management

90. The directors of the Company are businessmen with varied commercial and industrial experience. Two of the shareholders have had extensive experience in building and operating chemical plants.

Financing

91. It is proposed that Lit. 1.6 billion, half the total cost of the project, should be financed from share capital and shareholders' advances, and the other half from IBRD funds. The estimated balance sheets when the project is completed and after three years of operations are shown below (million lire):

	End of Construction	After 3 Years' Operations		End of Construction	After 3 Years' Operations
Fixed Assets	2,830	2,830	Share Capital	800	800
Less Depreciation	-	840	Shareholders'		
Net Fixed Assets	2,830	1,990	Advances	830	830
Net Current Assets	400	400	Surplus	-	1,111
"Additional Assets"	-	1,558	IBRD Loan	1,600	1,207
	3,230	3,948		3,230	3,948

92. Financial forecasts of the Company are given in Annex 6 and a letter of financial conditions agreed to by the Company is given in Annex 7.

Markets

93. The proposed plant will serve a market area within a 75 mile radius, including a large part of the three regions of Campania, Abruzzi e Molise, and Lazio. Consumption of fertilizer in these regions has been increasing by about 16% a year in the case of nitrogen and 19% a year in the case of phosphates, and in 1954-1955 amounted to 44,000 tons of available nitrogen and 59,000 tons of available phosphate.

94. The output of the seven fertilizer plants already operating in the area together with that of the proposed Chimica del Tirreno plant would be only 12,000 tons of available nitrogen and 55,000 tons of available phosphates. This is substantially below consumption in 1954-1955. Since nitrogen consumption has been increasing by about 5,000 tons or 18% a year and phosphate consumption about 8,000 tons or 19% a year during the past few years, consumption will undoubtedly be even higher by the time the plant is finished.

95. In view of the probable local deficiency, the proposed plant should have little difficulty in marketing its output. Because fertilizer is a relatively heavy and low cost item, the cost of transportation over a long distance is high compared to the factory price, and farmers have a strong incentive to buy from a nearby plant.

96. In Italy as a whole, production and consumption of both nitrogenous and phosphatic fertilizers have been roughly in balance in recent years. During the past three years, consumption of nitrogen in fertilizer has increased by about 20% and consumption of phosphate by about 13% per year. The proposed project will add only a fraction of these amounts: its output will represent about 2% of Italy's current production of nitrogen and about 3% of its current phosphate production.

97. The Company should have no difficulty in disposing of the 4,500 tons of sulfuric acid in excess of its requirements for fertilizer manufacture, which it will attempt to sell on the open market. That quantity represents a very small fraction of the 3 million tons currently produced in Italy. Italian demand for sulfuric acid has risen so rapidly that in spite of an increase in production from 2.3 million tons in 1951, imports have been rising. At present, according to information obtained by the Cassa, supplies are short and the market for sulfuric acid is good.

Earnings Prospects and Debt Service Coverage

98. Conservative estimates of Company operating costs and revenues indicat that the project should produce a net profit of about Lit. 500 million per year on sales of Lit. 2.3 billion as soon as the plant is operating at full normal capacity. This would represent a return of about 30% per year on share capital and shareholders' advances. Revenues have been calculated at current prices and there is no indication that these will be reduced in the near future.

99. Annual earnings before interest or depreciation, when the plant is operating at a normal rate, should provide a coverage of about 4 times the amount required to service the IBRD loan. On the basis of these estimates, the Company could withstand a drop of about 16% in revenues and a simultaneous increase of about 16% in costs and still maintain service on the IBRD loan.

Economic Justification

100. As a result of large scale irrigation and reclamation projects as well as improved farming practices, the consumption of chemical fertilizers in the three regions to be served by this project is increasing rapidly. As present local production cannot meet growing demand, it is necessary to bring fertilizer over long distances, involving total transportation costs of Lit. 3,000 to 5,000 per ton. This project will make fertilizer available to farmers in the area at a saving of Lit. 2,000 to 3,000 per ton and thus encourage its wider use. It will add to Italian fertilizer production about one-quarter of the amount by which Italian consumption increases each year, and to that extent help to meet demand without an increase in imports. The project will give direc employment to about 190 people.

Conclusion and Recommendations

101. The Chimica del Tirreno project is sound and could be the basis for a loan of Lit. 1.6 billion ($2.56 million) including interest during construction. The term of the loan could be 12 years, including two years of grace.

4. Vetreria di Latina

Borrower

102. The proposed borrower, Vetreria di Latina, S.p.A., a Company to be formed as soon as financing for the project is assured, plans to build a pressed glass factory in Latina, a town about 50 miles south of Rome. The new firm will be a family company with half the shares owned by Eduardo Ragazzi and his brother, Vittorio, and the balance by two other families. The cost of the project is estimated at Lit. 740 million ($1.18 million) including interest during construction and working capital. It is proposed that Lit. 400 million ($0.64 million) be financed from IBRD funds.

Description of the Project

103. The plant would have a normal capacity of one million square meters of pressed glass per year. It would be exceeded in capacity by only one of the three pressed glass plants now operating in Italy and would add more than one quarter to current pressed glass output. Production would be by a continuous process. Except for part of the silica sand, all raw materials are available in Italy. Rail and highway transportation, power and water are available at the site.

Present Status

104. The Company is to be formed as soon as financing has been arranged. The site has been purchased and construction plans are completed. It is estimated that the plant could begin operations two years from the date that financing has been assured.

Management

105. The two principal owners of the firm, the Ragazzi brothers, have had twenty years of experience in glass making and were previously part owners of a glass plant in Trieste. Technical staff will be brought from other glass plants in Italy and Belgium.

Financing

106. It is proposed that the total cost of the project, Lit. 740 million (including interest during construction and Lit. 60 million for net working capital) should be financed as follows:

Share Capital	Lit. 100 million
Shareholders' Advances	240 "
IBRD Loan	400 "
	Lit. 740 million

Although the loan in this case is 55% of the total estimated cost of the project, the merits of the project and the high rate of expected profit justify this percentage.

107. The estimated balance sheets of the Company upon completion of the project and after three years of operation are shown below (in million lire):

	June 30 1958	June 30 1961		June 30 1958	June 30 1961
Fixed Assets	680	680	Share Capital	100	100
Less Depreciation	-	204	Shareholders'		
Net Fixed Assets	680	476	Advances	240	240
Net Current Assets	60	60	Surplus	-	292
"Additional Assets"	-	396	IBRD Loan	400	300
	740	932		740	932

108. Financial forecasts are attached as Annex 8 and a letter of financial conditions agreed to by the Company as Annex 9.

Markets

109. The consumption of pressed glass in Italy has increased at an average annual rate of about 7.5% since 1947 and has thus almost doubled in the past eight years. Sales amounted to 3.6 million square meters in 1955. Productive capacity of the three Italian plants making this type of glass has not been increased during the last five years and the increased market demands have been met through increased imports. By 1955 imports reached a record amount of one million square meters, providing 28% of the pressed glass consumed in Italy. If Italian demand increases by as much as 4-5% a year in the next few years, it will be great enough to absorb the output of this plant and of another plant to be built in the Naples area by the time both are in full operation. Vetreria Latina's estimated production costs are about 10% below the cif cost of imports of the same types of glass, before duty which amounts to about 30% ad valorem. Costs also compare favorably with those of other Italian producers.

Earnings Prospects and Debt Service Coverage

110. The Company estimates that normal production levels will be reached soon after the plant is completed and that at a sales price about 13% below current levels, it could realize annual net profits of about Lit. 100 million on sales of Lit. 610 million. This net profit would represent a return of about 29% on share capital plus shareholders' advances. These estimates may prove to be over-optimistic, especially if effective competition in pressed glass reduces prices even below the Company's estimate. However, the forecast profit margin is wide enough to enable the Company to withstand a further price drop.

111. The Company's estimates of annual earnings before interest or depreciation indicate a coverage of about 3.5 times the yearly requirement for service of the IBRD loan. On the basis of these estimates, the Company could withstand a decrease of about 12% in revenues and a simultaneous increase of about 12% in costs and still maintain service on the IBRD loan.

Economic Justification

112. The Latina project will produce glass, mainly from domestic raw materials, which will eliminate the need for the large and growing imports of pressed glass. The cif cost of these imports in 1955 before duty amounted to about Lit. 500 million. It is estimated that if no additional pressed glass capacity were installed in Italy in the next three years, imports would require about Lit. 1 billion in foreign exchange.

Conclusion and Recommendations

113. The Vetreria di Latina project is sound and could be the basis for a loan of Lit. 400 million ($0.64 million) including interest during construction. The term of the loan could be 13 years, including a three year grace period.

5. Saint Gobain - Caserta Branch

Borrower

114. The proposed borrower, Fabbrica Pisana di Specchi e Lastre Colate di Vetro della Soc. Anon. Saint Gobain, plans to build a glass factory in Caserta. The cost of the project is estimated at Lit. 5.45 billion ($8.72 million) including interest during construction and working capital; it is proposed that Lit. 2.5 billion ($4.0 million) should be financed from IBRD funds.

115. The Fabbrica Pisana is a branch of the French company, Saint Gobain, Chauny et Cirey, but under Italian law is a legal entity and may enter into agreements. Although financing will come from the Pisa branch, the Caserta plant will be operated as a branch of the French company.

Description of the Project

116. The Caserta plant, which will be similar to the Pisa factory, will have a capacity of 100 tons of glass per day, from which the Company will produce annually 650,000 square meters of plate glass and 1.0 million square meters of pressed glass. The process will be continuous. Except for a portion of the high silica sands, all raw materials are available in Italy. Adequate transport facilities, power and water supplies, are accessible at the plant site.

Present Status

117. Construction plans have been completed. Construction time is estimated at two years after financing has been arranged.

Management

118. Saint Gobain has had 290 years experience in the manufacture of glass. Experienced management and technical personnel will be made available from the Pisa plant.

Financing

119. The cost of the fixed assets of the new plant is estimated at Lit. 5.380 billion, including interest during construction and the initial net working capital required on project completion estimated at Lit. 70 million. It is proposed that Lit. 2.5 billion should be financed from IBRD funds and the balance, Lit. 2.95 billion, by advances from the Pisa branch of the Saint Gobain Company. These advances would be treated as share capital. The financial position of the Pisa branch has been examined and its ability to make such advances has been confirmed. Its recent financial statements are shown as Annex 10. The Saint Gobain Company of France would assist directly in the financing of the project only if for some unforeseen reason the Pisa branch could not advance the necessary funds. Recent financial statements of the Saint Gobain Company are shown as Annex 11.

120. During the first year of operations it is expected that working capital requirements will increase to a total of Lit. 340 million. It is planned that the additional Lit. 270 million of working capital will be made available as required from depreciation accruals and earnings during the year.

121. The estimated balance sheets of the Caserta plant upon the completion of the project, after the first year of operation when net working capital is to reach a normal level, and after five years' of operation are shown below (million lire):

	Dec. 31 1958	Dec. 31 1959	Dec. 31 1963
Fixed Assets	5,380	5,380	5,380
Less Depreciation	-	416	2,080
Net Fixed Assets	5,380	4,964	3,300
Net Current Assets	70	340	340
"Additional Assets"	-	102	1,535
	5,450	5,406	5,175
Equity (advances)	2,950	2,950	2,950
Surplus	-	325	1,795
Rehabilitation Reserve 1/	-	80	430
IBRD Loan	2,500	2,051	-
	5,450	5,406	5,175

1/ In the glass and steel industries, a special reserve fund is sometimes set up to meet the expense of rebuilding furnaces.

122. Financial forecasts for the project are given in Annex 12 and a letter of financial conditions accepted by the Company is attached as Annex 13.

Markets

Plate Glass

123. Italian consumption of plate glass has increased from 661,000 to 1,851,000 square meters since 1948, an increase of more than 15% per year. Production has failed to keep pace and imports have risen from 240,000 square meters in 1948 to 707,000 in 1955. If demand rises at a rate of only 7% a year, imports will reach 1.0 million square meters by 1958 unless additional plate glass-making capacity is installed in Italy. The proposed Saint Gobain plant, which is to have a capacity of 650,000 square meters of plate glass per year, should have no difficulty in marketing its output on its completion in 1959.

Pressed Glass

124. The consumption of pressed glass in Italy has increased at an average annual rate of about 7.5% since 1947 and has thus almost doubled in the past eight years. Sales amounted to 3.6 million square meters in 1955. Productive capacity in the three Italian plants making this type of glass has not been increased during the last five years and the increased market demands have been met through increased imports. By 1955 imports reached a record amount of 1.0 million square meters, or about 28% of the pressed glass consumed in Italy. If Italian demand increases by as much as 4-5% a year in the next few years it will be great enough to absorb the output of this plant and of another plant to be built in southern Italy by the time both are in full operation.

125. Saint Gobain's estimated production costs for pressed glass are more than 10% below the cif prices for equivalent imports before duty which amounts to about 30% ad valorem. Their estimated costs for plate glass are about equal to the import prices including duty.

Earnings Forecasts and Debt Service Coverage

126. The Company expects the new plant to be operating at a normal capacity level in its first full operating year and forecasts sales of Lit. 2,550 million and a net income of Lit. 325 million, which would represent a return of 11% on capital advances. By the fifth operating year, it is estimated, net profits will rise to about Lit. 400 million which would represent a return of 13.5% on capital advances. The earnings forecasts are shown in Annex 12.

127. Estimated earnings of the project before interest or depreciation would provide a coverage of about 1.5 times the amount required to service the loan on the five-year amortization basis requested by the Company. The project would be able to withstand a drop of 6% in estimated revenue along with an increase of 6% in estimated operating costs and still maintain its scheduled debt service.

128. In estimating its future earnings, the Company has assumed an annual output of 1.0 million and 650,000 square meters of pressed and plate glass respectively. Our calculations indicate, however, that with the planned equipment the Company should be able to reach an annual production of 1.3 million and 800,000 square meters of pressed and plate glass respectively. The Company's earning capacity is thus greater than is indicated in its forecasts in Annex 12.

Economic Justification

129. The Caserta project will produce both plate and pressed glass mainly from domestic raw materials and will reduce the need for the growing imports of both. It is estimated that the project will make possible net annual import savings of about Lit. 1.5 billion ($2.4 million): Lit. 1.0 billion on plate glass and Lit. 0.5 billion on pressed glass. The plant will, moreover, provide employment for about 550 people.

Conclusion and Recommendations

130. The Saint Gobain-Caserta project is sound and could be the basis for a loan of Lit. 2.5 billion ($4.0 million) including interest during construction. The Company has requested that the term of the loan be seven years, including a two-year grace period.

6. Viberti

Borrower

131. The proposed borrower would be Officine Viberti, S.p.A. a privately-owned company now operating two factories in northern Italy. With a production of about 3,600 truck and bus bodies and 2,000 trailers each year, the company is a leading Italian firm in its field. It now makes about one-half of all the trailers and about one-third of all the bus bodies produced in Italy. 99% of the shares of the company are owned by Dr. Angelo Viberti. The project is a new vehicle body and trailer plant to be located at Naples. The cost of the project is estimated at Lit. 1,974 million ($3.16 million) including interest during construction and working capital. It is proposed that Lit. 840 million ($1.34 million) should be financed from IBRD funds.

Description of the Project

132. The new Naples factory will have an annual capacity of 900 truck and bus bodies and 500 trailers. Output will include a large number of special vehicles such as fire trucks, garbage trucks, crane trucks, and tank trucks. All vehicle bodies are made to order on chassis manufactured by other companies.

Present Status

133. About Lit. 259 million has been spent, mostly for land. Preliminary site work has been done and project plans are completed. No equipment has been ordered. It is estimated that the plant can be completed in about a year from the time that financing has been arranged.

Management

134. Adequate management and technical staff will be made available from the other plants of the company.

Financing

135. The total requirements of the company for financing in 1956 and 1957, when the proposed Naples plant would be completed, are as follows (million lire):

Naples Plant Fixed Assets	1,474
Naples Plant Net Current Assets	500
	1,974
Service on Bonds	138
Additional Fixed Assets, other plants	200
	2,312
Less amount spent in 1955	259
	2,053

136. It is proposed that this amount should be financed as follows (million lire):

Depreciation Accruals (1956, 1957)	290
Net Profits before Interest (1956, 1957)	693
Bond Receipts (1955)	250
IBRD Loan	840
	2,073

The small excess of estimated cash availability over estimated expenditures will serve as a reserve in case costs increase beyond estimates or earnings are less than estimated.

137. The estimated balance sheets of the Company on the completion of the new plant and at the end of the third year after its completion are shown below (million lire):

	Dec. 31 1957	Dec. 31 1960		Dec. 31 1957	Dec. 31 1960
Fixed Assets	3,113	3,503	Share Capital	750	750
Less Depreciation	1,014	1,803	Surplus and Reserves	1,444	2,457
Net Fixed Assets	2,099	1,700	Bonds	660	581
Investments and other assets	209	209	IBRD Loan	840	638
Net Current Assets	1,781	1,781	Reserve for Employee Severance	415	415
"Additional Assets"	20	1,151			
	4,109	4,841		4,109	4,841

138. Financial forecasts of the Company are given in Annex 14. A letter setting forth the financial conditions agreed to by the Company is attached in Annex 15.

Financial Position of the Company

139. The net income of the Viberti company has risen from Lit. 236 million in 1951 to Lit. 313 million in 1955, on sales of Lit. 4.0 billion and Lit. 6.5 billion respectively. In 1955 the net income represented a return of 20% on net worth. About two thirds of the earnings were paid out in dividends.

Markets

140. Italian purchases of buses, trucks and goods trailers increased from 14,878 units in 1951 to 34,635 in 1954. In 1955 purchases declined to 30,235 units, but the decline was mainly in low-valued items. In the past three years there has been some slowing down of growth as well as sharp year-to-year fluctuations, but expansion has continued.

141. Demand may grow less rapidly in the future, and year-to-year fluctuations are to be expected, but the steady expansion of the Italian economy should provide a growing market for these vehicles. The proposed Naples plant would add only about 5% to total Italian capacity; it is conservatively estimated that consumption is increasing by a considerably higher percentage each year.

142. The Viberti Company has done about as well as the industry as a whole. Its sales increased from 3,182 units in 1951 to 5,724 in 1954, and the increase was particularly marked in high value items such as bus bodies. Although it suffered a decline in demand in 1955, as did the whole industry, it was able to shift successfully to the production of items requiring more labor and selling at a higher price and was, in fact, unable to handle all the business offered to it. All the indications are that it could increase domestic sales if its productive facilities were expanded. The company should also be able to increase exports, since its export prices are competitive with those of other European producers, and, in Mediterranean and Middle Eastern markets, compare favorably with American prices for most items.

143. A Naples plant would be well located to handle the 20% of Viberti business now originating in the area between Rome and Naples, as well as part of its export business.

Earnings Prospects and Debt Service Coverage

144. The company expects the new plant to reach normal output in the third year of operations and forecasts net profits at that time of about Lit. 90 million on sales of about Lit. 2.3 billion. This estimate would represent a profit margin of about 4% on sales and appears conservative, since the company's older plants have shown a profit margin of 5 - 6%. The company believes that the profit margin on sales in the new plant can be raised eventually to about 6%. This would mean annual net profits of about Lit. 138 million. Even the more conservative estimate of a net profit in 1960 of Lit. 90 million would be a return of about 10% on the company's own funds invested in the project.

145. Even on the conservative assumption that all plants will have profit margins of only 4% on sales, earnings for the company as a whole, before interest or depreciation, provide a cover of 4.5 times the service on both existing bonds and the proposed IBRD loan.

Economic Justification

146. The development of the Italian economy, particularly in the south, makes necessary a great expansion in transportation facilities. Aided by road improvement programs, highway transport is growing in importance. The proposed project will play a part in that development by making possible the production of bus and truck bodies and trailers at costs below the prices at which similar items can be imported from other European countries (cif prices before duty). The plant will give direct employment to about 400 people and will have important secondary benefits arising from its procurement of parts and other materials.

Conclusion and Recommendations

147. The Viberti project is sound and could form the basis for a loan of Lit. 840 million ($1.34 million) including interest during construction. The term of the loan could be for 13 years, including a three-year grace period.

7. Fiat

Borrower

148. The proposed borrower would be Fiat, S.p.A., a privately owned Company incorporated in 1906. The Company proposes to build a new assembly and parts plant at Naples. The total cost of the program is estimated at Lit. 7.0 billion ($11.2 million) including interest during construction and initial working capital. It is proposed that Lit. 3.0 billion ($4.8 million) be financed from IBRD funds. Fiat is the largest automotive manufacturer in Italy, producing about 80% of Italian-made motor vehicles. In 1955 the Company produced 225,711 passenger cars and light vehicles, 11,467 trucks, 1,942 buses and 12,456 tractors. Twenty-two per cent of the Company shares are held by the Instituto Finanziario Industriale; the balance is widely distributed.

Description of the Project

149. The new Naples plant will be used initially for the manufacture of spare parts for the maintenance of farm tractors, trucks, and buses in southern Italy, and for the assembly, painting, upholstering, finishing and testing of a new small-sized economy car. The plant will have an annual capacity of about 30,000 cars and 200 tons of spare parts. The plan is to expand the Naples plan later on to enable it to manufacture more of the parts to be used in the plant's assembly work. The project includes the construction of buildings, and of service utilities, and the provision of machine tools, and mechanized assembly systems. Adequate power, water and transport facilities are available at the site.

Present Status

150. Up to the end of March 1956, Lit. 330 million had been spent on the project for land site improvement and planning. The buildings are scheduled for completion by the middle of 1957, and machinery installations for early 1958.

Management

151. Adequate management and technical staff will be made available from the other plants of the Company.

Financing

152. The Naples plant will be an integral part of the Fiat organization and not a separate financial entity. Its financing, both long term for fixed assets, and short term for working capital, will be provided by the Fiat Company. Of the total project cost of Lit. 7.0 billion (consisting of Lit. 6.5 billion for fixed assets together with interest during construction, and Lit. 0.5 billion for net current assets) Fiat will provide Lit. 4.0 billion as long term advances. It is proposed to finance the remaining Lit. 3.0 billion, with IBRD funds. Additional working capital requirements of the plant will be provided by Fiat through internal credits. Estimated balance sheets for the Naples plant, taken for illustrative purposes, as a separate entity, at the time when

the project is completed, and after five years of operation are shown below (in million Lire):

	Upon Project Completion	After 5 Years' Operation		Upon Project Completion	After 5 Years' Operation
Fixed Assets	6,500	6,500	Head office;		
Less Depreciation	-	1,890	Long term advances	4,000	4,000
Net Fixed Assets	6,500	4,610	Short term advances (current liabilities)	-	1,420
Net Current Assets	500	1,900	Surplus	-	2,500
"Additional Assets"	-	3,119	IBRD Loan	3,000	1,709
Total	7,000	9,629	Total	7,000	9,629

153. Financial forecasts for the plant, again taken for illustrative purposes, as a separate entity, are shown in Annex 17. A letter setting forth the financial conditions agreed to by the Company are shown in Annex 18.

Financial Position of the Company

154. The net profit of the Fiat Company has risen from Lit. 5.4 billion in 1952 to Lit. 12.7 billion in 1955, which represented a return increasing from 15% to 22% on share capital. At the end of 1955 the Company's assets amounted to Lit. 335 billion and its net worth to Lit. 242 billion. Its current ratio was 1.5:1. Financial statements of the Company for the past four years are attached as Annex 16.

Markets

155. Italian production, imports and exports of motor vehicles from 1950 to 1955 inclusive are given below. Production, which has more than doubled in the five-year period, has increased by 24% to 26% in each of the past three years. Exports, which have more than doubled in the last three years, accounted for 28% of production in 1955.

	Production	Import	Export
1950	127,847	-	21,905
1951	145,553	756	32,250
1952	138,446	1,628	26,460
1953	174,308	1,751	31,506
1954	216,700	1,823	44,136
1955	268,756	2,604	74,645

156. Fiat has produced between 80 and 90% of all Italian made motor vehicles in these years. It has increased its productive capacity by about 30,000 vehicl

a year on the average during the past three years and has found a market for this increased output. The proposed Naples plant will represent an increase in capacity of about the same magnitude. The Company is not merely counting on an expansion of demand for its standard products. The Naples plant is to produce a new, smaller, lower priced car which is expected to open up a large new market.

157. Despite the rapid increase in motor vehicle numbers in Italy in the post-war period, a continued increase for many years seems probable. There is only one motor vehicle for every 40 persons in Italy, compared with one car for every 18 persons in France, 17 in Switzerland, and 14 in Britain. Apart from the growing size of the vehicle market, demand for vehicles for replacement purposes, which now accounts for about one quarter of vehicle sales, is increasing and will tend to support the vehicle market when expansion levels off.

Earnings Estimates and Debt Service Coverage

158. Fiat maintains its own sales organization and follows the practice of invoicing vehicles from its plants to the sales division at factory cost. The sales organization, selling the vehicles at list price, cover its costs and records most, if not all, the profits of the Fiat Company.

159. In order to arrive at earnings forecasts for the proposed Naples plant as if it were a separate entity, it has been necessary to credit the plant with sales of its output at Company list prices and to charge the plant with its share of selling costs. Earnings estimates made on this basis, which are shown in Annex 17 indicate that earnings of the Naples plant should amount to about Lit. 605 million on sales of Lit. 15.2 billion by the third operating year, when it is expected the plant will reach full normal output on one-shift operation. By the seventh operating year, as more of the parts can be made in the plant, it is expected that costs can be sufficiently reduced to bring a net profit of about Lit. 1.0 billion on sales of Lit. 15.2 billion. These earnings would represent a return of 15% and 26% respectively on the long-term investment of Company funds in the plant. These earnings estimates are considered conservative. It is probable that full normal production on a one-shift basis can be attained before the third operating year. It is also likely that two-shift operation, which is regarded as normal in other Fiat plants, will be reached some time before the seventh year - with a resultant substantial rise in plant earnings.

160. Estimated earnings before interest or depreciation shown in this forecast would provide a cover for service on the IBRD loan increasing from 1.8 times in the second operating year to 3.8 times in the fifth operating year.

Economic Justification

161. The development of the Italian economy is creating both the need for and the means to support improved facilities for transportation of persons and goods. The new plant will contribute to the support of essential transportation by producing repair parts for trucks, tractors and buses. By producing a new lower priced car, it will make personal transportation available to

thousands of people who until now have not been able to afford a car.

162. The establishment of the first Fiat plant in the south is important in a number of ways. It will bring the production of vehicles closer to a rapidly growing market. It will provide direct employment initially for about 500 workers. It will have great indirect benefits for the area. It is probable that once Fiat is established in the south, its operations, both in the assembly of vehicles and the production of parts will expand there.

163. The project should also make possible substantial foreign exchange earnings. If the Naples plant exports the same percentage of its output as the entire Fiat Company did in 1955 (22%), it will be responsible for gross foreign exchange earnings equivalent to about Lit. 3 billion ($4.8 million) per year operating at a normal level.

Conclusion and Recommendations

164. The Fiat Naples project is sound and could be the basis for a loan of Lit. 3.0 billion ($4.8 million) including interest during construction. The term of the loan could be 12 years including a two-year grace period.

8. A.B.C.D.

Borrower

165. The proposed borrower is Asfalti Bitumi Cementi e Derivati, S.p.A. (ABCD), a company now producing cement and asphalt products at Ragusa, Sicily. The company plans to add to its product lines special cements, fuel oil for internal use, and polyethylene. The cost of the program is estimated at Lit. 6.581 billion ($10.53 million) including interest during construction and working capital; it is proposed that Lit. 3.1 billion ($4.96 million) should be financed from IBRD funds. Of the total requested from the IBRD, Lit. 2.8 billion would be for the polyethylene plant and Lit. 0.3 billion for the crude oil stripping plant and the facilities needed to produce special cements.

166. ABCD is owned (90%) by Calci e Cementi di Segna, which in turn is controlled by Bombrini-Pariodi-Delfino, a company with important interest in chemicals and plastic raw materials.

Description of the Project

167. Bituminous limestone (limestone containing asphalt) is found in large quantities near Ragusa. The ABCD company has been successful in developing a process to distill the bituminous material out of the rock. The rock residue is suitable for the manufacture of cement, and the bituminous materials are further processed into road paving materials, building materials and fuel for the cement kilns.

168. The recent discovery of oil at Ragusa, close to the ABCD plant, has led the company to plan a two-stage expansion program. The first stage includes a stripping plant (350 tons per day) operating on Ragusa crude to provide additional fuel for ABCD's cement and asphalt plant and facilities for the production of special cements. The special cements are made by reprocessing normal cement clinker; there would therefore be no appreciable increase in total cement production. The second stage would include a second 350-ton stripping plant and facilities for the production of 5,000 tons per year of polyethylene.

169. The polyethylene would be produced from the light fractions from the stripping plants. Most of the output of heavy residual fuel oils would be consumed by the ABCD associated companies; only a small amount would be placed on the Sicilian market.

170. Apart from the project, the company is constructing a hydrated lime plant and is making minor additions to its asphalt products plants.

Present Status

171. Construction of the first stage of the program is expected to be completed by the end of 1956. Planning for the second stage is well advanced. Construction could start shortly after financing has been arranged and would require about three years.

Management

172. The ABCD has experienced management and technical personnel. Additional personnel and know-how which may be required when the polyethylene plant begins to operate can be secured from either the BFD central research organization or the equipment suppliers through existing licensing arrangements.

Financing

173. The ABCD company plans to finance Lit. 1,981 million of the project's cost from retained earnings and depreciation accruals and an additional Lit. 1,500 million through the issue of new share capital; the remaining Lit. 3,100 million required would be provided by the proposed IBRD loan. The financial position of the company at the end of the 1955 fiscal year, and its estimated position upon completion of the project and at the end of three years of operation with the new facilities are as follows (million lire):

	Sept. 30 1955	Sept. 30 1959	Sept. 30 1962
Fixed Assets	2,286	8,567	8,567
Less Depreciation	180	1,150	3,091
Net Fixed Assets	2,106	7,417	5,476
Net Current Assets	235	735	835
"Additional Assets"	-	1,507	6,494
	2,341	9,659	12,805
Share Capital	400	1,900	1,900
Shareholders' Advances	564	831	831
Surplus and Reserves	278	3,125	7,506
IBRD Loan	-	3,100	2,090
Other Debt	1,099	703	478
	2,341	9,659	12,805

174. The net income of the ABCD company has risen from Lit. 57 million in the 1952-1953 fiscal year to Lit. 105 million in 1954-1955 on net sales of Lit. 769 million and Lit. 2,103 million respectively. Earnings in 1954-1955 represent a return of 18% on net worth excluding loans of associated companies.

175. Financial forecasts of the company are given in Annex 19. A letter setting forth the financial conditions agreed to by the company is attached in Annex 20.

Markets

176. Polyethylene production is relatively new to Italy. The first Italian plant was completed only recently, and in 1955 production amounted to about 4,000 tons. There is little therefore on which to base a forecast of future consumption. However, the experience of other countries suggests that consumption in Italy will grow rapidly. In the United States, consumption increased almost 3.5 times between 1952 and 1955. Polyethylene's outstanding electrical insulating properties, high chemical resistance and mechanical toughness find uses in many industrial fields.

177. Because of the favorable location of the proposed plant with respect to raw materials, it is estimated that production costs for polyethylene would be a little over half the current United States selling price and 40% of the current selling price in Italy. The company should have no difficulty in disposing of its product on the export market if sales do not develop as rapidly as expected in Italy. Most of the heavy oil would be consumed by ABCD and its associated companies. Other by-products, such as crude gasoline and butane, should find a ready market locally.

178. The companies associated with ABCD are now producing the types of special cements that ABCD plans to produce. These find a ready market where there is a demand for cement with a high early strength, special chemical resistance or color.

Earnings and Debt Service Coverage

179. Operating at normal capacity and selling at prices somewhat below those presently prevailing, the project would have net sales of an estimated Lit. 5.0 billion and produce a net income of approximately 1.2 billion per year, a return of about 18% on total project costs. Forecasts of the sales and earnings of the company as a whole are given in Annex 19.

180. Estimated company earnings before interest or depreciation, when all facilities are operating at a normal rate, should cover the service of the proposed IBRD loan five times. The company should be able to withstand a simultaneous drop of 13% in sales revenues and an increase of 13% in operating costs and still maintain service on the proposed IBRD loan.

Economic Justification

181. The establishment of polyethylene production at Ragusa will make available at a price well below equivalent imports, a material with outstanding qualities for use in the Italian electrical and chemical industries. The project will allow economic utilization of a portion of the crude oil produced in Ragusa and will create employment for about 250 persons in an area where considerable resentment has been aroused over the fact that the discovery of oil has not led to any increase in jobs because the oil is being removed from the area for processing.

Conclusion and Recommendations

182. The ABCD project is sound and could form the basis for a loan of Lit. 3.1 billion ($4.96 million) including interest during construction. The term of the loan could be for 11 years, including a three-year grace period.

9. Cementerie di Augusta

Borrower

183. The proposed borrower would be the Cementerie di Augusta, S.p.A., a privately-owned firm which was established in 1952. The company now operates a cement plant near Augusta in Sicily, with an annual capacity of 130,000 tons. One half of the company's share capital is owned by the Instituto Finanziario Industriale which is the Fiat holding company. The largest minority shareholder is the Marcino group, the second largest cement producer in Italy. The proposed project would increase the capacity of the plant to 300,000 tons per year. The cost of the project is estimated at Lit. 1.8 billion ($2.88 million) including interest during construction and working capital. It is proposed that Lit. 900 million ($1.44 million) be financed from IBRD funds.

Description of the Project

184. The borrower proposes to add a second kiln and the additional crushing, grinding, drying, storing and related facilities required to increase productive capacity at the plant. As this is a rounding out project to expand an existing plant to its optimum size, the capital cost per ton of added capacity is less than half that of a new plant.

Present Status

185. Planning of the project is well advanced but less than 10% of the estimated project costs have been incurred to date. The estimated construction period is two years.

Management

186. Adequate managerial and technical staff are available within the company.

Financing

187. It is proposed that Lit. 600 million of the cost of the project, which is estimated at Lit. 1.8 billion, would be covered by the issue of new share capital and Lit. 300 million by net profits and depreciation accruals during the construction period; the remaining Lit. 900 million would be covered by the proposed IBRD loan. The estimated balance sheet on June 30, 1956, at the completion of the expansion program, and at the end of three years of expanded operations are shown below (million lire):

	June 30 1956	June 30 1958	June 30 1961
Fixed Assets	2,390	3,990	3,990
Less Depreciation	190	570	1,560
Net Fixed Assets	2,200	3,420	2,430
Net Current Assets	140	466	466
"Additional Assets"	8	110	2,316
	2,348	3,996	5,212
Share Capital	1,000	1,600	1,600
Surplus	360	660	2,350
IBRD Loan	-	900	684
Other long term debt	988	836	578
	2,348	3,996	5,212

188. Financial forecasts are given in Annex 21. A letter incorporating the financial conditions agreed to by the company is attached in Annex 22.

Markets

189. The seven cement plants in Sicily now produce about 700,000 tons per year. Expansion programs already planned (including the proposed expansion of Cementerie di Augusta) will increase capacity to about 1,200,000 tons by 1959. Sicilian cement consumption has more than doubled in the past four years and amounted to 779,000 tons in 1955. Even if demand increases only half as fast in the next four years as in the past few years, Sicilian consumption would about equal estimated production on the island in 1959. It seems reasonably conservative to expect that demand will increase at least as much as this in view of the heavy and increasing demand for cement for the Cassa program, other public works and housing. However, if demand increased a little more slowly, any surplus of Sicilian cement should be readily marketable in the southern mainland provinces.

Earnings Prospects and Debt Service Coverage

190. The company expects its expanded plant to reach its average annual output of 270,000 tons by the second year after completion of the expansion program. If this output is sold at current mainland prices, which are somewhat below the current Sicilian price, the company's sales would equal Lit. 2.4 billion, and its net profits would amount to an estimated Lit. 630 million per year, a return of 39% on share capital.

191. Estimated earnings before depreciation or interest calculated on these assumptions, would provide a coverage of 4.4 times the amount required for servicing the proposed IBRD loan and other long term debt. The company could withstand a simultaneous reduction of about 19% in estimated revenues, and a 19% increase in estimated production costs and still maintain service on all of its long term debt.

Economic Justification

192. Since cement can be produced as cheaply in Sicily as on the mainland, and transportation of cement from the mainland adds about 20% to its cost, it is economically desirable for the island to produce enough cement to meet its own requirements. The Cementerie di Augusta project has particular advantages because it will provide additional capacity at a very low capital cost per ton. It will provide employment for an additional 30-40 people.

Conclusion and Recommendations

193. The Cementerie di Augusta project is sound and could be the basis for a loan of Lit. 900 million ($1.44 million) including interest during construction. The term of the loan could be 13 years, including a three-year grace period.

10. Cementerie di Sardegna

Borrower

194. The proposed borrower would be the Cementerie di Sardegna, S.p.A., a wholly-owned subsidiary of the Italcementi Company, the largest cement company in Italy. Cementerie di Sardegna, which now operates a plant near Cagliari in southern Sardinia, with a normal capacity of 270,000 tons per year, proposes to erect a cement plant near Sassari in the northern part of the island.

195. The cost of the project is estimated at about Lit. 2.7 billion ($4.32 million) including interest during construction and working capital. It is proposed that Lit. 1.5 billion ($2.4 million) should be financed out of IBRD funds.

Description of the Project

196. The plant, using the dry process, would have a normal capacity of 100,000 tons of cement per year at the outset, but is designed so that its capacity can be doubled in the future. It would be connected with the Chilivani-Sassari railway line and an all-weather highway. Limestone deposits adjoin the factory site, and clay deposits are about 20 kilometers away by road. The plant is to be equipped to burn either fuel oil or Sardinian coal or both, depending upon the relative market prices. Power is to be purchased from the Societa Elettrica Sarda, whose transmission line passes close to the proposed site. Housing is to be provided for key personnel.

Present Status

197. The company has spent about Lit. 35 million on land and geological studies. Construction could start as soon as financing has been arranged, and it is estimated that the plant could be completed within two years.

Management

198. Key operating personnel would come from Italcementi or from the Cagliari plant. The Italcementi organization has had many years of successful operation of cement plants in Italy.

Financing

199. It is proposed that the cost of the plant, Lit. 2.5 billion, should be financed by an advance of Lit. 1.0 billion from the parent company and the proposed loan of Lit. 1.5 billion from IBRD funds. Working capital would be provided as required out of earnings and depreciation accruals. The Company has agreed to increase net current assets to Lit. 400 million within the first 12 months of operation of the Sassari plant.

200. It is expected that the shareholders' advances will be converted into share capital during the first operating year of the new plant which, according to present plans, will be 1958.

201. The estimated balance sheets of Cementerie di Sardegna on the completion of the new plant, and at the end of the third year of operation of the new plant are shown below (million lire):

	Dec. 31 1957	Dec. 31 1960		Dec. 31 1957	Dec. 31 1960
Fixed Assets	4,974	5,274	Share Capital	1,000	2,000
Less Depreciation	1,920	2,973	Shareholders'		
Net Fixed Assets	3,054	2,301	Advances	1,000	-
Net Current Assets	220	411	Surplus	715	1,693
"Additional Assets"	941	2,118	IBRD Loan	1,500	1,137
	4,215	4,830		4,215	4,830

202. Financial forecasts for Cementerie di Sardegna are given in Annex 23. A letter containing the financial conditions agreed to by the company is attached as Annex 24.

Financial Position

203. The financial position of the proposed borrower and its parent company have been stated by the latter to be as follows (million lire):

	Cementeria Sardegna (Dec. 31, 1955)	Italcementi (June 30, 1955)
Fixed Assets	2,325	33,029
Less Depreciation	1,500	23,480
Net Fixed Assets	825	9,549
Current Assets	250	19,197
"Additional Assets"	230	2,143
	1,305	30,889
Share Capital	1,000	12,000
Surplus	235	10,408
Current Liabilities	70	8,481
	1,305	30,889
Current Assets/ Current Liabilities	3.6	2.3
Net Worth/Total Liabilities and Net Worth	0.95	0.73

These figures appear to be conservative.

204. Between 1952 and 1955 total sales by Italcementi rose from Lit. 23 billion to Lit. 33 billion, and its net income from Lit. 1.4 billion to Lit. 3.2 billion; the latter figures represented 11% and 14% respectively on net worth. Sales by Cementeria di Sardegna's Cagliari plant rose from Lit. 1.4 billion in 1952 to Lit. 2.4 billion in 1955, and its estimated net profit from Lit. 118 million to Lit. 200 million, or from about 11% to 19% on net worth as of June 1955.

Markets

205. Between 1952 and 1955 cement consumption in Sardinia increased steadily from 200,000 tons to 283,000 tons, an increase of about 12% per year compounded. It is expected that this rate of increase will be maintained or even accelerated as the large land reclamation and housing projects get under way.

206. Increasing its sales in step with rising demand, the Cagliari plant has supplied 95% of the market. The remainder has come from the mainland. No further increase in production at Cagliari is possible. Moreover, the growth of consumption in the northern part of the island around Sassari to about 50,000 tons, and the prospect that consumption in that section will continue to rise rapidly, makes it desirable to locate a plant there. The company should have no difficulty in selling the full output of its two plants in the future.

Earnings and Debt Service Coverage

207. Italcementi's estimates of the earnings of the project, which appear to be conservative, show a net return after taxes of about 5.5% on the share capital in the first year, when it is expected that the plant will be operating at about 85% of normal capacity, increasing to about 12.3% in the third year, when the plant is expected to be operating at normal capacity.

208. The estimated earnings of the company from both plants, before interest or depreciation, would provide a coverage of about 3.7 times the amount required for service of the proposed loan. On the basis of conservative estimates the company should be able to withstand a simultaneous reduction of 8% in revenue and an increase of 8% in cost and still maintain debt service.

Economic Justification

209. Sardinian demand for cement has outstripped productive capacity on the island. Northern Sardinian requirements could be met from a plant located in the Sassari area at an annual saving in transport costs estimated at from Lit. 300 - 400 million, based on the cost of shipping from Cagliari and the mainland respectively.

210. The raw materials, fuel and labor required for economic production of cement are readily available in Sardinia. A new plant at Sassari would provide employment for about 130 workers.

Conclusion and Recommendations

211. The Cementerie di Sardegna cement project is sound and could be the basis for a loan of Lit. 1.5 billion ($2.4 million) including interest during construction. The term of the loan could be for a period of 13 years including a 3 year period of grace.

IV. IRRIGATION PROJECT

A. General

212. The Campidano di Cagliari (Flumendosa) Irrigation Project in Sardinia has been submitted for consideration by the Bank as a basis for a loan of about $25 million equivalent to the Cassa. It will be the largest (50,000 ha.) and the most expensive irrigation project (Lit. 53.1 billion - $85 million equivalent) financed to this date by the Cassa per il Mezzogiorno. Construction is now under way, with the tunnels and principal canals in an advanced stage and with the foundation of two dams completed. This project is the only large single opportunity to increase agricultural production on the island of Sardinia. It is given high priority in the Cassa program.

B. The Present Agircultural Situation

213. 1. The area: The project area is part of the large plain (390,000 ha.) which extends from the port of Cagliari in the south of Sardinia to beyond the town of Arborea on the west coast of Sardinia. Two parts in the northwest region of this plain have already been brought successfully under irrigation.

214. As a result of the elimination of malaria, and of the completion of a series of minor works, the population of the plain has increased rapidly as shown below:

Population
(x 1,000)

	1936	1951	1953
Province of Cagliari	507	665	697
Campidano di Cagliari	124	158	166*

*Estimate

215. The Campidano di Cagliari, which forms the southern part of the plain, is about 70 km. long and 30 km. wide (210,000 ha.). About 50,000 ha. in the center part of this area will be irrigated as a result of this project. The terrain is, as a whole, very flat, but there is an east-west saddle in the middle of the plain, from which the land slopes slightly in northwest and southeast directions. Furthermore, each part slopes to its north-south axis. This topography determines the general layout of the distribution system.

216. 2. The soils: Nearly the whole of the irrigable area consists of alluvial soils. Somewhat less than 10,000 ha. are light and sandy; 30,000 ha. are loams to medium clay loams; and over 10,000 in the center are clay loams to heavy clay loams. Works to improve the drainage of these lands are under way.

217. All over the plain the surface soil is deep and easy to cultivate, and there are not as many rocks and stones as in many other areas in Italy. In general, the soils in the eastern part are more fertile and have a better structure than those in the western part of the plain. Some of the soils in the west contain a considerable amount of gravel. Because of primitive cultivation during many centuries, most plots are deficient in nutritive elements. If adequate quantities of water are supplied, liberal applications of nitrogenous and phosphate fertilizers will be necessary. Some soils in the eastern part will require liming.

218. 3. The climate: The region has the typical Mediterranean climate, with warm dry summers, and wet cool winters. The average precipitation is 500 mm, of which only 130 mm fall in the growing season (April-September). As a rule the temperature does not drop below 0°C. There are often strong winds, so that the planting of trees for windbreaks is advisable.

219. 4. Land-use: About 60% of the land in the Campidano is used for crops, 6% is in orchards (mainly lemons and almonds), 30% is used for extensive pasturing of sheep, and 4% is used for non-agricultural purposes.

220. 5. Size of farms: Land holdings in the administrative area of Sardinia which most closely corresponds to the project are the following size:

	No. of Owners	No. of hectares x 1,000	in %
Less than 10 ha.	22,640	25.3	45
10-100 ha.	830	20.8	37
Over 100 ha.	40	10.5	18
	23,500	56.6	100

It is estimated that about 80% of the units of less than 10 ha. are smaller than 2 ha. These small units cover probably some 8,000 ha.

221. A great number of the very small farmers earn only part of their living on their own "farm". Economically these farms are of little importance now, but after irrigation they will become potential producers of vegetables. The middle-sized farms of between 10 and 100 ha. occupy about 1/3 of the area. The smaller ones in this group are family farms, but the larger ones employ hired laborers, mainly from the very small farms. Finally, there is a small number of large farms. They are economically not of great importance since most of their land is used for extensive sheep-grazing. A number of small holdings in the southern-central part of the plain are badly split into uneconomic lots. Some form of redistribution of land will be necessary before an economic system of irrigation can be established in this area.

222. 6. Land tenure: About 60% of the land is in freeholdings. More than half of this area, or 35% of the total, is owner-operated, mainly in small farms. The rest is farmed with sharecroppers of employees. Several forms of leaseholds cover the remaining 40% of the land. Half of this area is operated by renters, as family farms, and the other half with sharecroppers or employees.

223. In the project area, land reform activities are the responsibility of the Ente Flumendosa. About 2,500 hectares have been expropriated, and 4,700 hectares will be purchased by the Land Reform Section of the Ente in order to establish viable farms.

224. Under present water supply conditions, the area has a surplus of labor, although the situation is not as bad as in certain regions of the mainland.

225. 7. Value of production: About 33,000 hectares of the 50,000 ha. in the project area are now used for crop production. Due to lack of water, about 7,000 ha. of the crop area have to be kept fallow, yields on the rest are low and there are no second crops. The main crops are wheat and beans. There is also some production of grapes, olives, almonds and citrus (lemons). This last crop is grown on small irrigated plots, with good results.

226. The average gross value of production is estimated at Lit. 74,000 per hectare (fallow included) and the total for 33,000 hectares at Lit. 2,432 million. A small part of the crops is used on the farms, reducing the gross value of saleable production to about Lit. 2.3 billion.

227. Livestock production is mainly based on extensive sheep grazing. Cattle raising is done on a limited scale, but there are some very good cattlemen who have imported good breeding cattle. The value of average production is estimated at Lit. 9,000 per hectare. The total for 15,000 hectares presently devoted to livestock production is Lit. 135 million. Thus the total gross marketable value of present agricultural production is estimated at Lit. 2.4 billion annually.

228. 8. Improvement in farm technique: Despite the very limited possibilities at present there is a very clear attempt to improve farming methods. The importation of good cattle, mentioned above, is an indication. The increase in number of tractors in the province of Cagliari from 300 in 1949 to 2,000 in 1954 is another one. On the other hand, the consumption of fertilizer is still relatively low.

229. The improvement in farming methods is in no small measure the result of an intensive campaign of education and demonstration urged by the field service of the Ministry of Agriculture. The Inspector of this service (now Advisor to the Regional Government) has established a close working relation with the farmers and their organizations.

230. In order to provide for the rapid and correct future application of irrigation water, the Ente Flumendosa has organized two sets of three experimental fields. These fields are in their fourth year of operation, and the records of the experiments give important indications as to how to use irrigation in the project area.

231. 9. Marketing and transportation: The present limited production of the area does not require elaborate processing and marketing facilities. However, there is in the region an active "Consorzio Agraria" (farmers' co-operative), and there are in the province of Cagliari two tomato processing plants, two modern dairies and two cotton gins. The nearby sugar mill of Oristano has surplus capacity.

232. The area has very good transportation facilities. However, costs of transportation between Sardinia and the mainland are high, mainly because of high handling charges in the ports. The central government is considering the establishment of a ferry service between Sardinia and the mainland with boats that can carry railroad cars and/or trailers. This would eliminate costly handling of produce in the ports and improve the competitive position of Sardinia considerably with respect to continental markets.

C. The Project

233. The Project includes irrigation and river control works, buildings, and electric lines to serve a total area of about 50,000 hectares (Appendix 29). The works are designed to permit future power development. The principal items are as follows:

(1) Flumineddu Dam

The Flumineddu dam will be 68 meters high and will create a reservoir with a useful capacity of 32 million cubic meters.

(2) Flumineddu - Flumendosa Tunnel

The Flumineddu reservoir will supply the reservoir created by the Flumendosa dam, described below, through a pressure tunnel 9.2 kilometers long and 4 meters in diameter.

(3) The Flumendosa Dam

An arch-gravity type dam, 120 meters high (330,000 m^3 of concrete) will form a reservoir with a useful capacity of 250 million m^3. The dam to be completed by December 1957 will also provide flood control for the lower Flumendosa valley.

(4) Flumendosa-Mulargia pressure tunnel

A 5.9 km long pressure tunnel 4 meters in diameter will connect the Flumendosa reservoir to the main reservoir of Mulargia. It is expected to be completed by September, 1957.

(5) The Mulargia Dam to be completed by December 1957, is of the arch-gravity type and will be 100 meters high (240,000 m^3 of concrete). It is designed to create a reservoir with a useful capacity of 310 million m^3 for additional storage.

(6) A 9.9 km long diversion tunnel to be completed by December 1957, will carry water from the Mulargia reservoir to the plateau which extends between the Flumendosa basin and the Cagliari plain. Before entering the gallery, the pressure of the water will be dissipated through valves or a hydro plant (UVINI). This plant to be built later will produce annually 25 GWH 1/. The hydro plant is not part of the present project, and there has been no final decision as to who will build and operate it. Water will flow freely through the tunnel which has a capacity of 54 m^3/sec. 2/

(7) Trans-plateau canal and Trexenta-Senorbi irrigated area

A 14.6 km long concrete lined canal to be completed by April 1957, and 2.2 km of tunnels with a capacity of 54 m^3/sec. will carry the water from the exit of the diversion tunnel across the plateau to the edge overlooking the plain. From this canal, water will be taken to irrigate an area of 1,200 ha. near the village of Senorbi.

(8) Step-down structures

The water will step-down from the plateau elevation of 190 meters to the plain level of 90 meters through a system of tunnels, penstocks, regulating valves and spillways. These structures will be completed by March 1958. A hydro plant, with upstream and downstream regulating basins will later use this drop in elevation to produce annually 64 GWH. It is not a part of the project submitted to the Bank.

1/ 1 GWH equals 1 million kwh.

2/ These items are over designed since the required flow amounts to only 31 m^3/sec. This design was adopted and construction under way before the execution of the project became the responsibility of the Ente de Flumendosa.

(9) Main canals and network

The complete network, corresponding to the ultimate irrigation of 50,000 ha. consists of the following system of canals:

a) A connecting canal 2 km long, (capacity 31.6 m^3/sec.) will bring water from the step-down structures into a system of five main canals;

b) The northeastern branch (25 km long, upstream capacity 5.8 m^3/sec.) and the southeastern branch (45 km long upstream capacity 9.5 m^3/sec.) will carry water along the eastern limits of the irrigated area;

c) The transverse canal (5 km long, upstream capacity 16.1 m^3/sec.) will follow the crest of the saddle forming the dividing line of the plain to carry water across to the two western branches;

d) The northwestern branch (26.6 km long, upstream capacity 4.8 m^3/sec.) and southwestern branch (34 km long, upstream capacity 10.2 m^3/sec.) will carry water along the western limits of the irrigated area. The water will have to be pumped up 14 meters to the altitude of the northwestern canal which is at a higher elevation than the terminal of the transverse canal;

e) The secondary and tertiary canals serving the "Commizzi" (areas within which the permanent flow from the incoming canal is rotated from farm to farm) will amount to about 500 km;

(10) A system of levies, drainage canals, and structures will protect irrigated areas against floods from a number of streams which traverse the plain.

(11) The project includes roads, windbreaks, aqueducts for drinking water and miscellaneous structures to be built to serve the irrigated area. The road system will be about 750 km long, and 1,500 km of windbreaks will be planted.

The project will also be used to supply water to the new Cagliari Aqueduct presently under construction. The aqueduct is not a part of the project submitted to the Bank.

234. For the total irrigated area of 50,000 ha., using 6,400 m^3 per hectare, an average of about 320 million m^3 of water annually will be needed, which will come from the following sources:

Flumendosa	210	million	m^3	
Flumineddu	90	"	"	
Mulargia	30	"	"	
Total	330	"	"	
	-10	"	"	For the Cagliari Aqueduct
	320	"	"	

These are net amounts, taking into account evaporation losses of 10%. They represent mean flows based on 25 years of measurements at six stations on the Flumendosa and one station on the Flumineddu. For the Mulargia River they are based on correlation estimates. If further experiments indicate that only 4,600 m^3 per hectare would be adequate, which may be the case, this volume of water could be supplied without the need for the Flumineddu dam and reservoir and the connecting tunnel to the Flumendosa reservoir. However, in the appraisal of the costs of this project, it has been assumed that these works will be required.

D. Organization and Management

235. The responsibility for the design and construction of the irrigation works rests in the first instance with the Ente Autonomo del Flumendosa. The Cassa per il Mezzogiorno has, however, to approve each of the plans and it supervises the construction. The Ente Autonomo del Flumendosa was founded in 1946 for the purpose of constructing the works required for the use of the Flumendosa waters for irrigation, drinking water and electric power production. The headquarters of the Ente are in Cagliari. The General Manager is Engineer Serafini, formerly on the Board of the Cassa before he was appointed to the Flumendosa Project.

236. The Ente also takes care of the financial administration of the project, under the supervision of the Cassa. The Sardinian Land Reform Agency has delegated to the Ente the responsibility to carry out land reform within the area of the project.

237. The Ente Autonomo del Flumendosa is well managed, well equipped and staffed with capable and competent officers. However, the Ente staff should be reorganized to emphasize more the irrigation and agricultural aspects of the project rather than the construction of dams. The Ente has already obtained the help of consultants for the general layout of the network, and it is probable that such help should be continued

for the detailed designs of the irrigation works. The Ente has also already organized an Agricultural Division which will, in cooperation with the Government Extension Service, educate the farmers in the use of irrigation water. The results of the experimental fields (see B. 8) will be of great help in these activities.

238. The responsibility for the drainage, road building and electrification works in the plain rests with eight Consorzi. These are organizations of landowners, established for the purpose of constructing and operating reclamation works. They are endowed by the Government with regulative powers. The eight Consorzi are united into the Amalgamated Consorzi of southern Sardinia. The offices of this organization are also in Cagliari. This organization is competent.

239. According to law the Ente Flumendosa may reorganize itself upon completion of the construction works into a so-called Second Degree Consortium (Federated Consortium). This legal form of organization is suited for the operation and maintenance of irrigation works.

240. The Ente will charge the landowners according to a formula based on the benefits of various kinds which the owner receives from the irrigation, drainage and road works. These charges have the status of Government taxes and they have, in case of bankruptcy, preference over other debts. On average, the charge will amount to about Lit. 24,000 per hectare.

E. Status of Construction Work and Construction Schedule

Status of Work

241. 1. The Flumendosa Dam was started in June 1953. It is being built by the "Societa Italia per Condutta Acqua" which is one of the best civil works contractors in Italy. In March 1956, the diversion tunnel and the excavations were completed, and 30,000 m^3 of concrete had been poured out of a total of 330,000 m^3. The enterprise is also building 800 meters of the outlet of the future Flumineddu tunnel.

242. 2. The connecting tunnel is being built by the "Fratelli Bullio". The excavations are completed. The final lining has not started.

243. 3. The Mulargia Dam is in the same state as the Flumendosa Dam, although it was started two years earlier. The construction is done by the "Sogene Company". In March 1956, the diversion tunnel and the excavation were completed, and 30,000 m^3 of concrete had been poured, out of a total of 240,000 m^3.

244. 4. The free level diversion tunnel is being built by the "Ing. di Penta" enterprise. Out of a total length of 9,900 meters, 6,500 are lined and 1,700 are excavated.

245. 5. The trans-plateau canal is also being built by the "Ing. di Penta" enterprise. The galleries are completely excavated. Out of a total of 14.6 km., 3.5 km. of the canal are completed, 7.5 km. are pre-lined and 3.6 km. are excavated.

246. 6. The step-down structures are in the stage of preliminary design and have still to be approved by the Council of Public Works and by the Cassa.

247. A tentative decision for the outlay of the main features of the network was reached in April 1956, at the request of the Bank, and decisions will be reached by the Cassa and the Council of Public Works by the end of 1956. The detailed designs will be prepared by lots of 5,000 ha. to be completed annually, starting in June 1957.

Construction Schedule

248. According to information submitted by the Ente de Flumendosa through the Cassa, the completion date of the works are as follows:

(a)	Flumendosa Dam	December 1957
(b)	Connecting Tunnel	September 1957
(c)	Mulargia Dam	December 1957
(d)	Diversion Tunnel	December 1957
(e)	Trans-plateau Canal	April 1957
(f)	Step-down Structures	March 1958

The main canals and network will be built in order to allow irrigation of 5,000 ha. per year, starting in the summer of 1958. By June 1962, the date which the Cassa is supposed to cease its activities, 20,000 ha. will have been brought under irrigation. If needed, the Flumineddu Works will have to be started in 1962 to be in operation in 1965.

249. This schedule is realistic providing prompt decisions are taken by the Council of Public Works and the Cassa for the outlay and design of the step-down structures, the main canals and the network. Adequate designing and construction facilities will be necessary for those works, which constitute the bottleneck of the project.

F. Cost Estimates of Public Works

250. For the Flumendosa and Mulargia dams, the tunnel connecting their reservoirs, the diversion gallery and the trans-plateau canal, the cost estimates are based on actual contracts. For the Flumineddu Works, the step-down structures, the main canals, the network, river control, drainage works, etc., the estimates are based on experience with similar works elsewhere. The estimates include a contingency provision of 10%. This is adequate since the firm prices of the main works compensate for the approximate nature of the cost of the other works. The provision for overhead and engineering and supervision of 8% is satisfactory. The following table shows the estimate for each category of works:

		Million $ Equivalent	Million Lire
1.	Flumendosa Dam	(13.18)	8,240
2.	Flumendosa-Mulargia Tunnel	(2.74)	1,715
3.	Mulargia Dam	(7.40)	4,625
4.	Diversion Tunnel	(5.15)	3,220
5.	Trans-plateau Canal	(3.94)	2,460
6.	Step-down Structures	(1.74)	1,085
7.	Main Canals and Network - 50,000 ha.	(26.81)	16,755
8.	River Control and Drainage	(5.29)	3,309
9.	Roads, Windbreaks	(3.47)	2,173
10.	Miscellaneous	(2.19)	1,370
11.	Flumineddu Dam	(5.60)	3,500
12.	Flumineddu-Flumendosa Tunnel	(4.96)	3,100
	sub-total	(82.47)	51,552
	Interest of 5% on proposed IBRD loan during 3 years' grace period	(2.50)	1,562
	Total	(84.97)	53,114

251. The total expenses for public works would amount to about Lire 53.1 billion ($85 million equivalent) for a total area of 50,000 ha. Not making any adjustment for that part of the cost of dams, tunnels and canals which could be allocated to power, the capital cost of the public works of the project in its final stage will be the equivalent of $1,700 per hectare which is relatively high.

252. In addition to the costs of public works, the farmers of the region and the Government will spend considerable sums to adjust the farms to the new conditions. These sums are estimated in Section H. They amount to:

Lit. 19.3 billion for improvement of real estate
7.5 " " farm requisites
1.75 " " increasing in working capital

Lit. 28.55 billion

253. The Government will subsidize the investments of the farmers by providing Lit. 12 billion of the Lit. 19.3 billion required for improvement of real estate.

G. Schedule of Expenditures

254. The schedule of expenditures for public works included in the project would be as follows (without interest on proposed IBRD loan):

Year	Million $ Equivalent	Million Lire
Spent before 1956	(14.28)	8,924
1956	(9.68)	6,049
1957	(12.51)	7,816
1958	(4.23)	2,645
1959	(4.21)	2,631
1960	(3.99)	2,493
1961	(2.00)	1,247
1962 1/	(1.87)	1,169
Sub-total (during life of Cassa)	(52.77)	32,974
1963	(7.60)	4,760
1964	(8.10)	5,060
1965	(5.22)	3,260
1966	(3.45)	2,160
1967	(3.45)	2,160
1968	(1.88)	1,178
Sub-total 1963-1968	(29.70)	18,578
Total	(82.47)	51,552

1/ End of the Cassa's activity unless its life is extended.

H. Total Investments and Sources of Funds

255. 1. Public Works: The Flumendosa Project involves the heaviest investment of any irrigation project financed by the Cassa to date. Definite financial plans so far are limited to the initial part of the project to be carried out during the existence of the Cassa and with its assistance but contractual assurances have been obtained from the Italian Government that the additional funds required for the period 1963-1968 to complete the project will be provided.

256. The cost of the public works to be constructed during the life of the Cassa, or before July 1962, is to be divided between the Cassa (about 92%) and the Ente Flumendosa (about 8%) according to the following amounts (including interest on the proposed IBRD loan):

	Million Lire
Cassa	31,821
Ente Flumendosa	2.715
Total	34,536

The contribution of the Cassa is higher than the 87.5% normally comitted by the Government for the irrigation works, because part of the costs of the dams has been allocated to flood control.

257. The Lit. 31,821 million to be invested in the project by the Cassa can be broken down as follows:

	Million Lire
Invested before 1956	8,200
From annual Government allocations	7,996
Proposed IBRD loan $25 million	15,625
Total	31,821

258. It is proposed that the Bank loan would be used to meet the bulk of the payments falling in the years 1956, 1957 and 1958. This amount would include interest on the proposed IBRD loan for these years, amounting to about Lit. 1,562 million ($2.5 million equivalent). The part of the loan allocated to Flumendosa would amount to 49% of the cost of the public works to be constructed during the life of the Cassa.

259. Out of Lit. 2,715 million which the Ente Flumendosa is committed to contribute, Lit. 725 million had been paid on January 1, 1956. Some of the Ente contributions may be raised from the resources of the landowners, but most of it is likely to be borrowed from one of the banks designated by the Government to handle this type of borrowing, at an interest rate of 5.8% on a fifteen-year term. The service of this debt will be collected by the Ente from its members by way of assessments.

260. For the period 1962-1968 which extends beyond the normal life of the Cassa, the Government is committed to contribute to the cost of the works by the law under which the Ente Flumendosa was established. Assuming that the cost of the works to be constructed after 1962 would be divided according to the same ratios as before 1962, the contributions would be as follows:

	Million Lire
Government	17,098
Ente Flumendosa	1,480
Total	18,578

For the Public Works of the entire project the sources of finances would be as follows (including interest on the proposed IBRD loan):

	Million Lire
Cassa and Italian Government	48,919
Ente Flumendosa	4,195
Total	53,114

261. 2. Private Works: The amount to be invested by farmers in their farms, in order that they can reap the benefits of the availability of irrigation water, can only be roughly estimated. The actual amounts to be invested depend largely on the decisions of many thousands of landowners, although the Ministry of Agriculture may declare a certain crop pattern compulsory.

262. The following estimates are based on the experience gained with other similar operations in Italy. The results of these experiences have been modified according to the specific local conditions (for details see Annex 26).

a. Improvement of real estate:

	Per Hectare ('000 Lire)	No. of ha.	Total (Million Lire)
Land improvement	290	50,000	14,500
Planting of trees	360	6,000	2,160
Buildings	300	30,000	9,000
			25,660

The farmers will receive support in the financing of these improvements. They can either receive a straight grant of 38% of the investment, or a combination of grant and low interest loans. In the latter case, which most farmers choose, the grant will cover 20-22% of the investment, and a 15-18 year loan is obtained to cover an additional 60%, the balance to be covered by the farmers' own resources. The interest rate charged by the banks for these loans is 5.5%, of which the State pays 2.5% and 3% is paid by the farmer. The accumulated interest subsidy represents an amount which results in a total Government contribution to these private works of 38% of Lit. 23.5 billion, or Lit. 9 billion. Because of obligations to the land reform area of 7,000 ha. within the project region, Government investments will reach a total of Lit. 12 billion.

263. The farmers will be able to meet part of the labor requirements involved in the works with their own, otherwise unused, forces. It is estimated that this factor would represent a value of 25% of the total investments. Total money investments should therefore be about 75% of Lit. 25.7 billion, or Lit. 19.3 billion. The Government grant will take care of Lit. 12 billion, and the farmers will receive loans at 3% interest for the balance.

b. Increase in farm requisites:

264. This item includes the purchase of machinery and tools, and the increase in livestock, which will partly be obtained by breeding on the farm. It is estimated that these investments will amount to about Lit. 150,000 per ha. On the basis of 50,000 ha., a total of Lit. 7.5 million would be required. Credits from the Revolving Fund of the Ministry of Agriculture are available for purchases under this category.

c. Increase in working capital:

265. Farmers will need more money for the purchase of materials, payment for services and for wages, if they intensify production. This item is estimated at Lit. 35,000 per hectare. The Consorzio Agraria takes care of part of the need for credit for this category of payments, by selling farm materials on time payments. The total increase in working capital would, on this basis, be Lit. 1.75 billion.

266. The total investment of farmers will be Lit. 4.19 billion in Public Works and Lit. 28.55 billion in private works, of which Lit. 12 billion is covered by the Government grant. Therefore private investments will be Lit. 16.55 billion.

267. For estimates of costs of production, a distinction has to be made between investments in a hectare of citrus grove and a hectare for mixed farming. Total investments and the rules covering Government grants are different for these two cases. These rules and estimates work out at a private money investment of Lit. 350,000 for a hectare used for mixed farming, and Lit. 585,000 for a hectare under citrus (for details see Annex 26).

268. The total investment in the project can be estimated at Lit. 81.6 billion (Annex 25), including interest on the proposed IBRD loan.

Public Works	Lit.	53.1 billion
Private Improvements		28.5 "
Total	Lit.	81.6 billion

The Government will contribute Lit. 60.9 billion and the farmers Lit. 20.7 billion.

I. Transformation of Agriculture

269. The completion of this project will result in a substantial increase in the value of agricultural production. Not only will the yield of crops per hectare of crops already grown be much greater, but the farmer will also plant a larger area with valuable crops and about half of the crop area will carry two crops per year as compared with one at present. The production of industrial crops, as sugar beets, tobacco and probably cotton will be increased. This will also be the case with the production of lemons and of vegetables. There will be 6,000 ha. under citrus trees. About 30% of the area will be

used for fodder production, and there will be a shift from sheep-farming to cattle-farming. The value of crop production will increase from Lit. 74,000 per hectare to Lit. 250,000 per hectare for non-citrus crops, and to Lit. 800,000 for citrus groves. The total gross value of crop production will be Lit. 11.5 billion per annum. These estimates of the expected increase in value of production are based on:

(1) results attained by progressive farmers in the region who have installed irrigation privately;

(2) results of the experimental fields of the Ente Flumendosa;

(3) comparison with results in other similar regions.

270. The value of livestock production will be estimated at Lit. 200,000 per hectare. This is an enormous increase if compared with the present value of production (Lit. 9,000 per ha.). However, it should be realized that the estimated future value of production is not high, if it is compared with values for other irrigated areas, which have richer soils than Sardinia. Livestock fodder will be produced on 15,000 hectares as a year-round crop, and on 11,000 hectares as a second crop. The quantity produced as a second crop is the equivalent of 3,000 hectares year-round production. Therefore fodder will be produced on the equivalent of 18,000 hectares, and the gross value of production will be Lit. 3.6 billion. 1/ The total of gross value of farm production will be Lit. 15 billion.

271. A comparison between the old and the new situation is given below:

	Before	After	Difference
Area for livestock (ha.)	17,000	15,000	- 2,000
Area for saleable crops (ha.)	33,000 2/	35,000 3/	+ 2,000
Area cropped twice (ha.)	-	15,000 4/	+ 15,000
Gross value of production:			
Per hectare saleable crop ('000 Lit.)	74	335 5/	+ 261
Per hectare used for livestock ('000 Lit.)	9	200	+ 191
Total saleable crops (billion Lit.)	2.3	11.5	+ 9.2
Total livestock (" ")	0.15	3.6	+ 3.45
Total general (" ")	2.4	15.1	+ 12.7

1/ The Ente estimates the value of livestock production at Lit. 8.5 billion. Although it is possible that farmers will reach this high level in the long run, it is safer to calculate for the foreseeable future a production of 4,000 litres milk and 200 kg meat per hectare. This amounts to Lit. 3.6 billion for the project area.

2/ Of which 7,000 ha. fallow land

3/ Of which 1,000 ha. unused

4/ Of which 11,000 for fodder

5/ About Lit. 250,000 for non-citrus crops only.

J. Benefits of the Project

1. Benefits to the Farmer

272. The financial results of the transformation will of course differ with the type of farming that is practised. The value of gross production under mixed farming conditions should be Lit. 250,000 per hectare and for citrus groves Lit. 800,000. This means that under mixed farming conditions, gross production would more than triple. However, costs will also increase. The farmer will have to buy more fertilizers, seeds, fodder, equipment, etc., and he will moreover have higher capital costs. He is expected to invest about Lit. 350,000 per hectare (see H.2).

273. Labor costs will also be higher since the intensive future form of farming will require many more labor days per hectare than present practice. The number of man-days should increase from 25 to 109 per hectare. Finally, the dues to the Ente, which are now very low, will increase to Lit. 24,000 per hectare. The result of all these changes will be as follows: 1/

	Per Hectare		For total area under mixed crops 2/	
	Before	After	Before	After
	('000 Lire per hectare)		(billion lire)	
Gross product (mixed farming)	48	250	2.1	11.0
Costs of goods and services	11	70	0.5	3.1
Net product	37	180	1.6	7.9
to labor	25	109	1.1	4.8
to capital	5	20	0.2	0.9
to taxes	3	15	0.1	0.7
Profit	4	36	0.2	1.6

No separate calculation has been made for citrus groves. But given the fact that gross product of one hectare under citrus is more than three times as high as for mixed farming, whereas costs do not increase pro rata, it is obvious that citrus farming will be very profitable.

274. The gross value of production of the citrus groves is estimated at more than Lit. 4 billion. In the absence of separate cost figures, it is assumed that (as in the case of mixed farming) about one quarter of gross production will become available as interest, dividend and net profit; that would be a sum of Lit. 1 billion.

1/ See Appendix 27 for details.
2/ 44,000 hectares (excluding citrus).

275. Total revenue for private capital and profit would be Lit. 2.5 billion from mixed farming plus Lit. 1 billion from citrus growing, or Lit. 3.5 billion. 1/ This would be 17% on private money investment (Lit. 20.7 billion, see H. 2c).

2. Benefits to the Region

276. The impact of the project on the economy of the region will be very significant. The increase in farm production by a value of nearly Lit. 13 billion will provide additional business to traders, processors, transporters of agricultural commodities, as well as to those who supply the farmers and the farm population with goods and services. It is quite possible that, as a result of these additional activities, regional income will increase by one and a half times the increase in farm production, or by Lit. 19 billion.

277. The project will also have a favorable influence on employment. The number of man-days in agriculture alone will increase from about 1.3 million to 5.5 million per year. This is the equivalent of nearly 17,000 full-time jobs, but it should be noted that most of the additional man-days will be worked by hitherto underemployed people. Moreover, there will be more employment in trade, transportation and in processing industries. In addition to the increase in regional income and employment, the project will protect the lower Flumendosa Valley in the east coast of Sardinia from floods. If the power plants are completed, it will allow the annual production of 89 million kwh as a by-product of irrigation. However, this power will be produced mainly in summer, during the irrigation season, and it may prove difficult to sell.

278. The Flumendosa irrigation project is not one of the most attractive units in the Cassa program with respect to the ratio between benefits and costs. Economic and social considerations in the absence of other opportunities make it desirable, however, to develop agriculture on Sardinia. Irrigation is a basic requirement for such a development on an island where precipitation is low and badly distributed. Irrigation of the Cagliari plain is the only possibility for irrigated agriculture on a large scale.

3. Benefits to the Government

279. The value of gross saleable production of agriculture on Sardinia was in 1954 estimated at Lit. 76.5 billion. Direct taxes on agriculture resulted in that year in a revenue of Lit. 1.072 billion, or 1.4% of gross product as an average for the island. The Campidano di Cagliari is however somewhat more prosperous than the rest of the island. It is assumed that the level of direct taxation in the project area will be somewhat higher than the average of the island, or about 2% of gross product.

1/ This amount is the sum of:

a)	share of net product of net farming going to capital	Lit. 0.9 billion
b)	net profit of mixed farming	1.6 "
c)	share of capital, and net profit of citrus farming	1.0 "
		Lit. 3.5 billion

280. Indirect taxes on agriculture are about 12% of gross product. The total tax revenue will therefore be assumed to be 14% of gross saleable product of agriculture in the project area. It has been estimated before that the gross value of production would increase by Lit. 12.7 billion. Consequently, Government revenues will increase by 14% of Lit. 12.7 billion or by about Lit. 1.8 billion (about Lit. 250 million in direct taxes and Lit. 1.55 billion in indirect taxes).

281. The Government will also earn an interest of 3% on the loans it made to farmers (Lit. 7.3 billion) amounting to a sum of Lit. 0.22 billion. The overall increase in Government earnings will be Lit. 1.8 billion from taxes and Lit. 0.22 billion from interest, or Lit. 2.0 billion.

282. Total Government investments will be Lit. 48.9 billion in public works and Lit. 12 billion in private works or Lit. 60.9 billion. The increase in revenue is 3% of Government investment. The percentage would of course be considerably higher if we take account of the multiplier effect of the increase in farm production.

4. Return on Total Investment

283. Total investment will be Lit. 81.6 billion, of which Lit. 60.9 billion will be contributed by the Government and Lit. 20.7 billion by the farmers. Revenue on total investments will be Lit. 3.5 billion plus Lit. 0.22 billion, or Lit. 3.72 billion, which is 4.5% of total investments.

5. Benefits to the External Economy

284. The transformation of agriculture in the Campidano di Cagliari will affect foreign trade of Italy in two ways; through certain import savings and an increase in the quantity of goods offered for export.

285. Import savings will result from the expanded production of wheat, sugar and tobacco. These three products are considered essential by the Italian consumer. If there were no increase in production, imports would have to fill the gap between demand and present production. The increase in supply in milk and meat will be absorbed in the internal market, and result in a higher per capita consumption. The value of import savings is estimated at Lit. 2.1 billion per year.

286. There will be greatly increased quantities of citrus, tomatoes and vegetables available for export. Also there will be an increase in the production of cheese, grapes (or wine) and almonds, which may be offered for export. These products have been eliminated from the estimated returns because their values are small and data are not reliable. Moreover their value will balance more or less the value of the decrease in production of pulses and cereals other than wheat. With respect to tomatoes, vegetables and lemons, it is assumed that 1/3 of the increase in production will be offered for export. The European markets are considered to be able to absorb these quantities without difficulties. The value of the increase in exports on the basis of export, rather than farm prices, is estimated at Lit. 4.6 billion. The overall effect on the balance of trade will be favorable and in the order of Lit. 6.6 billion or U.S.$10 million per year (see Annex 28).

K. Conclusions and Recommendations

287. The Flumendosa irrigation project is well-designed to bring into full production an area of 50,000 ha. A comparison between total investments and increase in farm production shows however that the project is expensive. The sum of public and private investments is estimated at Lit. 81.6 billion. Agricultural production is expected to increase annually by Lit. 12.7 billion. The ratio between total investment and increase in farm production is 6.4 to 1. This ratio includes the cost of the Flumineddu works which may not be necessary and it does not reflect the benefits derived from flood control and power production.

288. Revenue on total money investments has been estimated at 4.5% which is low but still satisfactory. Revenue on Government investments is low (3%) but the transformation of agriculture will be very profitable for the farmers (revenue on their money investments is 17%) so there is every reason to believe they will make the investments necessary for the project to be carried out. In judging the project, one should, moreover, keep in mind that this irrigation scheme is the only large single opportunity to strengthen the agricultural economy of the island of Sardinia.

289. The Cassa and the Ente Flumendosa are responsible for the execution of the project. The Ente Flumendosa is well-organized and competent, mainly in the field of civil engineering works. The construction cost estimates are reasonable. The construction schedule is realistic provided the administrative formalities and the final designs of the network and connecting structures are carried out promptly. The arrangements for financing the public investment and the credit facilities available for the private investment are satisfactory until 1962. An undertaking has been obtained from the Government for the completion of the project in the unlikely event that the Cassa should cease to exist after 1962 as is presently provided by law.

290. The project is suitable for Bank financing. An amount of $25 million, to be drawn during the three years 1956-1958, would be appropriate.

V. POWER PROJECTS

A. General

291. The program financed by the Cassa with Government appropriations does not include power projects. The loan of $70 million made by the Bank to the Cassa in 1955 included $30 million for power because the expansion of power facilities was essential to full economic development of the Cassa area. Power is again an appropriate field for consideration by the Bank in 1956.

292. The total installed capacity in Italy at the end of 1955 was about 12.9 million kW which, in that year, produced about 38.2 billion kWh. In the Cassa area, which contains 37.5% of the total population of Italy, the installed capacity was about 1.6 million kW which produced about 4.9 billion kWh (13% of total for all Italy).

293. Six expansion programs to be carried out by companies operating in the Cassa area have been submitted for Bank consideration. Out of this group, three projects were selected, since they had priority in the Cassa area. They are to be carried out by three power companies: Societa Idroelettrica Alto Liri (Romana group), the Tifeo Company (a subsidiary of the Societa Generale Elettrica della Sicilia), and the Societa Meridionale de Elettricita, (SME). These companies now have an installed capacity of about 1.08 million kW and an annual production of about 3.6 billion kWh serving Sicily and practically all of continental southern Italy except for the region east of Rome (See Annex 30). The projects proposed for financing would add 217 MW[1/] to installed capacity and increase annual generation by some 835 GWH[1/].

294. The following appraisal of the three companies and of the projects proposed for financing with Bank funds is based on information supplied by the companies and on field investigations carried out in March and April 1956.

B. Societa Romana di Elettricita (SRE) and Societa Idroelettrica di Alto Liri (SIAL)

1. Introduction

295. This section of the report covers an appraisal of the power project submitted by Societa Romana di Elettricita (SRE) for Bank financing. The proposed borrower would be the Societa Idroelettrica di Alto Liri (SIAL), a subsidiary of SRE.

1/

Biagio	3.1	MW	and	30	GWH
Ponto Corvo	22	"	"	85	"
Augusta	140	"	"	620	"
Bussento	52	"	"	100	"
	217.1	"	"	835	"

1 GWH equals 1 million kWh

2. The Borrower (SIAL)

296. SIAL was founded in 1947 by SRE for the purpose of developing the hydro-electric resources of the Cassino region. Its share capital at present amounts to Lit. 2 billion of which 98% is owned by SRE. The remaining 2% is owned by "La Centrale," a private holding company which controls SRE. SIAL is completely dependent on SRE as far as its financing is concerned. At the end of 1955 it was indebted to the parent company for Lit. 8.4 billion for advances received. In addition it had a small long-term debt outstanding of Lit. 0.4 billion. Its total debt to equity ratio was very high (82/18). SIAL's total assets amounting to Lit. 11.2 billion consisted mainly of fixed assets which amounted to Lit. 10.6 billion (depreciated book value). SIAL's present facilities are all being operated by its parent company on a lease basis. It is contemplated that the two projects submitted for Bank financing will also be operated by SRE on a similar basis.

297. The proposed loan to SIAL by Cassa out of Bank funds would be guaranteed by SRE and "La Centrale." The type of guarantee to be given by these companies will not only cover the repayment of the loan but also the covenants in the project agreement regarding performance during the life of the loan. In view of this broad guarantee and the fact that SRE has agreed to maintain a majority holding in SIAL's share capital, the particular financial position of SIAL is of no special significance. Also, in view of the fact that SIAL has no independent operating existence of its own, the appraisal in this report will be made for the consolidated position of SRE and SIAL combined.

3. Societa Romana di Elettricita (SRE)

298. The Societa Romana di Elettricita (SRE) has its origin in the former Anglo Romana Company, by whom it was founded as a subsidiary in 1901, in the form of a limited partnership corporation. Subsequently (in 1910) SRE was converted into a joint stock company, with an initial capital of Lit. 300,000. Its share capital has been increased various times over the years to the amount, as of April 1956, of Lit. 26.2 billion, fully paid in.

299. In 1925 "La Centrale," a utility holding company acquired control and now owns about 48% of SRE's shares. The distribution of SRE's shares at the end of 1955 was as follows:

	%
La Centrale	47.7
Montecatini	2.6
Banco Nazionale del Lavoro	1.5
Banco di Roma	1.2
Credito Italiano	1.2
Others (approximately 8,000 shareholders)	45.8
	100

300. "La Centrale"[1] has a strong financial position with a net worth in excess of $60 million equivalent. It is privately owned with holdings in a large number of companies, of which the most important are the following three companies:

	Field	Share Capital (Billion Lire)	Owned by "La Centrale"
Romana di Elettricita (SRE), Rome	Power	26.2	48%
Selt-Valdarno (SESV), Florence	Power	26.4	50%
Societa Telefonica Tirrena (TETI), Rome	Telephones	20.2	50%

301. Consolidated net assets of SRE and SIAL at the end of 1955 amounted to Lit. 63 billion ($100.8 million) of which 78% was represented by fixed assets. The balance sheet given in Annex 31 shows a satisfactory financial position. The capital structure consisted of Lit. 36.4 billion ($58.2 million) equity and Lit. 15 billion[2] ($24 million) debt, representing a total debt to equity ratio of 28/72. Successive revaluations have been authorized by law in the post-war period which have resulted in a net write-up of assets of about Lit. 27 billion ($43 million) of which Lit. 17.7 billion ($28.3 million) has been converted into share capital by the issue of bonus shares. In addition to its investments in SIAL, the SRE company has also investments in several of the smaller companies of the Centrale group. Most of the long-term debts consist of loans from the Instituto di Credito per le Imprese di Pubblica Utilita (ICIPU) secured by mortgages on SRE's assets and a minor part by unsecured bond issues.

302. The company's earnings record has been good. After the war it has paid each year a dividend of 8%. Consolidated income statements for SRE and SIAL for the period 1951/1955 are shown in Annex 32 in a condensed form.

Management

303. The general policies of SRE are established by a Board of Directors consisting of thirteen members representing the shareholders. A number of the directors have long experience in the management of power utility companies. The management consists of a Director General and four central managers in charge respectively of construction, operations, sales and administration. These men have a long record of service with the company and are experienced, efficient power utility executives. The organization and management of the company are satisfactory. The headquarters of SRE are in Rome.

4. Existing Facilities of the SRE Group

304. The SRE operates in an area centered by the city of Rome. Only the southern part of the area is within the region of Cassa operations. The generating, transmission and distribution facilities of SRE form an integrated system which is

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1/ The full name is "La Centrale" Societa per il Finanziamento di Imprese Elettriche e Telefoniche per Azioni.

2/ Including Lit. 2 billion floating debt due to banks.

interconnected with the Italian network. The group serves a total population of about 2.9 million which is 6.5% of the total population of Italy.

305. At the end of 1955, SRE owned twenty hydro plants and had a participation in two others. It owned the S. Paola thermal plant and also had a participation of 33% in the Civitavecchia modern thermal plant. Including the part of the "common ownership" plants reserved for SRE, the total effective capacity was 276 MW of which 222 MW was hydro.

306. In 1955, a total of 1,200 GWH[1/] were supplied to the SRE system (see details in Annex 33). Of this amount, 704 GWH were produced by the hydro plants, 134 GWH by the thermal plants and the balance of 362 GWH were purchased, mainly during the summer in order to compensate for the reduced generation of the hydro plants. Most of these plants are without seasonal reserve, the reservoir capacity of the whole system amounting only to 8.4 GWH. The annual load factor in the system was 0.49 in 1955.

307. The system includes 2,024 km of high tension lines, 988 km of which are above 150 kv[2/]. The transformer capacity is 932,000 kva for the substations and 458,000 kva for distribution facilities. The entire system is well maintained in accordance with sound utility practice.

308. The 362 GWH purchased in 1955 amounted to 30% of the energy made available to the system. The major suppliers are "Terni" and "Montecatini." The contract with Terni provides for an annual supply up to 260 GWH with a peak load of 80 MW. The contracts with Montecatini provide for 175 GWH and 38 MW. Due to the reduced production of the hydro plants during the summer and fall, purchases may amount to half the total energy delivered during that part of the year. Most contracts have extension clauses, and there is no reason to believe that the existing arrangement will be discontinued. In addition to purchases made on long-term contracts, many short-term purchase agreements are entered into on a weekly or daily basis according to availabilities of power in different companies of northern and central Italy. As shown in Annex 36, the available energy in the system and purchases have been adequate to meet the demand over the past five years. As the SRE system is composed primarily of hydro plants with no seasonal reserve, the low flow during the summer and fall must be compensated by thermal power and by purchases.

309. System losses including transmission and distribution were 17% in 1955. This is normal for a system of this type.

5. The Power Market

310. The power market in the area served by SRE contains a reasonably high proportion of industrial sales which amount to 56%. The major industrial market is

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1/ 1 GWH equals 1 million kWh.

2/ 587 km are in joint ownership with Valdarno (SESV), a company of the "Centrale" group.

light industries in the vicinity of Rome and paper mills in the south of the SRE area. Lighting and domestic uses amounted to 33% of total sales. The average annual increase in sales over the last three years was 8.2%. Projections by major categories are given in Annex 34. The average increase of the industrial uses was 8%, while the increase of domestic uses was 14% and of private light 8.7%.

311. In the forecasts, the total sales are assumed to increase about 7% per year over the next ten years, with an increasing proportion in domestic sales as compared with industrial uses. The power produced by the projects considered for Bank financing will be used mainly for industry. The power forecasts are considered to be conservative.

6. The Investment Program of the SRE Group

312. The investment program of the SRE group has been formulated for the period 1956-1965. The program will add about 180 MW of new hydro and 157 MW of new thermal capacity to the system. About 320 km of new transmission lines, together with about 1,000 km of lines to be built in participation with other companies, and 670 mva of substation capacity are included in the program, along with the necessary extensions of distribution facilities. The estimated cost of this 10-year program is as follows:

	1956-1965	
	Million Lire	Million $ Equivalent
Hydro plants proposed for IBRD loan	8,530	(13.65)
Other hydro plants	35,370	(56.59)
Thermal plants	8,693	(13.91)
Transmission lines and substations	21,790	(34.86)
Distribution	27,570	(44.11)
TOTAL	101,953	(163.12)

313. The 10-year program appears to be justified on the basis of need, but when more accurate estimates of the hydro plants under consideration are worked out, SRE may find it more desirable to substitute equivalent thermal capacity.

314. It is proposed that Bank funds should be used to cover a part of the cost of the program to be executed in the period 1956-1959. During that period, SRE will make the following investments:

	1956-1959	
	Million Lire	Million $ Equivalent
Hydro plants proposed for IBRD loan	8,370[1/]	(13.39)[1/]
Other hydro plants	12,545	(20.07)
Thermal plants	5,800	(9.28)
Transmission lines and substations	10,910	(17.46)
Distribution facilities	9,770	(15.63)
TOTAL	47,395	(75.83)

1/ A small amount of Lit. 300 million expenditures to be incurred in the first months of 1960 has been included in the table.

The details of the SRE program are shown in Annex 35. When related to estimated load and production requirements, the proposed investment program is sufficient (assuming no material increase in purchase of power) to provide facilities to cover the increase in load, and production will be about equal to the requirements of a dry year. The program is fully justified.

7. Projects Proposed for Bank Financing

315. Within the program of the SRE company, it is proposed that two hydro projects to be completed, one in 1958 and one in 1959, should form the basis for a loan of about $8.2 million from the Cassa out of Bank funds. These projects, with their main features, are described below.

a. San Biagio (Extension of Cassino Plant)

316. Description - The project will be above the existing Cassino 36 MW hydro plant which is located between Naples and Rome, near the Cassino Monastery. The main item of the works will consist of the Selva earth dam to be built across the Schiavonaro River. It will be 34 meters high and will form a reservoir of 2 million cubic meters. (See Annex 37). The Chiaro River, which is a tributary of the Volturno River, will be diverted into the reservoir by means of a free level tunnel about 1 km long. The Prada stream, a small tributary of the Schiavonaro River, will be diverted into the reservoir through a canal about 2 km long. From the reservoir a 4.3 km long pressure tunnel will bring the water to a surge tank and a 233 meter long penstock will lead it down to the plant. Two small streams, the Monascesca and Cerasa, will be diverted into the pressure tunnel, one through a pit and the other by a 700 meter long canal. The power house will be built adjacent to the existing diversion tunnel of the Cassino plant, on the right bank of the Mollarino River. The power house will be equipped with a 3.1 MW unit operating under a 141 meter head, along with transformers, switch gear and auxiliary equipment. The discharge from the San Biagio plant will then flow into the Cassino tunnel and increase the availability of water for the Cassino plant. The Selva reservoir will increase the reserve capacity from 0.6 GWH (17 hours)[1/] to 3.5 GWH (97 hours)[1/]. The annual production of the San Biagio plant will be 5 GWH and the increase of production of the Cassino plant will be 25 GWH, or a total of 30 GWH of peak power.

317. Actual flow records for the streams involved in this project date only from 1952. However, they are supplemented by thirty years of rainfall records in the area and of flow measurements of the upper reaches of the Volturno, the Rapido and Mollarino Rivers, of which the streams to be diverted are tributaries. The hydrologic data on which the San Biagio project is based are therefore considered to be adequate.

318. The design and engineering of the project have been carried out by the engineering staff of SRE. The project is sound from an engineering standpoint.

1/ The number of hours assumes that the plant is operated at full capacity, with no flow coming into the reservoir.

Present Status and Schedule of Construction

319. In July 1956 a contract was signed with the Girola Contracting Company for the civil works. Construction has been started and the works are scheduled to be completed by the middle of 1958, although some expenditures will be carried forward to the beginning of 1959. This schedule is considered realistic.

Estimated Cost

320. The total estimated cost of the San Biagio project amounts to Lit. 3.02 billion ($4.83 million). A breakdown showing the cost of principal items is given in Annex 38. The estimate is based on proposals from contractors and manufacturers of equipment. It includes adequate allowances for designing, supervision of construction, overhead expenses and interest during construction. The capital cost per annual kWh[1/] is equivalent to Lit. 100 (US 16¢), which is reasonable for peak power with a reservoir in this region of Italy. The estimate is realistic.

Schedule of Expenditures

321. The schedule of expenditures is estimated as follows:

	Million Lire					
	1955	1956	1957	1958	1959	Total
Expenditures	120	350	1,100	1,250	200	3,020

b. Pontecorvo Hydro Plant

322. Description - The Pontecorvo project is located between Naples and Rome. It will use the waters of the Liri River between the elevations 61 meters and 35 meters. Flow records for the Liri are available for more than fifty years through the operation of hydro plants built along the river.

323. A barrage will divert a flow of 90 m^3/sec from the Liri River into a canal 8.2 km long. (See drawing in Annex 39). The Rio Forma springs will add 3 m^3/sec into the main canal by means of 3.8 km long tributary canal. At the lower extremity of the canal, water will flow through a concrete penstock 57 meters long into the generating unit. A forebay having a capacity of 200,000 m^3 combined with the capacity of the main canal will allow for slight flexibility of operation (35 minutes at full load). The power house will be equipp with one single 22 MW Kaplan type turbine operating under a 26 meter head. An outdoor substation will be provided with a transformer stepping up the voltage to 150 kv.

324. The Pontecorvo plant will produce 85 GWH annually, with an annual load factor of 0.44. Adequate storage for daily regulation will be provided by the capacity of the forebay and the main canal, and by the 2.5 million m^3 reservoir of the Pontefiume Project which is located immediately upstream. The combined effect of these reserves would amount to a little over three hours of full load operation. There is no seasonal reserve and the monthly plant factor will be reduced from a maximum of 0.58 in February to 0.25 in August.

1/ The "capital cost per annual kWh" is commonly used in Europe. It is obtained by dividing the capital cost of a project by the amount of kWh produced annually. Bank reports usually refer to the capital cost per installed kW combined with the plant factor. This yardstick would be meaningless in the case of the San Biagio project, the main purpose of which is to increase the production of an existing plant.

Present Status and Schedule of Construction

325. Expropriation procedures started in May 1956. The project should be put into initial operation in August 1959 and be finally completed in March 1960. This program appears to be realistic.

Estimated Cost

326. The total estimated cost of the project amounts to Lit. 5.51 billion ($8.81 million). This estimate, the details of which are given in Appendix 40, includes 7.5% for contingencies, 7% for engineering and overhead and 11.2% for interest during construction. These estimates appear to be reasonable. The cost per installed kw amounts to $400, which is reasonable for a peak plant.

Schedule of Expenditures

327. The schedule of expenditures is estimated as follows:

	Million Lire						
	1955	1956	1957	1958	1959	1960	Total
Expenditures	40	370	1,400	1,800	1,600	300	5,510

8. Method of Financing

328. It is proposed that Lit.5,125 million, equivalent to $8.2 million, out of the proceeds of the proposed IBRD loan to Cassa be allocated to SIAL, a subsidiary of SRE, to finance the San Biagio and Pontecorvo hydro projects described above. This would finance 60% of their total estimated costs. The remaining 40% would be provided by SRE.

329. The investment required for the Bank projects will represent only a minor part of the total investment in new construction for the SRE system during the period 1956/1959, as will be seen from the following figures:

	Estimated Construction Requirements 1956/1959 (Billion Lire)	
Proposed Bank Projects (SIAL)		8.4 1/
Other Construction SRE system:		
By SIAL	11.4	
By SRE 2/	27.6	
		39.0
		47.4

330. Assuming a loan of Lit. 5.125 billion from the Bank, and funds available from revenues estimated at Lit. 16 billion, SRE will have to raise during the four-year period 1956-1959 about Lit. 26 billion locally to carry out this program. SRE's financing plan provides for this sum to be raised

1/ Includes final expenditure of Lit. 300 million to be incurred in first quarter 1960.

2/ Including SRE's investments for new construction in affiliated companies of La Centrale group.

by selling capital stock in the amount of Lit. 6.7 billion and the difference of Lit. 19 billion by borrowing (about Lit. 13 billion long-term and Lit. 6 billion in the form of floating debt to be funded in later years). SRE has a very good credit rating in Italy. Its shares have found ready acceptance in the Italian market. It is expected that the company will have no difficulty in raising the funds required.

9. Financial Forecasts

331. Pro Forma Consolidated Balance Sheet: Annex 41 shows the estimated consolidated financial position of SRE and SIAL at the end of 1960. Fixed assets, less depreciation, are shown in this balance sheet at Lit. 80.4 billion ($128.6 million). Total outstanding debt would be Lit. 37 billion ($59 million) including about Lit. 8 billion ($13 million) floating debts to Banks, La Centrale, etc., to be funded in later years. The equity is estimated to amount to Lit. 53 billion ($85 million). This represents a total debt-equity ratio of 41:59 which is satisfactory.

332. Future Earnings: An estimate of consolidated earnings for the period 1956/1960 is given in Annex 42. The estimates for revenues assume conservative gradual rate increases during this period. Net profits would be sufficient to maintain an annual dividend of 8% on the increased share capital during the period.

333. Forecast of Cash Flow: This forecast is also given in Annex 42. In addition to the expenditures required for the proposed Bank projects, considerable sums will be invested in other construction during the period and they have also been included in the forecasts (Section 8 - Method of Financing). The forecast also provides for the payment of an annual dividend of 8% on share capital. No 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.

334. Debt Service: Assuming, for the purpose of calculation only, that the loan to be made by Cassa out of Bank funds for the SRE projects equivalent to $8.2 million, would be for a term of 20 years, including three and a half years of grace, and at an interest rate of 6%, annual debt service on this loan would be about Lit. 507 million. Total debt service on all debts is estimated to be covered by consolidated receipts from operations not less than 2.5 times.

335. After completion the proposed Borrower (SIAL) will lease the plants selected for Bank financing to SRE. SIAL's present facilities are being operated by SRE on the same basis. The rent which has been paid in the past and which will be paid in the future, has been and would be high enough to reimburse SIAL for its costs and to enable SIAL to pay an annual dividend of about 8% on its share capital. For the reasons already stated, the financial appraisal in this report has been made for the consolidated position of SRE and SIAL and not for SIAL alone.

C. Societa Generale Elettrica Della Sicilia (SGES) and TIFEO

1. Introduction

336. This section of the report covers an appraisal of a project submitted by Societa Generale Elettrica Della Sicilia (SGES) for Bank financing. The proposed borrower would be "TIFEO" 1/, a subsidiary of SGES.

2. The Borrower (TIFEO)

337. TIFEO was founded in August 1954 by SGES and Bastogi (the company who controls SGES) with an initial share capital of Lit. 1 million. Share capital as of April 1956 had been increased to Lit. 500 million of which SGES held about two-thirds and Bastogi the remainder. The TIFEO company was founded for the purpose of taking advantage of recent legislation in Sicily authorizing the issue of bearer shares which is expected to facilitate the raising of equity funds from the investing public. At the end of 1955 TIFEO's assets only amounted to some Lit. 800 million consisting mainly of advance payments made for the project appraised in this report. At the same date, TIFEO's share capital only amounted to Lit. 1 million, and it was indebted to the parent company SGES for about the full value of the assets. It is contemplated that after completion, the project, and any future facilities which TIFEO may own, will be operated by SGES on the basis of a lease.

338. The proposed loan to TIFEO by the Cassa out of Bank funds would be guaranteed by SGES, Bastogi and Finelettrica. Bastogi, which is a privately-owned investment group (with a net worth in excess of $65 million equivalent) is the principal shareholder of SGES. Finelettrica is a utility holding and financing company controlled by the Government through IRI. IRI also has an interest in SGES. Both Bastogi and Finelettrica are in a strong financial position. The type of guarantee to be given by SGES, Bastogi and Finelettrica will not only cover the repayment of the loan but also performance during the life of the loan. In view of this broad guarantee and the fact that SGES has agreed that it will maintain a majority holding in TIFEO's share capital, the particular financial position of TIFEO is of no special significance. Also in view of the fact that TIFEO will not have an independent operating existence of its own, the appraisal in this report will be based on the consolidated position of the parent company and TIFEO combined.

1/ The full name of the company is "TIFEO" Societa per Azioni per la Produzzione di Energia Elettrica.

3. The Parent Company (SGES)

339. The "Societa Generale Elettrica Della Sicilia" (SGES) was founded in 1903 in Catania and has gradually extended its activities to cover the whole island of Sicily. In 1903 the share capital was Lit. 300,000 and it has been increased over the years to Lit. 12.5 billion in April 1956.

340. SGES is controlled by the Bastogi group, which owns about one-third of SGES share capital. The distribution of the shares of SGES at the end of 1955 was as follows:

- Societa Italiana per le Strade Ferrate Meridionali (Bastogi Group)	33.57%
- Istituto per la Ricostruzione Industriale (IRI) 1/	6.02%
- Banco di Sicilia	2.89%
- Istituto Nazionale per i Cambi con L'Estero	2.29%
- Banco Nazionale del Lavoro	1.75%
- Others (7,600 shareholders)	53.48%
TOTAL	100.00%

341. SGES produces and distributes power in 344 out of the 367 villages and towns of Sicily. A new line across the Messina Straits enables it to purchase power from continental Italy. Power is also produced by a new Sicilian Electricity Board (ESE) and by the thermal plant of Palermo, the ownership of the latter being divided equally between SGES, the Italian railways and ESE.

342. SGES has substantial holdings in the following companies:

	Share Capital
Societa Anonima Siciliana Trasporte - Palermo (Busses and trolley busses)	90% of Lit. 250 mil.
Societa Catanese Trasporti of Catania	84% of Lit. 200 mil.
Societa An. Siciliana per Irrigazione - Palermo	100% of Lit. 25 mil.
Societa Meridionale del Gaz of Naples	33% of Lit. 306 mil.
Societa Termo Elettrica Siciliana - Palermo (Thermal plant of Palermo)	33% of Lit. 6,000 mil.
TIFEO (Thermal plant of Augusta)	67% of Lit. 500 mil.

343. At the end of 1955 the balance sheet of the Company showed total assets of Lit. 56.3 billion ($90 million). These were mainly represented by fixed assets, which after deduction of the reserve for depreciation, amounted

1/ IRI proposes to transfer its present holdings of shares in SGES to Finelettrica in the not too distant future, as it proposes to do ultimately with all its public utility holdings. This explains why Finelettrica will guarantee the loan to SGES as indicated in para. 338.

to Lit. 39.1 billion ($62.5 million). The balance sheet given in Annex 43 showed a satisfactory financial position. Total debt amounted to Lit. 13.3 billion 1/ ($21.3 million) and the equity to Lit. 32.8 billion ($52.5 million), representing a total debt to equity ratio of 29/71. During the postwar period successive revaluations authorized by law have taken place and have resulted in a net write-up of assets of about Lit. 28 billion ($44.8 million). Bonus shares were issued for Lit. 8.2 billion ($13.1 million) of this write-up.

344. A large part of the outstanding long-term debts of Lit. 10.2 billion consist of loans obtained from the Instituto di Credito per le Imprese di Pubblica Utilita (ICIPU) amounting to Lit. 6.9 billion ($11 million). The remainder of the debts was made up of loans from the Bank of Sicily (Lit. 1.4 billion) and bond issues (Lit. 1.8 billion). The loans from ICIPU and the Bank of Sicily are all secured by mortgages on the Company's assets. Of the outstanding bond issues only a minor fraction is secured.

345. The Company's earnings for the last five years are shown in Annex 44. During each of these years the Company has paid a dividend of 7%.

Organization and Management

346. The headquarters of SGES are in Palermo. The general policies of the company are established by the Board of Directors consisting of sixteen members representing major shareholders. A number of the directors have had long experience in the management of power utility companies. The management of SGES consists of a Director General, and six General Managers in charge respectively of finance, administration, legal, generation, civil construction and electrical construction. In addition, five Area Managers are in charge of distribution and sales. 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.

4. Existing Facilities of SGES

347. The generating, transmission and distribution facilities of SGES cover the whole of Sicily. During the past year, Sicily was connected to continental Italy by a transmission line built across the Messina Straits by the SGES company. The area of the main island is 25,460 sq.km. with a

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1/ Including about Lit. 3 billion floating debt, a major part of which was due to Bastogi, the principal shareholder of SGES.

population of about 4.65 million which is about 1/10 of the total population of Italy.

348. At the beginning of 1956, SGES had seven main hydro plants and four main thermal plants, and in addition a 1/3 participation in the thermal plant of Palermo. The total effective capacity was about 35,000 kw. in the hydro plants and 80,000 in the thermal plants. Practically all the new capacity installed since 1946 has been thermal. In an average year, production from the hydro plants amounts to 110 GWH, with an insignificant seasonal reserve. Total production in 1955 amounted to 327 GWH and purchases to 413 GWH (see Annex 45). The average load factor in the system is 0.51. The mildness of the climate causes only moderate additional demand during the winter, and irrigation pumping causes the demand to be maintained during summer.

349. The system includes 1,078 km of high voltage transmission lines with 361,000 kva of substation capacity, and the necessary distribution facilities to serve a total of 786,000 customers. The entire system is well maintained in accordance with sound utility practice.

350. In addition to the power generated in the plants belonging to SGES, power is purchased from three other sources: most of it comes from the 60,000 kw thermal plant of Palermo completed in 1952 by the Societa Termo Elettrica Siciliana, a company in which SGES, the Italian railways and the Sicilian Electricity Board (ESE) have equal participations. Small amounts of power are purchased from SME, on the continent, through the new line which connects Messina to Calabria over the straits. There are no written agreements on exchange of power between SME and SGES. An oral agreement allows SGES to use up to 15 MW. SGES also purchases power from the Sicilian Electricity Board (ESE). For political reasons, the cooperation between SGES and ESE is not good, and there are no written agreements covering purchases of power.

351. As shown in Annex 48, since 1953 the available capacity in the system has been able to meet the peak load. The losses in the system are in the neighbourhood of 20% of the total power available in the system. This is not considered to be excessive taking into account the large number of distribution systems included in the properties.

5. The Power Market

352. In 1955, the peak load on the system was 165 MW and sales amounted to 566 GWH. During the period 1950-1955, sales of the Company have increased at an annual average rate of about 14%. During the same period, the peak load on the system has increased at an average annual rate of 15.5%. The sales to industry constituted 51.2% of total sales in 1955, and their average increase was 18% over the three last years. The major power consuming industries are shipyards, chemicals, textiles, cement and food processing.

353. The average annual increase in total sales over the period 1956-1965 is estimated at 10%. Proportions by principal categories are given in Annex 46. The industrial uses are assumed to increase 11%. These estimates are considered to be conservative in view of the industrial expansion resulting from the Cassa program, from the privileges granted to new industries by the Sicilian regional government and from successful oil explorations. In 1955, average annual power consumption in Sicily was 122 kwh/per capita, as compared with 220 kwh in southern Italy and 1,100 kwh in northern Italy.

6. The Investment Program of SGES

354. The investment program of SGES has been formulated for the period 1956-1965. This program will add about 36 MW of new hydro and 280 MW of thermal capacity. During that period, 38 MW of old thermal stations 1/ will be scrapped. The construction of 230 km of 150 kv and 781 km of 70 kv transmission lines and the transformation of 357 km of existing lines from 40 kv to 70 kv, are included in the program, together with about 740 MVA of substation capacity along with the necessary extension of distribution facilities. The estimated cost of this ten year program is as follows:

	1956 - 1965	
	Million Lire	Million $ Equivalent
Hydro plant	3,600	(5.76)
Thermal plants	21,000	(33.60)
Transmission lines	5,500	(8.80)
Substations	10,000	(16.00)
Distribution facilities	35,000	(56.00)
	75,100	(120.16)

355. The part of the program for which partial financing by the Bank is considered extends from 1956 through the first part of 1958. During that time, SGES will make the following investments, including the Bank Projects which amount to Lit. 10.9 billion.

	1956 - 1958	
	Million Lire	Million $ Equivalent
Hydro plant	3,600	(5.76)
Thermal plant	10,000	(16.00)
Transmission lines	1,400	(2.24)
Substations	2,150	(3.44)
Distribution	8,450	(13.52)
	25,600	(40.96)

1/ Catania 15 MW; Porto Empedocle 15 MW; Messina 8 MW

The details of the SGES program are shown in Annex 47. The proposed investment program appears to be adequate to cover estimated requirements.

356. Most of the economical hydro resources of Sicily have already been developed. For its future needs, Sicily will have to rely upon thermal power and power imported from the continent. The forecasts made in this report assume that almost all new power would be produced locally, limiting power imports from the continent to 15 MW. This assumption is justified in the light of the promising oil explorations now taking place in Sicily. If cheaper sources of power were to be developed on the continent, the new line connecting Sicily to Calabria could easily be brought to its maximum capacity of 300 MW, substantially reducing the amount needed for the construction of new thermal plants.

7. Project Prosposed for Bank Financing

357. The Augusta Thermal Plant would be located near the RASIOM Oil Refinery, in the harbor of Augusta, on the eastern coast of Sicily, about 20 km north from Syracuse (Annex 49). The plant would be equipped with two turbo-generating units, each with a rated capacity of 70,000 kw, and with two gas turbines operating generators of 3,600 kw each, to be used for the auxiliaries.

358. The boilers to be built in Italy under Combustion Engineering license will provide steam pressure of 100 k/cm^2 (1,380 lbs. per sq. inch) and a temperature of 540° Centigrade (1,000° Farenheit). They will be fired by refinery residues, fuel oil or pulverized coal. The turbines built under Westinghouse License, are of the reheating type. The cooling of condensers will be done by sea water which will be brought to the plant by means of a canal extending from the shore 500 meters into the sea, with a capacity of 7 cubic meters/second. Three oil storage tanks with a capacity of 8,000 m^3 each, and a coal yard of 60,000 tons to be built in a second stage, will allow fuel storage for a month of operation. Pipelines will connect the storage tanks to the landing pier and to the refinery. 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 transformers with a capacity of about 100,000 kva each will step up the voltage to 70 and 150 kv. The production of the plant would increase from 320 million kwh in 1958 (Plant factor 0.2) to 620 million kwh in 1963 (Plant factor 0.5).

359. The plant will be connected to the network by means of two 70 kv and two 150 kv lines. The two single circuit 150 kv transmission lines considered for Bank financing are each 40 km long. They will be constructed with steel towers, steel reinforced aluminium conductors and steel ground wires. Each line will have a maximum capacity of 70,000 kw. The lines will be connected at one end to the Augusta plant transformers, and at the other end to synchronous condensers with a capacity of 40,000 kva, in the Zia Lisa substation in the suburbs of the city of Catania. The synchronous condensers and transformers are part of the project.

360. The project has been designed and engineered by the engineering staff of SGES. The designs for the plant are based on proposals made by manufacturers of thermal generating equipment. The plans for the transmission facilities should meet future operating requirements of the system. The project is sound from an engineering standpoint.

Present Status of Engineering and Schedule of Construction

361. Following an international call for bids, orders have been placed for turbines (Franco-Tosi Westinghouse design), boilers (Franco-Tosi, Combustion Engineering design), generators (Compagnia Generale di Elettricita) and the auxiliary unit (Sigma). Tenders have been received from European and American manufacturers for the remaining equipment. The construction of the plant is scheduled to start in March 1956, and to be completed by the end of 1957. This schedule appears to be slightly optimistic and it is likely that completion by the middle of 1958, is more realistic. For the transmission facilities, orders were to be placed in March 1956. The works should be completed in October 1957. This schedule is realistic.

Estimated Cost

362. The total estimated cost of the plant would amount to Lit. 9,930 million ($15.89 million equivalent). The transmission facilities would cost Lit. 970 million ($1.55 million equivalent), bringing the total cost to Lit. 10,900 million ($17.44 million equivalent). Breakdowns showing the cost of principal items are given in Annex 50. The estimates are based on actual contracts and bids. The total prices include 7.5% for contingencies, 7% for engineering and overhead and 11.2% for interest during construction. The estimates are considered to be realistic. The cost per installed kw amounts to the equivalent of $125/kw, including the transmission lines. This is low for thermal installations of this type.

Schedule of Expenditures

363. The schedule of expenditures is estimated as follows:

	1955-1956	1957	1958	Total
	Million Lire			
Expenditures				
Augusta Power Plant	3,732	3,512	2,686	9,930
Transmission Facilities	325	645	-	970
Total	4,057	4,157	2,686	10,900

8. Method of Financing

364. It is proposed that Lit. 6.56 billion, equivalent to $10.5 million out of the proposed IBRD loan to Cassa be allocated to "TIFEO" for this project. This would finance 60% of their total estimated costs. As was indicated above, the total investment in new construction during the period 1956/1958 to be made by SGES and TIFEO is estimated at some Lit. 25.6 billion, as follows:

	Estimated Construction Requirements 1956/1958 (Billion Lire)
Expenditures required to complete Bank projects	10.1
Other Construction	15.5
	25.6

365. Assuming a loan of Lit. 6.56 billion from the Cassa out of Bank funds, and funds available from revenues estimated at Lit. 5.7 billion, SGES will have to raise locally during the three-year period about Lit. 13.3 billion to meet this investment program. SGES' financing plan provides for raising this sum by selling capital stock in the amount of Lit. 6.5 billion 1/ and about Lit. 6.8 billion by borrowing. SGES has a good credit rating in Italy. Its shares have found ready acceptance in the Italian market. It is expected that the company will have no difficulty of raising the funds required.

9. Financial Forecasts

Pro Forma Consolidated Balance Sheet

366. The estimated consolidated financial position of SGES and TIFEO at the end of 1958 is shown in Annex 51. Fixed assets, less depreciation, are shown in this balance sheet at Lit. 64.1 billion ($102.6 million). Total outstanding debt would be about Lit. 25.5 billion ($40.8 million) including about Lit. 5 billion floating debt to be funded in later years. With an estimated equity of Lit. 41.9 billion at the end of 1958 the total debt to equity ratio would be 38/62, which is satisfactory.

Forecast of Earnings and Cash Flow

367. A forecast of consolidated earnings and cash flow for SGES and TIFEO is given in Annex 52. Minor rate increases have been assumed in estimating revenues. Net profits are estimated to be sufficient to allow the payment of an annual dividend of 8%, as assumed in the cash flow forecast. This forecast

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1/ This includes somewhat less than Lit. 1.5 billion worth of shares of its subsidiary TIFEO to be sold to the general public. At the same time sufficient TIFEO shares will be sold to SGES for the latter to maintain a majority.

does not show any cash accruals, because the amounts of new financing to be undertaken by way of borrowing and increases in share capital have been set at amounts which would make total receipts equal to total expenditures.

Debt Service

368. Assuming, for the purpose of calculation only, that the loan to be made by the Cassa out of Bank funds would be the equivalent of $10.5 million for a term of 20 years, including 2.5 years of grace, at an interest rate of 6% per annum, annual debt service on this loan would be about Lit. 626 million ($1 million). Total debt service on all debts is estimated to be covered by consolidated receipts from operations not less than 3.5 times after completion of the project.

369. After completion, the proposed Borrower (TIFEO) will lease the plants selected for Bank financing to SGES. The rent which would be paid would be high enough to reimburse TIFEO for its costs and to enable TIFEO to pay an annual dividend of 8% on its share capital. For the reasons already stated the financial appraisal in this report has been made for the consolidated position of SGES and TIFEO and not for TIFEO alone.

D. Societa Meridionale Di Elettricita (SME)

1. The Company

370. The Societa Meridionale di Elettricita (SME) was founded in 1893 with an initial share capital of Lit. 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 1956, of about Lit. 62.2 billion of which about Lit. 56.5 billion has been paid in.

371. 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 the end of 1955 was as follows:

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

372. The SME group consists of the parent company and five subsidiaries: Campania, Pugliese, Calabrie, Lucana and Sebi. The parent company distributes power in Naples and the surrounding areas as well as to certain large consumers in other areas (See Annex 30). 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.

373. Consolidated net assets of the SME group at the end of 1955 amounted to about Lit. 200 billion ($320 million) of which about 75% was represented by fixed assets. The capital structure of the group showed a total debt[1/] to equity ratio of 30/70. This total debt amounted to about

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1/ Includes short-term debt of Lit. 16 billion.

Lit. 50 billion and equity amounted to Lit. 118 billion. Gross revenues increased from about Lit. 18 billion ($28.8 million) in 1950 to about Lit. 37 billion ($59 million) in 1955. Profits after financial charges increased from Lit. 3.3 billion ($5.5 million) to Lit. 5 billion ($8 million) during the same period.

374. About two-thirds (Lit 20.5 billion, equivalent to $32.8 million) of the long-term debts consist of loans from the Instituto di Credito per Imprese di Pubblica Utilita (ICIPU), (a Government controlled institution). The remainder of the long-term debts are ERP credits obtained through Instituto Mobiliare Italiano (IMI) with Lit. 4.9 billion ($7.9 million) outstanding, various bond issues totalling Lit. 3.6 billion ($5.8 million), withdrawals of Lit. 5 billion ($8 million) on a Cassa loan from IBRD funds, and some smaller debts. The ERP credits represent obligations in U. S. dollars. Most of the loans are secured by mortgages and special liens on specific properties. The Cassa loan, however, is not secured by a mortgage but by a suretyship given by Finelettrica and Bastogi.

375. The group uses short-term bank credits to meet part of its construction expenditures, which it normally converts to long-term debts or covers by issue of share capital after completion of construction. Inasmuch as the group has continuing construction expenditures, the short-term debts are continually renewed and constitute a semi-permanent floating debt, the size of which varies with requirements from time to time. At the end of 1955 such debts amounted to about Lit. 16 billion ($25.6 million) and were partly in the form of overdrafts in current account and partly in the form of promissory notes. 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. Originally, the group had planned a considerable reduction in its short-term indebtedness during 1955 to be effected by funding operations. This, however, was not done because it was more advantageous to maintain the level of short-term borrowing as a result of a decrease in the interest rates which the Company was able to negotiate for this type of borrowing, making it substantially cheaper than long-term loans. Although the absolute amount of outstanding short-term indebtedness is expected to remain at approximately the same level during the next four years due to the requirements of the large construction program of the group, there would be a substantial reduction in the proportion of the short-term debt to total debt, namely from approximately one-third to one-seventh.

376. The financial position of SME alone is shown in the condensed balance sheet given in Annex 53. The position at the end of 1955 showed total assets of Lit. 153.9 billion ($246 million) of which Lit. 104 billion ($166.4 million) were fixed assets (less depreciation). Successive revaluations authorized in the post-war period have resulted in a net write-up of assets of about Lit. 68.2 billion ($109 million) of which Lit. 32.6 billion ($52 million) has been capitalized by the issue of bonus shares. At the end of 1955, a balance of Lit. 35 billion ($56 million) remained in the revaluation reserve. At the end of 1955, total debt amounted to Lit. 48.7 billion ($77.9 million) including Lit. 15.8 billion ($25 million) short-term debt. Equity amounted to Lit. 93.1 billion ($149 million) giving a total debt to equity ratio of 34/66.

377. The Company's earnings record has been good. Annual dividends ranging from 6.4 to 7.5% have been paid since 1947. Condensed profit and loss statements for the period 1951/1955 are given in Annex 54.

Organization and Management

378. The headquarters of the Company is in Naples. 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.

2. Existing Facilities of the SME Group

379. The generating, transmission and distribution facilities of SME and its subsidiaries[1/] 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 10.9 million which is almost one-fourth of the total population of Italy.

380. At the end of 1955, the group had 63 hydro-electric plants, 36 of which had a capacity of more than 500 kW each, and three thermal plants. The total effective capacity was 694 MW of which 544 MW was hydro. Plants constructed in the post-war period represented 45% of the existing hydro and 60% of the thermal capacity. In an average water year, production from the hydro plants amounts to 2,279 GWH out of a total production of 2,479 GWH. Reservoir capacity in the system amounts to the equivalent of 562 GWH. The average annual load factor on the system is 0.55.

381. The system includes 4,326 km of high tension transmission lines with 1.35 million kva of substation capacity and about 24,000 km of secondary and low tension transmission lines along with the transformers and facilities necessary to serve 2,400,000 customers. The entire system is well maintained in accordance with sound utility practice.

382. 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 GWH with a peak load of 88.8 MW. 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.

1/ Pugliese, Campania, Calabrie, Lucana, SEBI.

383. 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 GWH net of losses, with a peak capacity of 25.5 MW. Smaller amounts of power are also purchased from a number of other companies, totalling in an average year about 50 GWH. (See Annex 55).

384. 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. Many short-term purchase agreements are entered into on a weekly or daily basis according to availability of power in different companies. As shown in Annex 58, the energy available to the system has been adequate to meet the demand over he past nine years. The system, however, has not been able to meet production requirements in dry years such as 1949.

385. The losses in the system were relatively high during the first post-ar years but have been steadily reduced and amounted in 1955 to about 18% f total power available in the system. This is not considered to be ex-essive, taking into account the great length of transmission and distribu-ion lines included in the system.

3. The Power Market

386. - In 1955, the peak load on the system was 625 MW and sales amounted o 2.46 billion kWh. During the period 1946-55, sales of energy have in-reased at an average annual rate of about 12%. During the same period, he peak load on the system has increased at an average annual rate of 10.5%, ut with practically no substantial increase in 1955.

387. The power market in the area served by the SME group is character-zed by a high proportion of industrial consumption which, in 1955 amounted o 1.06 billion kWh or 43% of total sales. The major power consuming in-ustries are metals, machinery, chemicals, textiles and food processing. n 1955, average power consumption in south Italy was 220 kWh per capita as ompared with 1,100 kWh in north Italy. The average annual increase in sales over the period 1955-64 is estimated at 10.5%. Proportions by princi-pal categories are given in Annex 56. In recent years the general industrial load has increased about 13.5% 1/ per year while that of the electro-chemical and electro-metallurgical industries has increased at a rate of only about 2% per year.

388. In the forecasts, the former is assumed to increase about 11% per year with only a small increase in the latter group. These estimates are considered to be reasonable, although they may be somewhat on the optimistic side. The industrial expansion which is resulting from the Cassa program should permit the average annual increase to remain in the neighborhood of 10.5%. The proportions of domestic load assume an annual increase of about 9% which is based on an increase of consumers of 5% and an increase in consumption per consumer of about 4%.

1/ From 643 GWH in 1951 to 1,062 GWH in 1955.

4. The Investment Program of the SME Group

389. The investment program of the SME group is shown for the period 1955-1959. The program includes about 220 MW as hydro plants and 120 MW as thermal plants which will be completed during this period. Construction will also be started on new thermal plants with a capacity of 600 MW. The program will also add about 1,200 km of new transmission lines and 900,000 kva of substation capacity, with the necessary expansion of distribution facilities.

390. The investment program can be broken down between the projects financed by the $21 million portion of Loan 117[1/], the projects presently under consideration for Bank financing and the remaining construction of the SME group.

	1955		1956 - 1959		Total 1955 - 1959	
	Million Lire	Million $ Equiv.	Million Lire	Million $ Equiv.	Million Lire	Million $ Equiv.
Projects Financed Under Loan 117						
Mucone II (Luzzi) Hydro	2,625	(4.20)	205	(0.33)	2,830	(4.53)
Matese Hydro	-	-	1,280	(2.05)	1,280	(2.05)
Mucone-Fratta Line	961	(1.54)	992	(1.58)	1,953	(3.12)
Bari Thermal Plant	1,343	(2.15)	10,157	(16.25)	11,500	(18.40)
Coscile II Hydro	-	-	1,100	(1.76)	1,100	(1.76)
	4,929	(7.89)	13,734	(21.97)	18,663	(29.86)

Project Considered for Financing in 1956

	1956 - 1959	
	Million Lire	Million $ Equivalent
Bussento Hydro	6,750	(10.80)

1/ $9 million to SME proper and $12 million to Pugliese.

391. The SME group will have other construction expenditures during the period 1956-1959 of Lit. 107.2 billion ($171.5 million equivalent). The details of the program of the SME group are shown in Annex 57. The proposed investment appears to provide facilities adequate to cover the increase of power demand. The program shows that few hydro resources remain in southern Italy which can be economically developed and that the bulk of the power to be developed in the coming years will be thermal plants.

5. Project Proposed for Bank Financing

392. Within the program of the SME group, it is proposed that the Bussento hydro project, to be executed by the parent company, be the basis for a loan of $6.5 million from the Cassa out of Bank funds. The important features of the project are as follows:

Bussento Hydro Power Project

393. This project is located near the western coast of Italy, 90 km south of Salerno. It will use the waters of the Bussento River and a tributary, the Cassaletto. (Annex 59).

394. A 27 meter high rock fill barrage to be built across the Bussento River will divert a flow of 25 cubic meters per second into a 7.4 km long pressure tunnel which will lead into a surge tank. The Cassaletto stream will be diverted into the pressure tunnel by a concrete weir, 4 kms of canal and 2 km of free level tunnel with a maximum capacity of 1 cubic meter per second. The connection between the Cassaletto tunnel and the main Bussento tunnel will take place through a vertical shaft. The Bussento barrage will create a small reservoir with a useful capacity of 400,000 m^3, equivalent to 230,000 kWh (4½ hours of operation with no inflow). This would be sufficient to regulate the plant for peaking purposes. From the surge tank, water will flow down to the plant through a 1,400 meter long penstock with an average diameter of 2.80 meters.

395. The powerhouse will be equipped with two vertical Francis type turbines operating under a head of 250 meters, with a combined capacity of 52 MW. An out-door substation will be provided with two transformers stepping up the voltage to 30 or 150 kv. The plant will be connected to the existing 150 kv transmission line from Sila to Tusciano by means of a new 24 km long line.

396. Flow records for the Bussento and the Cassaletto river date only from 1952. However, they are supplemented by 25 to 35 years of rainfall records in the area. The hydrographic data on which the project is based is therefore considered to be adequate.

397. The Bussento plant would produce 100 GWH in an average year and 80 GWH in a dry year. The corresponding plant factors would be 0.22 and 0.18. As there is no seasonal reservoir, in an average year, the plant will have a monthly production of 11.7 GWH from November through April, and 5 GWH from May through October. The monthly plant factor would therefore vary from 0.31 during the rainy half of the year to 0.13 during the rest of the year. All of the production would be used for peaking purposes.

Present Status and Schedule of Construction

398. The designs for the project are completed and bids for the civil works were to be received in May-June 1956. The project is scheduled to be completed by the end of 1959. This program appears to be realistic.

Estimated Cost

399. The total estimated cost of the project amounts to Lit. 6.75 billion ($10.80 million). This estimate, the details of which are given in Appendix 60 includes 7.5% for contingencies, 7% for engineering and overhead and 11.2% for interest during construction. These estimates appear to be reasonable. The cost per installed kw amounts to $208 which is low for a peak plant in southern Italy.

Schedule of Expenditures

400. The schedule for expenditures is estimated as follows:

	Million Lire				
	1956	1957	1958	1959	Total
Expenditures	750	1,500	1,500	3,000	6,750

6. Method of Financing

401. Capital expenditures required during the four-year period 1956/1959 to construct the Bussento project are estimated at Lit. 6.75 billion, of which Lit. 4 billion, equivalent to $6.5 million, is proposed to be financed out of the proceeds of the loan from IBRD to the Cassa now under consideration. This would represent about 60% of the estimated cost of the project. During the period 1956/1959 SME plans to make a considerable additional investment in the expansion of its facilities partly for construction to be completed during the period under construction and partly for construction that will not be finished until after 1959. SME will also during the period have to make certain investments in its subsidiaries. It is, therefore, more appropriate to consider the requirements and the financing plan for the SME group of companies as a whole. These requirements are as follows:

	Estimated Construction Expenditures 1956/1959 (Billion Lire)
IBRD Projects - existing Loan No. 117	
SME	2.5
Pugliese	11.3
	13.8

	Estimated Construction Expenditures 1956/1959 (Billion Lire)	
IBRD Project - proposed Loan		
SME (Bussento Project)	6.8	
		6.8
Other Construction Expenditures		
SME	64.8	
Pugliese	17.5	
Calabrie	5.8	
Other Companies	19.1	
		107.2
		127.8

402. This is quite a substantial investment program for the next four years, equivalent to about $200 million, of which the Bank projects only represent a minor portion. The proposed financing plan to cover these requirements of the group of companies is as follows:

	Consolidated Financing Plan 1956/1959 (Billion Lire)	
Borrowing:		
a) From IBRD (via Cassa)		
1) balance available Loan No. 117:		
SME	2.0	
Pugliese	6.1	8.1
2) proposed IBRD loan:		
SME	4.0	4.0
b) Other Borrowing		59.2
Total Borrowing		71.3
c) Sale of Share Capital		34.4
d) Available from own resources		22.1
		127.8

403. Assuming the proposed new IBRD financing for the SME group of Lit. 4.0 billion as indicated in the above table and an availability from the group's own resources of Lit. 22.1 billion, the group must still raise about Lit. 93.6 billion as new share capital and loans. This plan may be optimistic and to the extent that funds could not be raised, part of the construction schedule other than for the projects financed with the aid of Bank funds will have to be extended.

7. Financial Forecasts

Proforma Balance Sheet - SME

404. By the end of the four-year period 1956/1959 total assets of the SME Group are expected to amount to Lit. 291 billion ($465 million) after deduction of a depreciation reserve of Lit. 118 billion ($189 million). Total debt, including about Lit. 16 billion floating debt, would amount to Lit. 110 billion ($176 million) and the equity to Lit. 159 billion ($254 million). This represents a total debt to equity ratio of 41/59.

405. The estimated financial position of the SME company alone is given in Annex 62. Total debt would amount to Lit. 80 billion ($128 million) and the equity to Lit. 132 billion ($211 million), giving a ratio of 38/62.

Forecast of Earnings and Cash Flow

406. This forecast for the SME company for the period 1956/1960 is given in Annex 62. The estimates of revenues from sales assume certain increases in rates during the period to compensate for the higher cost of production of the new facilities. Net earnings after depreciation and interest on all outstanding debt would be sufficient to maintain an annual dividend of from 7 to 7½% for which provision has been made in the forecast of cash flow. This forecast assumes no cash accruals during the period, because the amounts of new financing to be undertaken by way of borrowing and sale of share capital have been set at amounts which will make total receipts equal to total expenditures.

Debt Service

407. It has been assumed, for purposes of calculation, that the loan to the Cassa out of Bank funds for the Bussento project to be constructed by the SME Company would be the equivalent of $6.5 million, with a term of 20 years, including three and a half years of grace, at an interest rate of 6%. On these assumptions the annual debt service would amount to the equivalent of $622,000 or about Lit. 390 million. Total debt service on all debts is estimated to be covered by receipts from operations not less than 2.5 times.

Security

408. The proposed loan to SME by Cassa out of Bank funds would be guaranteed by Finelettrica and Bastogi. The type of guarantee to be given will not only cover the repayment of the loan but also performance during the life of the loan. Both Finelettrica and Bastogi have given a similar guarantee for the loan made to SME by the Cassa out of the proceeds of last year's IBRD Loan No. 117.

E. Cost of Power Production and Economic Justification

409. All the hydro plants considered in this report will be used for peaking purposes. It is estimated that they will produce peak power at the following prices, based upon straight line depreciation over 50 years, 8% interest or dividend on capital cost, 2.5% for operation and maintenance and 1.5% for taxes.

	Cost of Power at Plant	Cost of transmission and distribution	Total delivered Price	
	Lit. per kwh	Lit. per kwh	Lit. per kwh	U. S. Cents
SRE				
San Biagio	14.96	14.50	29.46	4.7
Pontecorvo	8.20	14.50	22.70	3.6
SME				
Bussento	9.45	14.50	23.95	3.8

410.- Although the energy produced by the San Biagio will cost more than the energy produced by Pontecorvo and Bussento and by the projects financed by Loan 117, the project is justified because it provides peak power to the SRE system, increases the production of an existing plant and, more important, provides standby capacity for a temporary breakdown in the thermal plant of the system.

411. The Augusta thermal plant to be built by TIFEO/SGES in Sicily will be used for base load power. Assuming a plant factor of 0.50, depreciation over 25 years, 3% of capital cost for operation and maintenance, 1.5% for taxes and 4.05 Lit. per kwh of fuel, the plant will produce base load power at a cost of Lit. 6.95/kwh to which about Lit. 10 should be added for transmission and distribution. The power delivered to the individual consumers would therefore amount to Lit. 16.95/kwh. If the plant were to be used for peak with a plant factor of 0.20, the cost of power would increase from Lit. 6.95 to about Lit. 12 per kwh. Under these circumstances, the substitution of thermal plants for the hydro plants under consideration would be more costly under present conditions.

412. During 1955 average costs of power per kWh delivered to the consumers were:

	Lire per kWh
SRE	12.9
SGES	19.2
SME Group	11.6

413. As a result of increasing fixed charges and operating costs, average production costs are bound to increase except for SGES where modern thermal facilities will be added, and partly replace old plants. In 1960, when all the projects considered for Bank financing will have been completed, it is estimated that the average costs per kWh will amount to:

	Lire per kwh
SRE	18.1
SGES	18.9
SME Group	14.4

4. These average production costs have to be compared with the 1955 erage selling prices: 1/

	Lire per kwh
SRE	15.5
SGES	20.4
SME Group	13.30

5. For SRE and the SME group, the increased cost of production ex- cted by 1960 will exceed the present average selling rates and increases rates will be needed.

F. Power Rates

6. Power rates in Italy were free before 1936. From that date they re frozen until 1944 when an Interdepartmental Price Com- ttee was appointed and given authority to make rate changes without the ...ed for parliamentary action. Between 1946 and 1948, four general rate increases were authorized and executed by multiplying the 1936 rate structure by a coefficient. 2/ The present coefficient is 24 and has been in effect since 1948. The general price level has increased by about 60 times since 1936.

417. 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

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1/ Including contributions from the equalization fund discussed further.

2/ August 1946 Coefficient 5 for all Italy.
January 1947 " 7 in Northern Italy and 3 for the rest of Italy.
August 1947 " 14 in Northern Italy and 16 for the rest of Italy.
August 1948 " 24 in all Italy.

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 reduce overall requirements for reserve capacity. Losses in the system have also been reduced by improvement of transmission and distribution facilities.

418 . Since 1948, date of the last rate increase, the operating costs of Italian power companies have been steadily increasing, mainly because the costs of new plants are higher than those of old plants. To avoid a further general rate increase, the price committee established in 1953 an "equalization fund" to compensate the companies for the higher cost of power produced in plants completed since 1947. The main source of this fund is a fairly substantial surcharge payable by industrial consumers. The fund was running since the middle of 1954 at a deficit which was quickly depleting a reserve left over from the balance of a thermal power equalization fund, which was abolished in 1953. Surcharges paid by industrial consumers to the equalization fund were therefore increased 50% in August 1955. This increase is estimated to enable the fund to operate without a deficit during 1956.

419. In the appraisal report covering last year's loan No. 117 IT to the Cassa, it was stated that the power companies involved in that loan had assumed in their forecasts an increase in the official co-efficient from 24 to 32 effective January 1, 1956 and a simultaneous reduction in the contributions from the equalization fund of 75%. This has not taken place. There has not been a change in the co-efficient nor a reduction in the contributions of the fund. Revenues of the power companies have been approximately the same as forecasted. The equalization fund which was to expire in the early part of 1956 has been extended until October 31, 1956. The private power companies have proposed that the surcharges referred to above be incorporated in the rates and that at the same time the equalization fund be terminated. This, however, is opposed by the municipal companies who serve few industrial consumers and therefore contribute less than they receive from the fund. It is likely that a compromise now being considered will be adopted, by which the equalization fund would be eliminated gradually over a period of four years and the surcharges be incorporated in the rates during the same period of time. Such a compromise appears to be acceptable to the majority of the power companies.

420. Up to now the revenues of the power companies collected from their customers, supplemented during the last years by the contributions of the equalization fund to cover the higher production cost of new power plants, have been sufficient to allow the companies to earn a reasonable rate of return on their investment. As far as concerns the next few years, the gradual incorporation into the rate structure of the surcharges now being paid by the consumers to the equalization fund would improve rather than deteriorate the companies' earning position. SRE and SME have assumed increases of 30% and 40% respectively in their average rates during the period 1956-1959. As power rates in Sicily are already substantially higher than on the continent, SGES has assumed an increase in its average rates of only 20% during the same period. These assumptions are considered realistic.

421. Although at present it is still unknown what particular regulations with regard to rates and the equalization fund will be put into effect after October next, there is no reason to suppose that any new system to be adopted would adversely affect the earnings of the power companies. In the circumstances the Bank does not consider it necessary to ask the Italian Government for an undertaking with respect to its future policy on electric rates, taking therefore the same position as it took last year when Loan No. 117 IT was made to the Cassa.

G. Security

422. As in the case of Loan No.117 IT the power companies have proposed that the necessary security provisions for the loan now being considered be satisfied in the form of suretyships to be given by the following companies:

Guarantors	Guarantees to be issued for
SRE and La Centrale	SIAL
SGES and Bastogi and Finelettrica	TIFEO
Bastogi and Finelettrica	SME

The guarantors are willing to guarantee jointly and severally all of the undertakings given to the Bank in the various Project Agreements and obligations of the borrowing 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. As already indicated in this report the companies who will guarantee the loans are all in strong financial positions. In view of this the proposed security arrangements are satisfactory.

H. Conclusions

423. The projects which are proposed to be financed by loans from the Cassa to SIAL, TIFEO and SME 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.

424. 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 their expansion.

425. Agreement has been reached with the Cassa and the companies concerned that: (1) project agreements would be obtained from each receiving a loan from the Cassa out of the proposed Bank loan; and (2) a special covenant from the parent companies concerned would be obtained to the effect that they will maintain a majority interest in the subsidiaries receiving Cassa loans.

426. Under these conditions, the proposed projects form a suitable basis for a Cassa loan from Bank funds as follows:

	Amount $ million equivalent	Period of Grace
SIAL	8.2	3½ years
TIFEO	10.5	2½ years
SME	6.5	3½ years
Total	25.2	

427. The useful life of the structures and equipment would justify a term of 20 years for these loans, with periods of grace as shown in the table above, determined on the basis of the construction period of the various projects involved.

VI. TECHNICAL SERVICES PROJECT

428. During its six years of operation, the Cassa has undertaken a large number of irrigation and land reclamation projects. In a program of such magnitude, there are a multitude of problems, aside from those connected with the preparation of the land and delivery of water to the farms, continually arising: coordination of the activities of the various Government agencies, Entes and Consorzi; settlement of farmers on the land; education of farmers in irrigation practices; operation and maintenance of the irrigation works; stimulation of industry and related development.

'29. In view of the difficulty of all these problems and the necessity f reaching early solutions if the full benefits of the various projects are o be realized within a reasonable time, the Bank has suggested, and the assa agreed, that its resources of technical skills be augmented by the use f consultants who have had past experience with similar problems in other arts of the world. It is particularly important, as the less difficult rojects are completed and the less attractive projects from the standpoint f the benefit-cost ratio are undertaken, that every available means should e used to keep project costs low and shorten the time required to bring rojects into full production.

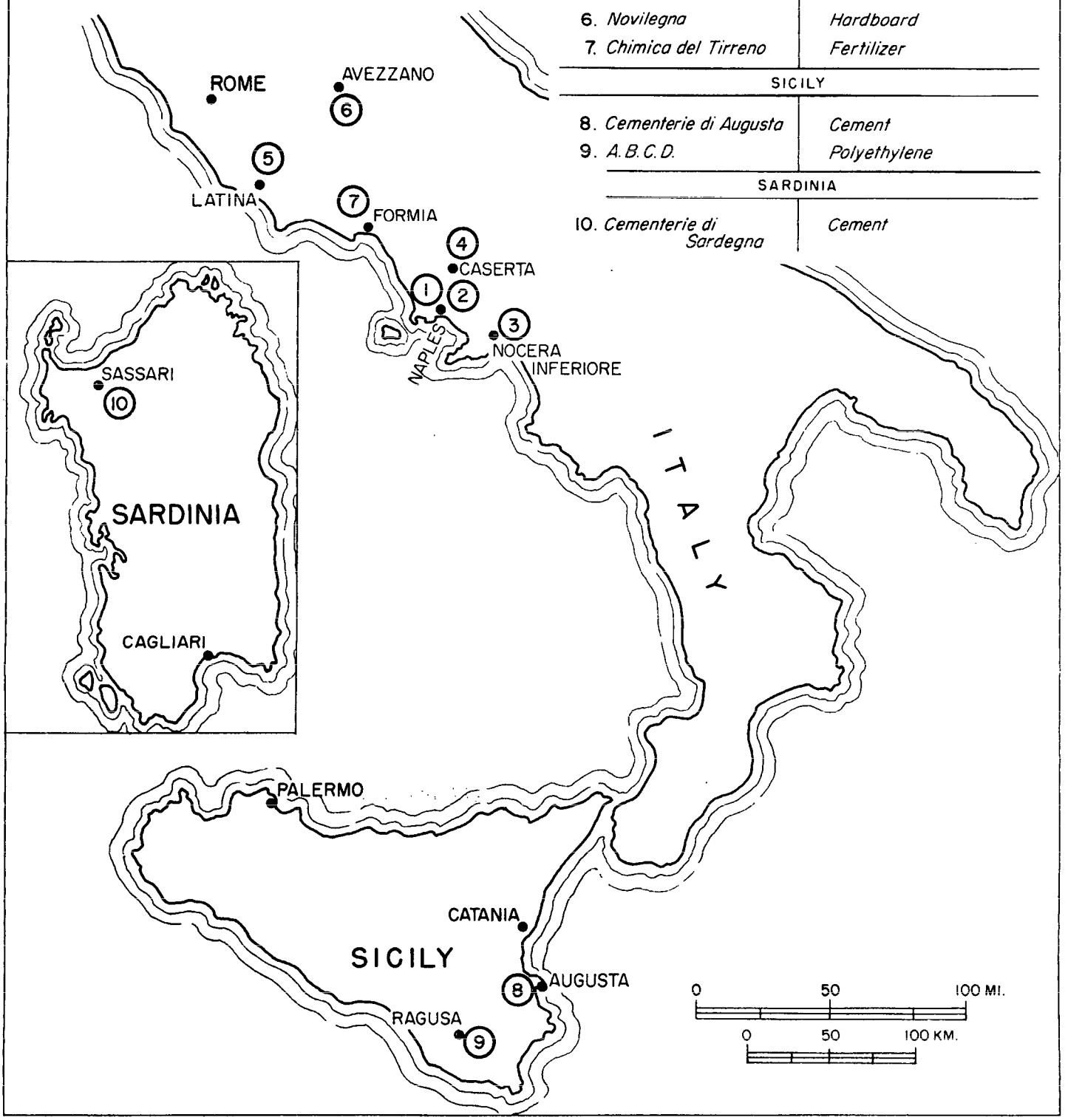
30. With the approval of the Bank, the Cassa has contracted with the evelopment and Resource Corporation of New York for technical services, dvice, assistance and consultation on problems pertaining to the Cassa rogram. This Corporation is headed by Messrs. David Lilienthal and Gordon lapp, former chairmen of the Tennessee Valley Authority, who, together with heir associates, have a considerable experience in the handling of problems f the development of rural areas.

31. Although the Cassa will use the services of the consultants for its rogram as a whole, the consultants will concentrate their efforts in the irst instance on the problems of the Flumendosa area on Sardinia. Such atters as the training of the farmers in the irrigated area, the provision f marketing arrangements to handle the increased agricultural output and the romotion of commercial and industrial possibilities arising as the result of he agricultural development will have early attention.

432. In view of the importance to the success of the Cassa program of activities of the kind which will be undertaken by the consultants, it is recommended that an amount of $465,000 be included in the proposed loan for the purpose of assisting the Cassa in the financing of the contracting of foreign consultants.

LOCATION OF INDUSTRIAL PROJECTS IN SOUTHERN ITALY

INDUSTRIAL PROJECT	PRODUCT
MAINLAND	
1. *Viberti*	*Bus and truck bodies Trailers*
2. *Fiat*	*Auto assembly*
3. *Forino*	*Vegetable cannery*
4. *Saint Gobain*	*Glass*
5. *Vetreria di Latina*	*Glass*
6. *Novilegna*	*Hardboard*
7. *Chimica del Tirreno*	*Fertilizer*
SICILY	
8. *Cementerie di Augusta*	*Cement*
9. *A.B.C.D.*	*Polyethylene*
SARDINIA	
10. *Cementerie di Sardegna*	*Cement*



JULY 1956

IBRD-278

ANNEX 2

F O R I N O

Financial Forecasts
(Million Lire)

	Construction			Expanded Operations		
	May 1/54 Apr.30/56	May 1/56 Apr.30/57	May 1/57 Apr.30/58	May 1/58 Apr.30/59	May 1/59 Apr.30/60	May 1/60 Apr.30/61
I. Earnings Estimates						
Production (% of normal capacity on project completion)	-	46	54	73	92	92
Operating Costs	1,010	707	850	950	1,225	1,225
Interest IBRD Loan	-	(*15)	(*22)	32	28	25
Depreciation	28	28	30	45	45	45
Taxes	-	5	6	8	10	10
Total Costs	1,038	740	886	1,035	1,308	1,305
Net Sales	1,055	755	930	1,100	1,466	1,466
Net Income	17	15	44	65	158	161
Net Income (as % of Capital plus Shareholders' Advances)	3	2	7	10	24	24
II. Source and Application of Funds						
Net Income before Interest	17	15	44	97	186	186
Depreciation Accruals	28	28	30	45	45	45
Share Capital	200	50	50	-	-	-
Shareholders' Advances	365	-	-	-	-	-
IBRD Loan	-	287	288	-	-	-
Other Loans	**77	-	-	-	-	-
Total Sources	687	380	412	142	231	231
Fixed Assets* (including original plant)	461	267	267	-	-	-
Net Current Assets	149	98	53	-	-	-
Service, IBRD Loan	**77	-	-	90	90	90
"Additional Assets"	-	15	92	52	141	141
Total Applications	687	380	412	142	231	231

	Construction			Expanded Operations		
	May 1/54 Apr.30/56	May 1/56 Apr.30/57	May 1/57 Apr.30/58	May 1/58 Apr.30/59	May 1/59 Apr.30/60	May 1/60 Apr.30/61
III. Balance Sheets (as of end of each fiscal year)						
Fixed Assets*	461	728	995	995	995	995
Less Depreciation	28	56	86	131	176	221
Net Fixed Assets	433	672	909	864	819	774
Net Current Assets	149	247	300	300	300	300
"Additional Assets"	-	15	107	159	300	441
Total Assets	582	934	1,316	1,323	1,419	1,515
Share Capital	200	250	300	300	300	300
Shareholders' Advances	365	365	365	365	365	365
Surplus	17	32	76	141	299	460
IBRD Loan	-	287	575	517	455	390
Total Liabilities	582	934	1,316	1,323	1,419	1,515

* Interest during construction capitalized
** Borrowing and repayment of local bank loans

F O R I N O

International Bank for
Reconstruction and Development
1818 H Street, N.W.
WASHINGTON 25, D.C.

Gentlmen:

(1) This will confirm certain understandings which have been reached during discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as Bank), the Cassa per Opere Straordinarie di Pubblico Interesse nell' Italia Meridionale (the Cassa), the Istituto per lo sviluppo Rconomico dell' Italia Meridionale (ISVEIMER), and Forino - S.p.A. (the Company).

(2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the area of the Cassa's competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to modernize and expand the Company's canning plant in Nocera Inferiore to produce yearly about 3,300 to 4,400 tons of tomato paste, 150,000 to 200,000 cases of canned whole tomatoes, 20,000 to 25,000 cases of tomato juice, 750 to 1,000 tons of peas, beans and other vegetables, and 800 to 1,000 tons of various fruits. We have informed you that the proforma Balance sheet, on completion of the expansion project, would be as follows:

Assets			Liabilities		
Fixed Assets	Lit.	995,000,000	Capital	Lit.	300,000,000
Depreciation	"	86,000,000	Surplus	"	76,000,000
Net Fixed Assets	"	909,000,000	Shareholders' Advances	"	365,000,000
Net Current Assets	"	300,000,000	IBRD Loan	"	575,000,000
Additional Assets	"	107,000,000			
	Lit.	1,316,000,000		Lit.	1,316,000,000

It is understood that the amounts shown as surplus and additional assets may be reduced by the amount of dividends paid during the interim period subject to the restriction of this letter.

(4) The cost of the expansion project should be considered as Lit. 1,150,000,000 composed of Lit. 850,000,000 for fixed assets and Lit. 300,000,000 for net current assets.

(5) We have been informed that if the proposed loan should be made, it would be made to the Company by ISVEIMER, to which the Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or ISVEIMER of the proposed loan you would required certain undertakings from the Company with respect to share capital, working capital and shareholders' advances.

(6) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Company will be outstanding, are that valid arrangements will be made, under which:

A. Except as the Bank, the Cassa and ISVEIMER shall otherwise agree:

I. The share capital shall be at least Lit.300,000,000 paid in as required;

II. Shareholders' advance, on completion of the project, will total at least the difference between Lit. 665,000,000 and paid in share capital;

B. If the completion of the project or its successful operation is hindered or delayed or is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by ISVEIMER to provide the necessary funds and when they are required;

C. Shareholders' advances provided under subparagraphs A or B -

I. Shall not be withdrawn;

II. Shall in all respects be subordinated to all debts of the Company; and

III. Interest or any other remuneration shall be payable and paid thereon only out of net profit and only to the extent that dividends would be payable thereon if such shareholders' advances had originally been paid in as share capital;

D. The undersigned will not, without the prior approval of the Cassa and ISVEIMER, pay dividends or make other payments to the shareholders or adopt any policy if such payments or policy will result in or envisage at any time after the completion of construction:

I. The excess of current assets over current liabilities being less than Lit. 300,000,000; or

II. The ratio of current assets to current liabilities being less than 1.5 : 1.

(7) For the purpose of this letter "current assets" shall be considered as cash and assets readly convertible to cash and all other assets which would, within one year in the ordinary course of the Company's business be converted into cash or assets readily convertible cash; and "current liabilities" shall 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 and undertakings set forth in paragraph (6) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof ISVEIMER agrees to make a loan to the Company for the above-mentioned purpose in the approximate amount of Lit. 575,000,000.

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

Yours truly,

Nocera Inferiore, June 23rd, 1956

FORINO S.p.A.

Il Presidente

/s/ Giuseppe Ajelli

NOVILEGNI

Financial Forecasts
(Million Lire)

	Construction Year 1	Operation Year 2	Operation Year 3	Operation Year 4
I. Earnings Estimates				
Production (% of normal capacity)		50	75	100
Production tons		9,000	13,500	18,000
Operating Costs		412	604	792
Depreciation		110	110	110
Interest		43	42	39
Taxes		50	75	100
Total Costs		615	831	1,041
Sales		585	877	1,170
Net Income		(-)30	46	129
Net Income (as % of Share Capital and Advances)		-	5.4	15.2
II. Source and Application of Funds				
Net Income before Interest	-	13	88	168
Depreciation	-	110	110	110
Share Capital	250	-	-	-
Shareholders' Advances	596	-	-	-
IBRD Loan	564	-	-	-
Total Sources	1,410	123	198	278
Fixed Assets	1,100	-	-	-
Current Assets	260	-	-	-
IBRD Debt Service	22*	43	102	102
"Additional Assets"	28	80	96	176
Total Applications	1,410	123	198	278

	Construction Year 1	Operation Year 2	Year 3	Year 4
III. Balance Sheets (as of end of each year)				
Fixed Assets*	1,122	1,122	1,122	1,122
Less Depreciation	-	110	220	330
Net Fixed Assets	1,122	1,012	902	792
Net Current Assets	260	260	260	260
"Additional Assets"	28**	108	204	380
Total Assets	1,410	1,380	1,366	1,432
Share Capital	250	250	250	250
Shareholders' Advances	596	596	596	596
Surplus	-	(-)30	16	145
IBRD Loan	564	564	504	441
Total Liabilities	1,410	1,380	1,366	1,432

* Interest during construction capitalized
** Provided to cover possible deficit in first year of operation without impairing working capital

ANNEX 5

N O V I L E G N I

CP/AG/sc/2213/F57 June 25th 1956

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

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 the Cassa per Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa), Istituto per lo Sviluppo Economico dell'Italia Meridionale (ISVEIMER), and Novilegni (the Company).-

(2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the area of the Cassa's competence.-

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate at Avezzano a hardboard plant with an average capacity of 18,000 tons per year. We have informed you that the pro forma balance sheet of the company, on completion of the project, would be as follows:

Assets		Liabilities	
Fixed Assets	Lit. 1,122,000,000	Share Capital	Lit. 250,000,000
Net Current Assets	" 260,000,000	Shareholders' Advances	" 596,000,000
"Additional Assets"	" 28,000,000	IBRD Loan	" 564,000,000
	Lit. 1,410,000,000		Lit. 1,410,000,000

The cost of the project should be considered as Lit. 1,382,000,000 composed of Lit. 1,122,000,000 for fixed assets and Lit. 260,000,000 for net current assets.

(4) We have been informed that if the proposed loan should be made, it would be made to the Company by ISVEIMER, to which the Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or ISVEIMER of the proposed loan you would require certain undertakings from the Company with respect to share capital, working capital and shareholders' advances.

(5) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Company will be outstanding, are that valid arrangements will be made under which:

A. Except as the Bank, the Cassa and ISVEIMER shall otherwise agree, the share capital of the company shall be at least Lit. 250,000,000 paid in as required and shareholders' advances, on completion of the project, will total at least the difference between Lit. 846,000,000 and paid in share capital;

B. If at anytime the completion of the project or its successful operation is hindered or delayed or is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by ISVEIMER to provide the necessary funds as and when they are required;

C. Shareholders' advances provided under subparagraphs A and B:

I. Shall not be withdrawn;

II. Shall in all respects be subordinated to all debts of the Company; and

III. Interest or any other remuneration shall be payable and paid thereon only out of net profits and only to the extent that dividends would be payable thereon if such shareholders' advances had originally been paid in as share capital;

D. The undersigned will not, without approval of the Cassa and ISVEIMER, pay dividends or make any other payments to shareholders or adopt any policy if such payments or policy will result in or envisage at any time after completion of the project:

I. The excess of current assets over current liabilities being less than Lit. 260,000,000; or

II. The ratio of current assets to current liabilities being less than 2 : 1.-

(6) For the purpose of this letter "current assets" shall be considered as cash and assets readily convertible to cash and other assets which would, within one year in the ordinary course of the Company's business, be converted into cash or assets readily convertible into cash; and that "current liabilities" shall 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 assurances and undertakings 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 ISVEIMER agrees to make a loan to the Company for the above-mentioned purpose in the appoximate amount of Lit. 564,000,000.-

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

Yours truly,

GLI AMMINISTRATORI DELEGATI

(Prof. Giuseppe Agnino - Dott.Piero Conti)

CHIMICA DEL TIRRENO

Financial Forecasts
(Million Lire)

	Construction		Operation		
	Year 1	Year 2	Year 3	Year 4	Year 5
I. Earnings Estimates					
Production (% of normal capacity)			75	100	100
Operating Costs			1,242	1,487	1,487
Depreciation			280	280	280
Interest			86	79	72
Taxes			8	10	10
Total Costs			1,616	1,856	1,849
Net Sales			1,750	2,341	2,341
Net Income			134	485	492
Net Income (as % of Share Capital plus Shareholders' Advances)			8	30	30
II. Source and Application of Funds					
Net Income before Interest	-	-	220	564	564
Depreciation	-	-	280	280	280
Share Capital	315	485	-	-	-
Shareholders' Advances	315	515	-	-	-
IBRD Loan	800	800	-	-	-
Total Sources	1,430	1,800	500	844	844
Fixed Assets (Project	1,380	1,370	-	-	-
Fixed Assets (Pilot Plant	30	-	-	-	-
Net Current Assets	-	400	-	-	-
Service, IBRD Loan	20*	30*	210	210	210
"Additional Assets"	-	-	290	634	634
Total Applications	1,430	1,800	500	844	844

	Construction		Operation		
	Year 1	Year 2	Year 3	Year 4	Year 5
III. Balance Sheets (at year ends)					
Fixed Assets (Project*	1,400	2,800	2,800	2,800	2,800
Fixed Assets (Pilot Plant	30	30	30	30	30
Total Fixed Assets	1,430	2,830	2,830	2,830	2,830
Less Depreciation	-	-	280	560	840
Net Fixed Assets	1,430	2,830	2,550	2,270	1,990
Net Current Assets	-	400	400	400	400
"Additional Assets"	-	-	290	924	1,558
Total Assets	1,430	3,230	3,240	3,594	3,948
Share Capital	315	800	800	800	800
Shareholders' Advances	315	830	830	830	830
Surplus	-	-	134	619	1,111
IBRD Loan	800	1,600	1,476	1,345	1,207
Total Liabilities	1,430	3,230	3,240	3,594	3,948

* Interest during construction capitalized

ANNEX 7

CHIMICA DEL TIRRENO

25/6/56

International Bank for

Reconstruction and Development

1818 H Street, N.W.

Washington 25, D.C.

Gentlemen:

1) This will confirm certain understandings reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), the Cassa per Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa), Istituto per lo Sviluppo Economico dell' Italia Meridionale (ISVEIMER) and Chimica del Tirreno (theCompany).

2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the area of the Cassa's competence.

3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate near Formia a fertilizer plant with a normal capacity of 75,000 tons of ammoniated super phosphate per year. We have informed you that the pro-forma balance sheet of the company on completion of the project, would be as follows :

Fixed (Project Assets(Pilot Plant	Lit.	2,800,000,000 30,000,000	Share Capital	Lit.	800,000,000
		2,830,000,000	Shareholders' Advances		830,000,000
Net Current Assets		400,000,000	IBRD Loan		1,600,000,000
	Lit.	3,230,000,000		Lit.	3,230,000,000

4) The cost of the project should be considered as Lit. 2,800,000,000 for fixed assets, and Lit. 400,000,000 for net current assets.

5) We have been informed that if the proposed loan should be made, it will be made to the Company by ISVEIMER, to which the Cassa would lend a portion of the Bank's loan for thepurpose. You have said that before you could approve favorable consideration by the Cassa or ISVEIMER of the proposed loan you would require certain undertakings from the Company with respect to share capital, working capital and shareholder's adwances.

6) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Company will be outstanding, are that valid arrangements be made, under which:

A. Except as the Bank, the Cassa and ISVEIMER shall otherwise agree, the share capital of the Company shall be at least Lit. 800,000,000, paid in as required, and shareholders' advances, on completion of the plant, will total the difference between Lit. 1,630,000,000 and paid in share capital;

B. If the completion of the project or its successful operation is hindered or delayed or is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by ISVEIMER to provide the necessary funds as and when they are required.

C. Shareholders' advances provided under subparagraphs A or B:

I. Shall not be withdrawn;

II. Shall in all respects be subordinated to all debts of the Company; and

III. Interest or any other remuneration shall be payable and paid thereon only out of net profits and only to the extent that dividends would be payable thereon if such shareholders' advances had originally been paid in as share capital.

D. The undersigned will not, without approval of the Cassa and ISVEIMER, pay dividends or make any other payments to shareholders or adopt any policy if such payments or policy will result in or envisage at any time after the completion of construction :

I. The excess of current assets over current liabilities being less than Lit. 400,000,000; or

II. The ratio of current assets to current liabilities being less than 2 : 1

7) For the purpose of this letter "current assets" shall be considered as cash and assets readily convertible to cash and all other assets which would, within oneyear in the ordinary course of the Company's business be converted into cash or assets readily convertible into cash; and "current liabilities" shall 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 assurances and undertakings set forth in paragraph (6) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof ISVEIMER agrees to make a loan to the Company for the above mentioned purpose in the approximate amount of Lit. 1,600,000,000.

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

Yours truly,

Ugo Cusinelli

Managing director

ANNEX 8

VETRERIA DI LATINA

Financial Forecasts
(Million Lire)

	Construction		Operation		
	1956/57	1957/58	1958/59	1959/60	1960/61
I. Earnings Estimates					
Production (% of normal capacity)	-	-	100	100	100
Operating Costs	-	-	425	425	425
Interest, IBRD Loan	(*10)	(*20)	22	20	17
Depreciation	-	-	68	68	68
Taxes	-	-	-	-	-
Total Costs	-	-	515	513	510
Net Sales	-	-	610	610	610
Net Income			95	97	100
Net Income (as % of share capital and shareholders' advances)			28	28	29
II. Source and Application of Funds					
Net Income before Interest	-	-	117	117	117
Depreciation Accruals	-	-	68	68	68
Share Capital	50	50	-	-	-
Shareholders' Advances	90	150	-	-	-
IBRD Loan	200	200	-	-	-
Total Sources	340	400	185	185	185
Fixed Assets	325	325	-	-	-
Net Current Assets	5	55	-	-	-
IBRD Debt Service	*10	*20	53	53	53
"Additional Assets"	-	-	132	132	132
Total Applications	340	400	185	185	185

	Construction		Operation		
	1956/57	1957/58	1958/59	1959/60	1960/61
III. Balance Sheets (at end of each fiscal year)					
Fixed Assets*	335	680	680	680	680
Less Depreciation	-	-	68	136	204
Net Fixed Assets	335	680	612	544	476
Net Current Assets	5	60	60	60	60
"Additional Assets"	-	-	132	264	396
Total Assets	340	740	804	868	932
Share Capital	50	100	100	100	100
Shareholders' Advances	90	240	240	240	240
Surplus	-	-	95	192	292
IBRD Loan	200	400	369	336	300
Total Liabilities	340	740	804	868	932

* Interest during construction capitalized

VETRERIA DI LATINA

Latina, 25 guigno 1956

International Bank for
Reconstruction and Development

1818 H Street, N.W.

Washington 25, D.C.

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), the Cassa per Opere Straordinarie di Pubblico Interesse nell' Italia Meridionale (the Cassa), Istituto per lo Sviluppo Economico dell' Italia Meridionale (ISVEIMER), and Vetreria di Latina (the Company).

(2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the area of the Cassa's competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct a pressed glass plant in Latina with a capacity of approximately one million square meters per year. We have informed you tha the pro forma balance sheet of the company, on completion of the project, would be as follows:

Fixed Assets	Lit. 680.000.000	Share Capital	Lit. 100.000.000
Less Depreciation	-	Shareholders' Advances	240.000.000
Net Fixed Assets	680.000.000		
Net Current Assets	60.000.000	IBRD Loan	400.000.000
	Lit. 740.000.000		Lit. 740.000.000

(4) The cost of the project should be considered as Lit.680.000.000 for fixed assets, and Lit. 60.000.000 for net current assets.

(5) We have been informed that if the proposed loan should be made, it would be made to the Company by Isveimer, to which the Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or ISVEIMER of the proposed loan you would require certain undertakings from the Company with respect to share capital, working capital and shareholders' advances.

(6) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Company will be outstanding, are that valid arrangements will be made, under which:

A. Except as the Bank, the Cassa and ISVEIMER shall otherwise aree, the share capital of the Company shall be at least Lit. 100 million paid in as required and shareholders' advances, on completion of the project, shall total at least the difference between Lit. 340.000.000 and paid in share capital.

B. If the completion of the project or its successful operation is hindered or delayed or is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by ISVEIMER to provide the necessary funds as and when they are required.

C. Shareholders' advances provided under subparagraphs A or B:

I. Shall not be withdrawn;

II. Shall in all respects be subordinated to all debts of the Company; and

III. Interest or any other remuneration shall be payable and paid thereon only out of net profits and only to the extent that dividends would be payable thereon if such shareholders' advances had originally been paid in as share capital;

D. The undersigned will not, without approval of the Cassa and ISVEIMER, pay dividends or make any other payments to shareholders or adopt any policy if such payments or policy will result in or envisage at any time after the completion of the plant:

I. The excess of current assets over current liabilities being less than Lit. 60.000.000; or

II. The ratio of current assets to current liabilities being less than 2 : 1.

(7) For the purpose of this letter "current assets" shall 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 Company's business be converted into cash or assets readily convertible into cash; and that "current liabilities" shall 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 assurances and undertakings set forth in paragraph (6) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof ISVEIMER agrees to make a loan to the Company for the above-mentioned purpose in the approximate amount of Lit. 400.000.000.-

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

Yours very truly,

VETRERIA DI LATINA

Il Presidente

SAINT GOBAIN - PISA BRANCH

Financial Statements
(Million Lire)

	1951	1952	1953	1954	1955
I. Balance Sheets (as of December 31, each year)					
Fixed Assets	4,008	4,541	4,891	5,498	6,283
Less Depreciation Allowance	575	822	1,114	1,428	2,017
Net Fixed Assets	3,433	3,719	3,777	4,070	4,266
Current Assets	2,144	2,520	2,519	2,662	3,490
Other Assets	114	105	104	107	105
Total Assets	5,691	6,344	6,400	6,839	7,861
Head Office Account	4,277	4,647	4,733	4,962	5,465
Reserves	1,003	1,152	1,227	1,374	1,704
Current Liabilities	411	545	440	503	692
Total Liabilities	5,691	6,344	6,400	6,839	7,861
II. Income Statements					
Net Sales	4,090	4,676	5,023	5,424	6,739
Expenditures	3,848	4,292	4,513	5,022	6,268
Net Income after Taxes	242	384	510	402	471

SAINT GOBAIN, CHAUNY ET CIREY

Balance Sheets
(Million Fr. Frs.)

	Dec. 31 1951	Dec. 31 1952	Dec. 31 1953	Dec. 31 1954
ASSETS				
Current Assets				
Cash	763	1,232	1,573	1,130
Receivables, net*	8,134	8,464	9,891	11,323
Inventories*	9,467	10,458	9,420	10,359
Other	129	176	204	236
Total	18,493	20,330	21,088	23,048
Investments*	6,208	7,025	8,336	9,877
Fixed Assets, net*	24,164	25,506	24,639	24,292
Other Assets	112	253	257	230
Total Assets	48,977	53,114	54,320	57,447
LIABILITIES AND NET WORTH				
Current Liabilities				
Banks	804	246	70	277
Loans and Bonds	76	535	142	149
Payables	9,413	8,890	10,229	10,378
Other	98	131	79	129
Total	10,391	9,802	10,520	10,933
Long term debt	4,336	7,438	6,932	5,921
Reserves for contingencies**	5,676	6,431	6,745	7,266
Capital	4,122	4,946	4,946	7,007
Revaluation Surplus	16,889	16,889	16,889	16,889
Surplus and Reserves	7,563	7,608	8,288	9,431
Total Net Worth	28,574	29,443	30,123	33,327
Total Liabilities and Net Worth	48,977	53,114	54,320	57,447
Ratios:				
Current Assets/Current Liabilities	1.8	2.1	2.0	2.1
Net Worth/Total Liabilities and Net Worth	0.58	0.55	0.55	0.58
Net Profit for Year	1,316	1,043	1,010	1,259
Return on Share Capital	32%	21%	20%	18%
Return on Total Net Worth	4.6%	3.5%	3.3%	3.8%

* Figures shown are net after substantial allowances for depreciation

** Apparently includes net worth items of undetermined amount

SAINT GOBAIN - CASERTA BRANCH

Financial Forecasts
(Million Lire)

	Construction		Operation				
	1956-57	1958	1959	1960	1961	1962	1963
I. Earnings Estimates							
Production (% of capacity)	-	-	100	100	100	100	100
Operating Costs	-	-	1,612	1,612	1,612	1,612	1,612
Interest	(24)*	(93)*	130	106	80	50	29
Depreciation	-	-	416	416	416	416	416
Taxes	-	-	67	85	86	89	93
Total Costs	-	-	2,225	2,219	2,194	2,167	2,150
Sales	-	-	2,550	2,550	2,550	2,550	2,550
Net Income	-	-	325	331	356	383	400
Net Income (as % of Equity Advances)	-	-	11	11	12	13	13
II. Source and Application of Funds							
Net Income before Interest	-	-	455	437	436	433	429
Depreciation Accruals	-	-	416	416	416	416	416
Rehabilitation Reserve Accruals	-	-	80	80	85	90	95
Equity (Advances)	950	2,000	-	-	-	-	-
IBRD Loan	860	1,640	=	-	-	-	-
Total Sources	1,810	3,640	951	933	937	939	940
Fixed Assets	1,786	3,477	-	-	-	-	-
Net Current Assets	-	70	270	-	-	-	-
Service IBRD Loan	*24	*93	579	579	579	579	579
"Additional Assets"	-	-	102	354	358	360	361
Total Applications	1,810	3,640	951	933	937	939	940

	Construction		Operation				
	1956-57	1958	1959	1960	1961	1962	1963
III. Balance Sheets (as of year end)							
Fixed Assets*	1,810	5,380	5,380	5,380	5,380	5,380	5,380
Less Depreciation Allowance	-	-	416	832	1,248	1,664	2.080
Net Fixed Assets	1,810	5,380	4,964	4,548	4,132	3,716	3,300
Net Current Assets	-	70	340	340	340	340	340
"Additional Assets"	-	-	102	456	814	1,174	1,535
Total Assets	1,810	5,450	5,406	5,344	5,286	5,230	5,175
Equity (Advances)	950	2,950	2,950	2,950	2,950	2,950	2,950
Surplus	-	-	325	656	1,012	1,395	1,795
Rehabilitation Reserve	-	-	80	160	245	335	430
IBRD Loan	860	2,500	2,051	1,578	1,079	550	-
Total Liabilities	1,810	5,450	5,406	5,344	5,286	5,230	5,175

* Interest during construction capitalized

FABBRICO PISANA di SPECCHI e LASTRE COLATE di VETRO

International Bank for
Reconstruction and Development
1818 H Street, N.W.

WASHINGTON 25, D.C.

20th June 1956

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), the Cassa per Opere Straordinarie di Pubblico Interesse nell' Italia Meridionale (the Cassa), Istituto per lo Sviluppo Economico dell'Italia Meridionale (ISVEIMER), and Fabbrica Pisana di Specchi e Lastre Colate di Vetro della Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint Gobain, Chauny & Cirey (Fabbrica Pisana).

(2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the area of the Cassa's competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct a glass plant near Caserta with a capacity of about one million square meters of pressed glass and 650,000 square meters of plate glass per year. We have informed you that the pro forma balance sheet of the Caserta plant, on completion of the project, would be as follows:

Assets		Liabilities	
Fixed Assets	Lit. 5,380,000,000	Fabbrica Pisana advances	Lit. 2,950,000,000
Net Current assets	" 70,000,000	IBRD Loan	" 2,500,000,000
	Lit. 5,450,000,000		Lit. 5,450,000,000

(4) We have explained that during the first 12 months of operations the net current assets requirement will be increased to Lit. 340,000,000. The increase of Lit. 270,000,000 will be provided from earnings and depreciation accruals during the year or through additional Fabbrica Pisana advances.

(5) We have been informed that if the proposed loan should be made, it would be made to the Fabbrica Pisana by ISVEIMER, to which Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or ISVEIMER of the proposed loan, you would require certain undertakings from the Fabbrica Pisana with respect to Fabbrica Pisana advances and working capital.

(6) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Fabbrica Pisana will be outstanding, are that valid arrangements will be made, under which:

A. Except as the Bank, the Cassa and ISVEIMER shall otherwise agree, the Fabbrica Pisana advances shall be at least Lit. 2,950,000,000 paid in as required;

B. If the completion of the project or its successful operation is hindered or delayed or is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by ISVEIMER to provide the necessary funds as and when they are required;

C. For Fabbrica Pisana advances to be provided under subparagraph A, and if any new funds provided under subparagraph B are made available in the form of Fabbrica Pisana advances.

I. Such advances shall not be withdrawn;

II. Such advances shall in all respects be subordinated to all debts of the Fabbrica Pisana; and

III. Interest or any other remuneration shall be payable and paid thereon only out of net profits and only to the extent that dividends would be payable thereon if such Fabbrica Pisana advances had originally been paid in as share capital;

D. The undersigned will not, without approval of the Cassa and ISVEIMER, make any transfers of profit to the Mother Company or adopt any policy if such transfers or policy will result in or envisage :

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

II. The excess of current essets over current liabilities being less, at any time after the end of the first 12 months of operations, than Lit. 340,000,000.

(7) For the purpose of this letter "current assets" shall 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 Fabbrica Pisana business be converted into cash or assets readily convertible into cash; and "current liabilities" shall 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 from the proceeds thereof ISVEIMER agrees to make a loan to the Fabbrica Pisana for the above-mentioned purpose in the approximate amount of Lit. 2,500,000,000.

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

Yours truly,

Fabbrica Pisana Specchi e Lastre Colate di Vetro

Il Direttore Generale

V I B E R T I

Financial Forecasts
(Million Lire)

	Construction Naples Plant - Operation two other Plants		Operation all three plants		
	1956	1957	1958	1959	1960
I. Earnings Estimates					
Production (% of 1958 normal capacity)	62	65	75	83	90
Operating Costs	6,633	6,869	7,763	8,671	9,415
Interest - IBRD Loan	(*10)	(*34)	46	43	39
- Bonds	47	46	45	42	41
Depreciation	145	145	263	263	263
Taxes	105	110	120	125	131
Total Costs	6,930	7,170	8,237	9,144	9,889
Net Sales	7,200	7,500	8,500	9,500	10,283
Net Income	270	330	263	356	394
Net Income (as % of Share Capital)	36	44	35	47	53
II. Source and Application of Funds					
Net Income before Interest	317	376	354	441	474
Depreciation Accruals	145	145	263	263	263
Shareholders' Advances	-	-	-	-	-
Bond Receipts	250	-	-	-	-
IBRD Loan	378	462	-	-	-
Total Sources	1,090	983	617	704	737
Fixed Assets - Naples Plant	720	451	-	-	-
- Other Plants	100	100	30	180	180
Net Current Assets	191	309	-	-	-
Service, IBRD Loan	*10	*34	110	110	110
Service, Bonds	69	69	69	69	69
"Additional Assets"	-	20	408	345	378
Total Applications	1,090	983	617	704	737

	1955	1956	1957	1958	1959	1960
III. Balance Sheets (as of end of each calendar year)						
Fixed Assets*	1,698	2,528	3,113	3,143	3,323	3,503
Less Depreciation	724	869	1,014	1,277	1,540	1,803
Net Fixed Assets	974	1,659	2,099	1,866	1,783	1,700
Investments and Other Assets	209	209	209	209	209	209
Net Current Assets	1,281	1,472	1,781	1,781	1,781	1,781
Bond Receipts Fund	250	-	-	-	-	-
"Additional Assets"	-	-	20	428	773	1,151
Total Assets	2,714	3,340	4,109	4,284	4,546	4,841
Share Capital	750	750	750	750	750	750
Surplus	844	1,114	1,444	1,707	2,063	2,457
Bonds	705	683	660	636	609	581
IBRD Loan	-	378	840	776	709	638
Reserve for Employee Severance	415	415	415	415	415	415
Total Liabilities	2,714	3,340	4,109	4,284	4,546	4,841

*Interest during construction capitalized

ANNEX 15

OFFICINE VIBERTI

June 19th, 1956

Dir. Amm. Bm/ja

Messrs.

International Bank for
Reconstruction and Development

1818 H Street, N. W.
WASHINGTON 25, D. C.

Gentlemen:

(1) This will confirm certain understandings reached during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank, the Cassa per opere straordinarie di pubblico interesse nell'Italia Meridionale ("the Cassa"), Istituto per lo sviluppo economico della Italia Meridionale ("ISVEIMER") and Officine Viberti ("the Company").

(2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the areas of the Cassa's competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project for the construction of a motor vehicle body and trailer plant at Naples with capacity of 1,400 truck and bus bodies and trailers per year. We have informed you that the proforma balance sheet of the Company, on completion of the project, would be as follows:

Fixed Assets	Lit. 3,113,000,000	Capital	Lit. 750,000,000
Less Depreciation	1,014,000,000	Surplus & Reserves	1,444,000,000
		Bonds	660,000,000
Net Fixed Assets	2,099,000,000		
Investments and other Assets	209,000,000	IBRD Loan	840,000,000
Net Current Assets	1,781,000,000	Legal Reserve	415,000,000
"Additional Assets"	20,000,000		
	Lit. 4,109,000,000		Lit. 4,109,000,000

It is understood that the amounts shown as surplus and additional assets may be reduced by the amount of dividends paid during the interim period subject to the restrictions of this letter.

(4) The cost of the new plant should be considered as Lit. 1,474 million for additional fixed assets, and Lit. 500 million for additional net current assets.

(5) We have been informed that if the proposed loan should be made, it will be made to the Company by ISVEIMER, to which the Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or ISVEIMER of the proposed loan you would require certain undertakings from the Company with respect to the treatment of shareholders' advances and working capital.

(6) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Company will be outstanding are that valid arrangements be made, under which:

A. Except as the Bank, the Cassa and ISVEIMER shall otherwise agree, the share capital of the Company shall be Lit. 750,000,000, fully paid in;

B. If the completion of the project or its successful operation is hindered or delayed or is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by ISVEIMER to provide the necessary funds as and when they are required;

C. Shareholders' advances provided under subparagraph B:

I. Shall not be withdrawn;

II. Shall in all respects be subordinated to all debts of the Company; and

III. Interest or any other remuneration shall be payable and paid thereon only out of net profits and only to the extent that dividends would be payable thereon if such shareholders' advances had originally been paid in as share capital;

D. The undersigned will not, without approval of the Cassa and ISVEIMER, pay dividends or make any other payments to shareholders, or adopt any policy if such payments or policy will result in or envisage at any time after the completion of construction of the Naples plant:

I. The excess of current assets over current liabilities being less than Lit. 1,400,000,000; or

II. The ratio of current assets to current liabilities being less than 1.75 : 1.

(7) For the purpose of this letter "current assets" shall 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 Company's business be converted into cash or assets readily convertible into cash; and "current liabilities" shall 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 Company hereby gives you the assurance and undertakings set forth in paragraph (6) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof ISVEIMER agrees to make a loan to the Company for the above mentioned purpose in the approximate amount of Lit. 840,000,000.

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

Yours truly,

OFFICINE VIBERTI

Societa per Azioni

L'amministratore Unico

F I A T

Balance Sheets
(Billion Lire)

ASSETS	Dec. 31 1952	Dec. 31 1953	Dec. 31 1954	Dec. 31 1955
Current Assets				
Cash	24.9	54.4	65.2	47.3
Receivables and marketable securities	24.8	29.7	36.1	42.4
Inventories	39.0	63.4	43.6	44.9
Other	1.6	4.1	2.4	5.5
Total	90.3	151.6	147.3	140.1
Investments in Subsidiaries	31.8	39.4	49.5	60.0
Net Fixed Assets	103.0	105.4	116.5	132.5
Other Assets	7.6	4.8	1.9	2.6
Total Assets	232.7	301.2	315.2	335.2
LIABILITIES AND NET WORTH				
Current Liabilities				
Due to Banks	5.5	3.1	2.1	1.1
Current Maturities of Debt	5.7	4.1	5.0	2.6
Payables	39.4	52.1	52.4	62.6
Others	24.2	29.5	28.5	27.3
Total	74.8	88.8	88.0	93.6
Long and medium term debt	58.0	60.8	65.9	70.2
Capital	36.0	57.0	57.0	57.0
Earned Surplus	6.6	11.3	14.8	18.7
Revaluation Surplus	53.9	64.9	67.7	68.0
Reserves	3.4	18.4	21.8	27.7
Total Net Worth	157.9	212.4	227.2	241.6
Total Liabilities and Net Worth	232.7	301.2	315.2	335.2
Ratios:				
Current Assets/Current Liabilities	1.20	1.71	1.68	1.50
Net Worth/Total Liabilities and Net Worth	0.68	0.71	0.72	0.72

F I A T

Income Statements
(Billion Lire)

	1952	1953	1954	1955
Sales	177.6	217.6	248.1	279.4
Other Income	5.6	6.5	8.7	10.9
Total Income	183.2	224.1	256.8	290.3
Expenditures	177.8	214.5	246.2	277.6
Net Profit	5.4	9.6	10.6	12.7
Net Profit as % of Net Worth	3.4	4.5	4.7	5.3
Net Profit as % of Share Capital	15.0	16.8	18.7	22.2
Net Profit as % of Sales	3.0	4.4	4.3	4.5

FIAT - NAPLES PLANT

Financial Forecasts
(Million Lire)

	Construction		Operation				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
I. Earnings Estimates							
Production (% of normal 1 shift capacity)							
Spare parts	-	-	36	60	100	100	100
Cars	-	-	63	84	100	100	100
Operating Costs	-	-	6,376	10,077	12,561	12,360	12,147
Sales Costs	-	-	750	1,200	1,520	1,520	1,520
Depreciation	-	-	378	378	378	378	378
Interest	(70)*	(130)*	162	149	136	121	111
Total Costs	-	-	7,666	11,804	14,595	14,379	14,156
Net Sales	-	-	7,500	12,000	15,200	15,200	15,200
Net Income	-	-	(-)166	196	605	821	1,044
Net Income (as % of long-term investment of Fiat funds in plant)	-	-	Loss	5	15	20	26
II. Source and Application of Funds							
Net Income before interest	-	-	(-)4	345	741	942	1,155
Depreciation Accruals	-	-	378	378	378	378	378
Head Office Advances:							
Long-term	2,000	2,000	-	-	-	-	-
Short-term	-	-	1,420	-	-	-	-
IBRD Loan	1,500	1,500	-	-	-	-	-
Total Sources	3,500	3,500	1,794	723	1,119	1,320	1,533
Fixed Assets	3,430	2,870	-	-	-	-	-
Net Current Assets	-	500	1,400	-	-	-	-
Service, IBRD Loan	*70	*130	394	394	394	394	394
"Additional Assets"	-	-	-	329	725	926	1,139
Total Applications	3,500	3,500	1,794	723	1,119	1,320	1,533

	Construction		Operation				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
III. Balance Sheets (as of end of each year)							
Fixed Assets*	3,500	6,500	6,500	6,500	6,500	6,500	6,500
Less Depreciation	-	-	378	756	1,134	1,512	1,890
Net Fixed Assets	3,500	6,500	6,122	5,744	5,366	4,988	4,610
Current Assets	-	500	1,900	1,900	1,900	1,900	1,900
"Additional Assets"	-	-	-	329	1,054	1,980	3,119
Total Assets	3,500	7,000	8,022	7,973	8,320	8,868	9,629
Head Office -							
Long-term advances	2,000	4,000	4,000	4,000	4,000	4,000	4,000
Short-term "	-	-	1,420	1,420	1,420	1,420	1,420
Surplus	-	-	(-)166	30	635	1,456	2,500
IBRD Loan	1,500	3,000	2,768	2,523	2,265	1,992	1,709
Total Liabilities	3,500	7,000	8,022	7,973	8,320	8,868	9,629

*Interest during construction capitalized

ANNEX 18

F I A T

June 16, 1956

SG.18956

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

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), the Cassa per Opere Straordinarie di Pubblico Interesse nell'Italia Meridionale (the Cassa), Istituto per lo Sviluppo Economico dell'Italia Meridionale (ISVEIMER) and FIAT (the Company).

(2) You have informed us that the Bank is considering a long to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the area of the Cassa's competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate at Naples an automobile assembly and parts plant with an annual capacity of about 30,000 cars and 200 tons of spare parts. We have informed you that the pro forma balance sheet of the Naples plant, on completion of the project, would be as follows:

Fixed Assets	Lit. 6,500,000,000	Head Office Advances	Lit. 4,000,000,000
Current Assets	" 500,000,000	IBRD Loan	" 3,000,000,000
	Lit. 7,000,000,000		Lit. 7,000,000,000

(4) We have been informed that if the proposed loan should be made, it would be made to the Company by ISVEIMER, to which the Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or ISVEIMER of the proposed loan you would require certain undertakings from the Company with respect to head office advances and working capital.

(5) The assurances which you have requested, to be effective while any part of the loan to the Company will be outstanding, are that the Company will provide the necessary funds as and when required, to supplement the Loan to be made by ISVEIMER, in order to complete the proposed plant and to provide it with the necessary working capital.

(6) The undersigned hereby gives you the assurances 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 ISVEIMER agrees to make a loan to the Company for the above-mentioned purpose in the approximate amount of Lit. 3,000,000,000.

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

Yours truly,

FIAT
SOCIETA PER AZIONI
Il Presidente
E Amministratore Delegato
(V. Valletta)

A.B.C.D.

Financial Forecasts
(for fiscal years ending Sept. 30)
(Million Lire)

	Construction New Project Operation Existing Plant				Operations All Facilities		
	1956	1957	1958	1959	1960	1961	1962
I. Earnings Estimates							
Production (% of 1961 normal capacity	40	50	50	75	85	100	100
Operating Costs	2,902	3,683	3,597	4,795	5,156	6,134	6,147
Interest IBRD Loan	-	(60)*	(126)*	(165)*	165	148	129
Depreciation	152	186	186	446	529	706	706
Taxes	35	57	65	70	120	150	150
Total Costs	3,089	3,926	3,848	5,311	5,970	7,138	7,132
Net Sales	3,541	4,559	4,383**	6,538	7,229	8,696	8,696
Net Income	452	633	535	1,227	1,259	1,558	1,564
Net Income (as % of Capital plus Shareholders' Advances)	28	28	20	45	46	57	57
II. Source and Application of Funds							
Net Income before Interest	452	633	535	1,227	1,424	1,706	1,693
Depreciation Accruals	152	186	186	446	529	706	706
Share Capital	500	500	500	-	-	-	-
Shareholders' Advances	133	134	-	-	-	-	-
IRFIS Loan	126	-	-	-	-	-	-
IBRD Loan	300	1,400	1,200	200	-	-	-
Total Sources	1,663	2,853	2,421	1,873	1,953	2,412	2,399
Fixed Assets -							
New Project	930	2,200	2,200	400	-	-	-
Lime Plant	200	-	-	-	-	-	-
Net Current Assets	100	-	100	300	100	-	-
Service, IBRD Loan	-	60*	126*	165*	484	484	484
Service, Other Loans	163	209	75	75	75	75	75
"Additional Assets"	270	384	-80	933	1,294	1,853	1,840
Total Applications	1,663	2,853	2,421	1,873	1,953	2,412	2,399

	1955	1956	1957	1958	1959	1960	1961	1962
III. Balance Sheets (as of end of each fiscal year)								
Fixed Assets, all plants*	2,286	3,416	5,676	8,002	8,567	8,567	8,567	8,567
Less Depreciation	180	332	518	704	1,150	1,679	2,385	3,091
Net Fixed Assets	2,106	3,084	5,158	7,298	7,417	6,888	6,182	5,476
Net Current Assets	235	335	335	435	735	835	835	835
"Additional Assets"	-	270	654	574	1,507	2,801	4,654	6,494
Total Assets	2,341	3,689	6,147	8,307	9,659	10,524	11,671	12,805
Share Capital	400	900	1,400	1,900	1,900	1,900	1,900	1,900
Shareholders' Advances	564	697	831	831	831	831	831	831
Surplus	278	730	1,363	1,898	3,125	4,384	5,942	7,506
IBRD Loan	-	300	1,700	2,900	3,100	2,781	2,445	2,090
Other long-term loans	1,099	1,062	853	778	703	628	553	478
Total Liabilities	2,341	3,689	6,147	8,307	9,659	10,524	11,671	12,805

* Interest during construction capitalized.

** Beginning in 1958, it has been assumed that cement will be sold at the lower mainland price. Sicilian cement producers now receive a differential of Lit. 800 per ton, but there is reason to expect that this differential will be removed once Sicilian production becomes adequate to meet demand.

ANNEX 20

ASFALTI BITUMI CEMENTI e DERIVATI

26 June 1956

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

1818 G Street, N.Y.

WASHINGTON 25, D.C.

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), the Cassa per Opere Straordinarie di Pubblico Interesse nell' Italia Meridionale (the Cassa), Istituto Regionale per il Finanziamento alle Industrie in Sicilia (IRFIS) and Asfalti Bitumi Cementi e Derivati (the Company).

(2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the area of the Cassa's competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate at Ragusa a polyethylene plant with a capacity of 5,000 tons per year, a crude oil stripping plant of 700 tons daily capacity and a special cement plant with an annual capacity of 30,000 tons. We have informed you that the pro forma balance sheet of the Company, on completion of the project, would be as follows:

Fixed Assets	£.8,567,000,000	Share Capital	£.1,900,000,000
Less Depreciation	1,150,000,000	Surplus	3,125,000,000
Net Fixed Assets	7,417,000,000	Shareholders' Advances	831,000,000
Net Current Assets	735,000,000	IBRD Loan	3,100,000,000
Additional Assets	1,507,000,000	Other long term Loans	703,000,000
	£.9,659,000,000		£.9,659,000,000

It is understood that the amounts shown as surplus and additional assets may be reduced by the amounts of dividends paid during the interim period subject to the restrictions of this letter.

(4) The project cost for the new facilities to be erected should be considered as Lit.6,581,000,000, composed of Lit. 6,081,000,000, for additional fixed assets and Lit.500,000,000 for additional net current assets.

(5) We have informed that if the proposed loan should be made, it would been be made to the Company by IRFIS, to which the Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or IRFIS of the proposed loan you would require certain undertakings from the Company with respect to share capital, working capital and shareholders' advances.

(6) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Company will be outstanding, are that valid arrangements will be made, under which :

A. Except as the Bank, the Cassa and IRFIS shall otherwise agree, the share capital of the Company shall be at least Lit.1,900,000,000 paid in as required;

B. If the completion of the project or its successful operation is hindered or delayed or is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by IRFIS to provide the necessary funds as and when they are required;

C. Shareholders' advances already made and any new funds provided under subparagraph B in the form of shareholders' advances -

I. Shall not be withdrawn:

II. Shall in all respects be subordinated to all debts of the Company; and

III. Interest or any other remuneration shall be payable and paid thereon only out of net profits and only to the extent that dividends would be payable thereon if such shareholders' advances had originally been paid in as share capital ;

D. The undersigned will not, without approval of the Cassa and IRFIS, pay dividends or make any other payments to shareholders or adopt any policy if such payments or policy will result in or envisage at any time after completion of the project :

I. The excess of current assets over current liabilities being less than Lit. 700,000,000; or

II. The ratio of current assets to current liabilities being less than 2:1

(7) For the purpose of this letter "current assets" shall 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 Company's business be converted into cash or assets readily convertible into cash; and "current liabilities" shall 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 assurances and undertakings set forth in paragraph (6) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof IRFIS agrees to make a loan to the Company for the above-mentioned purpose in the approximate amount of L i t . 3,100,000,000.

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

Yours truly,

ASFALTI BITUMI CEMENTI e DERIVATI

L'Amministratore delegato

CEMENTERIE DI AUGUSTA

Financial Forecasts
(Million Lire)

	Operation Existing Plant, Construction of Extension		Operation Enlarged Plant		
	1956/57	1957/58	1958/59	1959/60	1960/61
I. Earnings Estimates					
Production (% of expanded normal capacity)	46	46	74	100	100
Operating Costs	716	716	917	1,332	1,331
Interest, IBRD Loan	(24)*	(46)*	50	46	42
Interest, Other Loans	38	40	33	30	27
Depreciation	190	190	330	330	330
Taxes	30	30	40	62	70
Total Costs	974	976	1,370	1,800	1,800
Net Sales	1,125	1,125	1,800	2,430	2,430
Net Income	151	149	430	630	630
Net Income (as % of Share Capital)	9.5	9.3	27	39	39
II. Source and Application of Funds					
Net Income before Interest	189	189	513	706	699
Depreciation Accruals	190	190	330	330	330
Share Capital	600	-	-	-	-
IBRD Loan	650	250	-	-	-
Total Sources	1,629	629	843	1,036	1,029
Fixed Assets	1,153	377	-	-	-
Net Current Assets	109	91	-	-	-
Service, IBRD Loan	24*	46*	118	118	118
Service, Other Debt	115	115	116	116	116
Repayment Current Liabilities	126	-	-	-	-
"Additional Assets"	102	-	609	802	795
Total Applications	1,629	629	843	1,036	1,029

	Estimated June 30 1956	1956/57	1957/58	1958/59	1959/60	1960/61
III. Balance Sheets (at end of fiscal years)						
Fixed Assets*	2,390	3,567	3,990	3,990	3,990	3,990
Depreciation	190	380	570	900	1,230	1,560
Net Fixed Assets	2,200	3,187	3,420	3,090	2,760	2,430
Net Current Assets	140	375	466	466	466	466
"Additional Assets"	8	110	110	719	1,521	2,316
Total Assets	2,348	3,672	3,996	4,275	4,747	5,212
Share Capital	1,000	1,600	1,600	1,600	1,600	1,600
Surplus	360	511	660	1,090	1,720	2,350
IBRD Loan	-	650	900	832	760	684
Other long-term debt	988	911	836	753	667	578
Total Liabilities	2,348	3,672	3,996	4,275	4,747	5,212

* Interest during construction capitalized

ANNEX 22

CEMENTERIE DI AUGUSTA

27 giugno 1956

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

1818 H Street, N.W.

WASHINGTON 25, D.C.

Gentlemen:

(1) This will confirm certain understandings which have been reached during during recent discussions between representatives of the International Bank for Reconstruction and Development (hereinafter referred to as the Bank), the Cassa per Opere Straordinarie di Pubblico Interesse nella Italia Meridionale (the Cassa), Istituto Regionale per il Finanziamento alle Industrie in Sicilia (IRFIS) and Cementerie Augusta (the Company).

(2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertaking in the area of the Cassa's competence.

(3) We have proposed that there should be financed out of the proceeds of loan our project to expand the Company's existing cement plant from a capacity of 130.000 tons per year to 300.000 tons per year. We have informed you that the pro forma balance sheet of the Company, on completion of the expansion projecct, would be as follows:

Fixed Assets	Lit.3.990.000.000	Share Capital	Lit. 1.600.000.000
Less Depreciation	" 570.000.000	Surplus	" 660.000.000
Net Fixed Assets	" 3.420.000.000	IBRD Loan	" 900.000.000
Net Current Assets	" 466.000.000	Other long term debt	836.000.000
"Additional Assets"	110.000.000		
	Lit.3.996.000.000		Lit. 3.996.000.000

It is understood that the amounts shown as surplus and additional assets may be reduced by the amount of dividends paid during the interim period subject to the restrictions of this letter.

(4) The cost of the expansion project should be considered as Lit. 1.600.000.000 for additional fixed assets, and Lit. 200.000.000 for additional current assets.

(5) We have been informed that if the proposed loan should be made, it would be made to the Company IRFIS, to which the Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or IRFIS of the proposed loan you would require certain undertakings from the Company with respect to share capital, working capital and shareholders' advances, if any.

(6) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Company will be outstanding, are that valid arrangements will be made, under which:

A. Except as the Bank, the Cassa and IRFIS shall otherwise agree, the share capital of the Company shall be at least Lit.1.600.000.000 paid in as required;

B. If the completion of the project or its succesful operation is hindered or delayed of is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by IRFIS to provide the necessary funds as and when they are required;

C. Shareholders' advances provided under subparagraph B:

I. Shall not be withdrawn;

II. Shall in all respects be subordinated to all debts of the Company; and

III. Interest or any other remuneration shall be payable and paid thereon only out net profits and only to the extent that dividends would be payable thereon if such shareholders' advances had originally been paid in share capital;

D. The undersigned will not, without approval of the Cassa and IRFIS, pay dividends or make any other payment to sharehilders or adopt any policy if such payments or policy will result in or envisage at any time after the end of the first 12 months of operation of the enlarged plant:

I. The excess of current assets over current liabilities being less than Lit 400.000.000; or

II. The ratio of current assets to current liabilities being less than 2/: 1.

(7) For the purpose of this letter "current assets" shall be considered as cash and assets readily convertible to cash and all other assets which would; within ore year in the ordinary course of the Company's business be converted into cash or assets readily convertible into cash; and "current liabilities" shall 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 assurances and undertakings set forth in paragraph (6) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof IRFIS agrees to make a loan to the Company for the above-mentioned purpose in the approximate amount of Lit. 900.000.000.

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

Yours truly,

CEMENTERIE DI AUGUSTA S.p.A.

Un Amministratore con Delega di
Poteri

CEMENTERIE DI SARDEGNA

Financial Forecasts
(Million Lire)

	Operation Cagliari Plant construction Sassari Plant		Operation Two Plants		
	1956	1957	1958	1959	1960
I. Earnings Estimates					
Production (% of normal capacity of the two plants)	73	73	96	97	100
Operating Costs	2,080	2,080	2,664	2,694	2,755
Interest, IBRD Loan	(30)*	(60)*	82	76	70
Depreciation	210	210	351	351	351
Taxes	120	120	123	123	123
Total Costs	2,410	2,410	3,220	3,244	3,299
Net Sales	2,650	2,650	3,515	3,564	3,662
Net Income	240	240	295	320	363
Net Income (% of Capital plus Shareholders' Advances)	16	12	15	16	18
II. Source and Application of Funds					
Net Income before Interest	240	240	377	396	433
Depreciation Accruals	210	210	351	351	351
Shareholders' Advances	500	500	-	-	-
IBRD Loan	750	750	-	-	-
Total Sources	1,700	1,700	728	747	784
Fixed Assets (Sassari	1,200	1,159	-	-	-
Fixed Assets (Cagliari	100	100	100	100	100
Net Current Assets	-	40	191	-	-
Service, IBRD Loan	30*	60*	197	197	197
"Additional Assets"	370	341	240	450	487
Total Applications	1,700	1,700	728	747	784

	1956	1957	1958	1959	1960
III. Balance Sheets (as of end of each calendar year)					
Fixed Assets*	3,655	4,974	5,074	5,174	5,274
Less Depreciation	1,710	1,920	2,271	2,622	2,973
Net Fixed Assets	1,945	3,054	2,803	2,552	2,301
Net Current Assets	180	220	411	411	411
"Additional Assets"	600	941	1,181	1,631	2,118
Total Assets	2,725	4,215	4,395	4,594	4,830
Share Capital	1,000	1,000	2,000	2,000	2,000
Shareholders' Advances	500	1,000	-	-	-
Surplus	475	715	1,010	1,330	1,693
IBRD Loan	750	1,500	1,385	1,264	1,137
Total Liabilities	2,725	4,215	4,395	4,594	4,830

*Interest during construction capitalized

CEMENTERIE DI SARDEGNA

Bergamo 25 giugno 1956

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

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), the Cassa per Opere Straordinarie di Pubblico Interesse nell' Italia Meridionale (the Cassa), Credito Industriale Sardo (CIS) and Cementerie di Sardegna (the Company).

(2) You have informed us that the Bank is considering a loan to the Cassa and that part of that loan will be specifically allocated for loans for various industrial undertakings in the area of the Cassa's competence.

(3) We have proposed that there should be financed out of the proceeds of the loan our project to construct and operate near Sassari a cement plant with a normal capacity of 100,000 tons per year. We have informed you that the pro forma balance sheet of the Company, on completion of the project, would be as follows:

Net Fixed Assets	Lit. 3,054,000,000	Capital	Lit. 1,000,000,000
Net Current Assets	220,000,000	Surplus	715,000,000
Additional Assets	941,000,000	Shareholders' Advances	1,000,000,000
		IBRD Loan	1,500,000,000
	Lit. 4,215,000,000		Lit. 4,215,000,000

It is understood that the amounts shown as surplus and additional assets may be reduced by the amount of dividends paid during the interim period subject to the restrictions of this letter. We have informed you that during the first 12 months of operation of the Sassari plant we may convert the shareholders' advances into share capital through an increase in the authorized capital of the Company.

(4) The cost of the new facilities to be erected near Sassari should be considered as Lit. 2,680,000,000 composed of Lit. 2,449,000,000 for fixed assets and Lit. 231,000,000 for net current assets.

(5) We have been informed that if the proposed loan should be made, it would be made to the Company by CIS, to which the Cassa would lend a portion of the Bank's loan for the purpose. You have said that before you could approve favorable consideration by the Cassa or CIS of the proposed loan you would require certain undertakings from the Company with respect to share capital, working capital and shareholders' advances.

(6) The assurances and undertakings which you have requested, to be effective while any part of the loan to the Company will be outstanding, are that valid arrangements will be made, under which:

A. Except as the Bank, the Cassa and CIS shall otherwise agree, shareholders' advances or additional share capital, of at least Lit. 1,000,000,000 shall be paid in as required, but not later than the completion of the project;

B. If the completion of the project or its successful operation is hindered or delayed or is threatened with hindrance or delay because the funds available are inadequate to ensure its completion and the provision of the necessary working capital, prompt arrangements shall be made in accordance with a financial plan approved by CIS to provide the necessary funds as and when they are required:

C. Shareholders' advances provided under subparagraphs A or B:

I. Shall not be withdrawn;

II. Shall in all respects be subordinated to all debts of the Company; and

III. Interest or any other remuneration shall be payable and paid thereon only out of net profits and only to the extent that dividends would be payable thereon if such shareholders' advances had originally been paid in as share capital;

D. The undersigned will not, without the approval of the Cassa and CIS, pay dividends or make other payments to shareholders or adopt any policy if such payments or policy will result in or envisage at any time after the end of the first 12 months of operations of the Sassari plant:

I. The excess of current assets over current liabilities being less than Lit. 400,000,000; or

II. The ratio of current assets to current liabilities being less than 2:1.

(7) For the purpose of this letter "current assets" shall 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 Company's business be converted into cash or assets readily convertible into cash; and that "current liabilities" shall 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 assurances and undertakings set forth in paragraph (6) above to be effective on the condition that you make a loan to the Cassa and that from the proceeds thereof CIS agrees to make a loan to the Company for the above-mentioned purpose in the approximate amount of Lit. 1,500,000,000.

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

Yours truly,

CEMENTERIE di SARDEGNA

Societa per Azioni

Il Consigliere Delegato - Direttore Generale

INVESTMENTS IN THE FLUMENDOSA PROJECT
(Billion Lire)

	Public Works	Private Works	Total
Government contribution	48.9	12.0	60.9
Private contribution	4.2	16.5	20.7
	53.1	28.5	81.6

ESTIMATED PRIVATE INVESTMENTS REQUIRED TO PREPARE DRY FARMING LAND FOR IRRIGATED FARMING

	Per Hectare ('000 Lire)	
	Mixed Farming	Citrus Groves
Nature of Investment		
Land improvement	290	290
Buildings	180 1/	80 2/
Plantings of trees	-	360
Farm requisites	150	100
Working capital	30	75
Total	650	905
Sources of Finances		
Government grant 38% of the first two items	180	140
Private contribution	470	765
Total	650	905
Breakdown of Private Contributions		
Contribution in labor 25% of the total of the first 3 items	120	180
Private money investment	350	585
Total	470	765

1/ Lit. 300,000 on 3/5 of the total area.
2/ Buildings are less expensive in citrus groves than for mixed farming.

CHANGE IN FARM COSTS AS A RESULT OF THE PROJECT
(Lire per hectare)

		Before	After
1.	Gross production for mixed farming	48,000	250,000
2.	Costs of requisites:		
	fertilizer	2,700	15,000
	pesticides	10	1,500
	feeds	110	5,000
	seeds	650	2,000
	costs of machines	5,030	15,000
	dues to Consorzio	-	24,000
	miscellaneous	300	2,000
		8,800	64,500
3.	Costs of buildings 1/	2,200	5,500
4.	Total (2 + 3)	11,000	70,000
5.	Net product (1 - 4)	37,000	180,000
	to labor 2/	25,000	109,000
	to capital 3/	5,000	20,000
	to taxes 4/	3,000	15,000
6.	Profit	4,000	36,000

1/ Amortization, maintenance, insurance.
2/ On the basis of an increase of man-days per hectare from 25 to 109.
3/ 6% on total private money investment of Lit. 350,000; includes interest on Government loan.
4/ 6% of gross production.

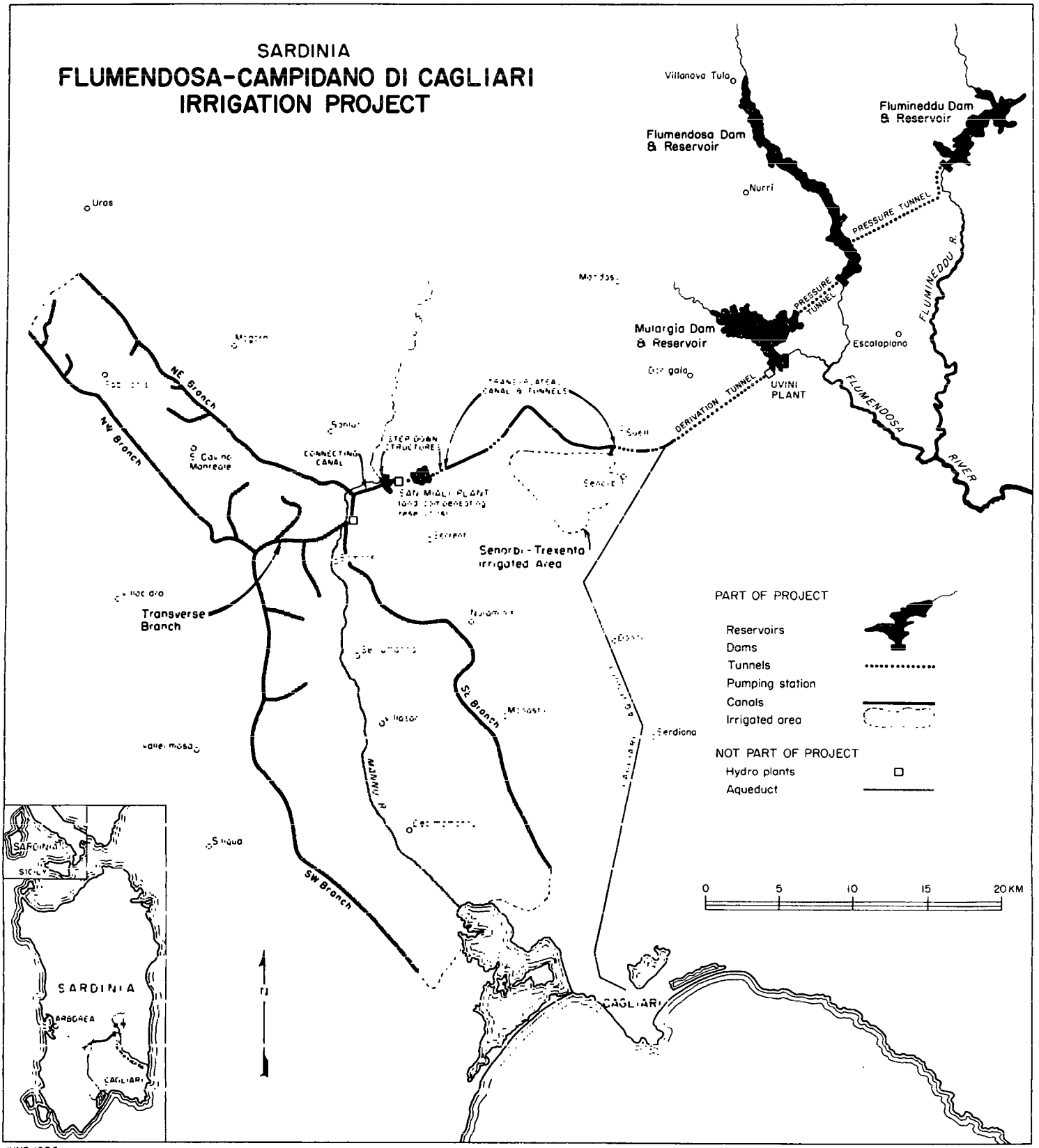
INCREASE IN GROSS VALUE OF PRODUCTION

	Quantities (m. tons)			Price per Ton	Value
	Before	After	Increase	('000 Lire)	(Million Lire)
Pulses	6,750	6,000	-750	55	-41
Wheat	14,850	26,450	11,600	75	870
Oats	1,500	-	-1,500	45	-68
Grapes	8,000	12,000	4,000	38	152
Almonds	1,000	1,500	500	80	4
Citrus	9,000	108,000	99,000	45	4,500
Sugar Beets	-	100,000	100,000	8.5	850
Tobacco	-	1,800	1,800	170	305
Tomatoes	-	75,000	75,000	13	980
Vegetables	-	90,000	90,000	20	1,800
					9,352

VALUE OF ADDITIONAL EXPORTS

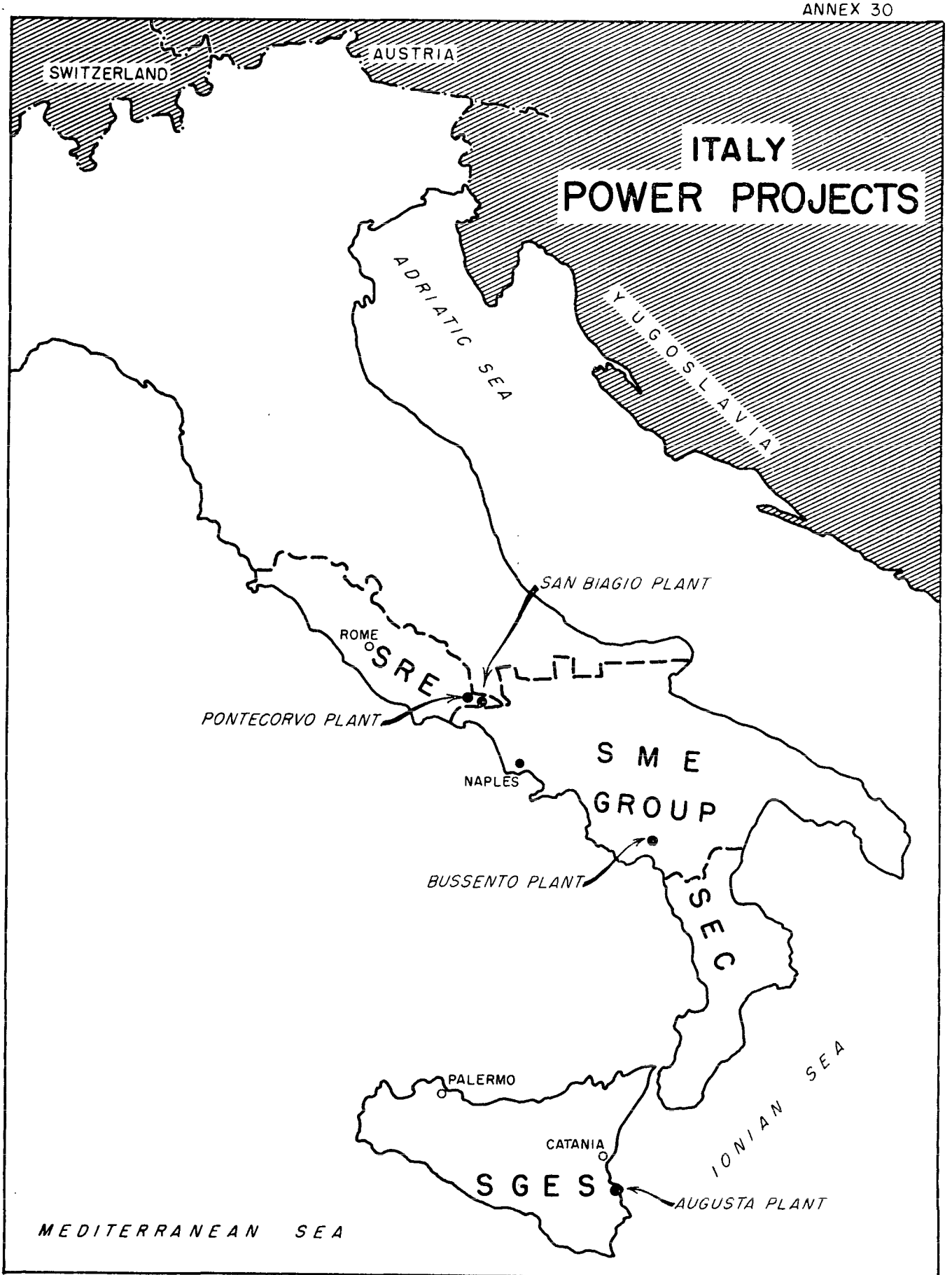
(on the assumption that one-third of the increase in production will be exported)

	Quantity ('000 tons)	Export Price ('000 Lire/ton)	Value (Million Lire)
Tomatoes	25	50	1,250
Vegetables	30	35	1,050
Citrus	33	70	2,310
			4,610



JUNE 1956

IBRD-266



JUNE 1956

IBRD-275

SOCIETA ROMANA DI ELETTRICITA AND SIAL
Consolidated Balance Sheet as of December 1955
(in millions of Lire)

Assets

Fixed Assets	85,671	
Less: Depreciation	36,637	
Net Bookvalue		49,034
Construction in Progress (including advance payments)		673
Investments in affiliated companies		4,229
Advances to affiliated companies		2,228
Current Assets:		
a) Cash and Banks	243	
b) Accounts Receivable -- for sale of energy	1,222	
c) Stores	1,877	
d) Others	1,158	
		4,500
Miscellaneous		2,409
		63,073

Capital, Reserves and Liabilities

Share Capital (paid in)	26,200
Reserves	2,998
Capital Surplus (balance Revaluation of Assets)	7,230
Equity	36,428
Long Term Debts	13,056
Current and Accrued Liabilities	3,787
Bank Credits	2,000
Reserve for Social Security, etc.	2,899
Miscellaneous	2,559
Profit and Loss Account (Balance)	2,344
	63,073

CONDENSED INCOME STATEMENTS FOR THE YEARS 1951-1955
Consolidated Figures Societa Romana di Elettricita (SRE) and Societa Idroelettrica di Alto Liri (SIAL)
(in millions of Lire)

	1951	1952	1953	1954	1955
Sale of Energy	8,756	10,128	11,785	14,073	14,999
Contributions Equalization Funds	—	164	1	321	478
Other Income	161	352	401	811	716
Gross Revenues	8,917	10,644	12,187	15,205	16,193
Cost of Operations					
Operation and maintenance (including fuel, cost of purchased power, general and administrative expenses)	5,424	5,778	6,640	8,253	8,388
Depreciation	1,650	2,551	2,952	3,093	3,325
Taxes	369	367	385	855	1,197
Total	7,443	8,696	9,977	12,201	12,910
Net Income from Operations	1,474	1,948	2,210	3,004	3,283
Less: Interest	402	460	644	783	1,035
Net Profit	1,072	1,488	1,566	2,221	2,248

OPERATING STATISTICS OF SRE-SIAL FROM 1950 THROUGH 1955

Peak loads - Generation (hydro & thermal) - Purchases - Own uses & losses

Year	Peak load MW	Generation 1/ Hydro GWh	Generation 1/ Thermal GWh	Purchases GWh	Total Supplied to network GWh	Losses GWh	Losses %	Sales GWh	Load Factor
1950	170	590	56	127	773	154	19.8%	619	0.52
1951	184	817	7.5	46	870	169	19.4%	701	0.54
1952	199	614	56	275	945	172	18.2%	773	0.54
1953	220	661	52	323	1,036	186	18 %	850	0.54
1954	241	634	150	350	1,134	218	19.2%	916	0.54
1955	282	704	134	362	1,200	204	17 %	996	0.49

1/ including energy from plants in common ownership

SOCIETA ROMANA DI ELETTRICITA & SIAL

SALES 1953-1955 AND FORECASTS 1956-1963 (GWh)

Categories of consumers	1953	1954	1955	Average annual increase	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Average annual increase
Public light	10.4	11.5	12	7.5%	14	15	16	17	18	19	20	21	22	23	7%
Private light	156.2	170.2	185	8.7%	192	205	218	231	251	272	297	314	331	351	7%
Domestic uses 1/	102.9	118.6	134	14%	146	169	189	210	234	260	286	307	327	347	10%
Industrial uses below 30 kw	119.2	132.1	147	11.2%	150	165	175	190	205	222	240	250	290	324	8.5%
" " above 30 kw	363.8	384.8	414	6.8%	438	465	491	521	549	582	610	657	704	756	6.5%
Electro chemical	22.2	23.6	25	6%	27	30	32	34	36	38	40	43	46	49	7%
Traction	68.8	69.8	72	1.8%	72	73	74	75	76	77	78	79	80	81	1.5%
Retailers	6.6	5.8	7	3%	5.7	5.2	5.5	5	5.6	5.4	5.2	5.2	5.3	5	- 3.5%
TOTAL	850.1	916.4	996	8.2%	1,044.7	1,127.2	1,200.5	1,283	1,374.6	1,475.4	1,576.2	1,686.2	1,805.3	1,936	7%

1/ Cooking, heating, etc.

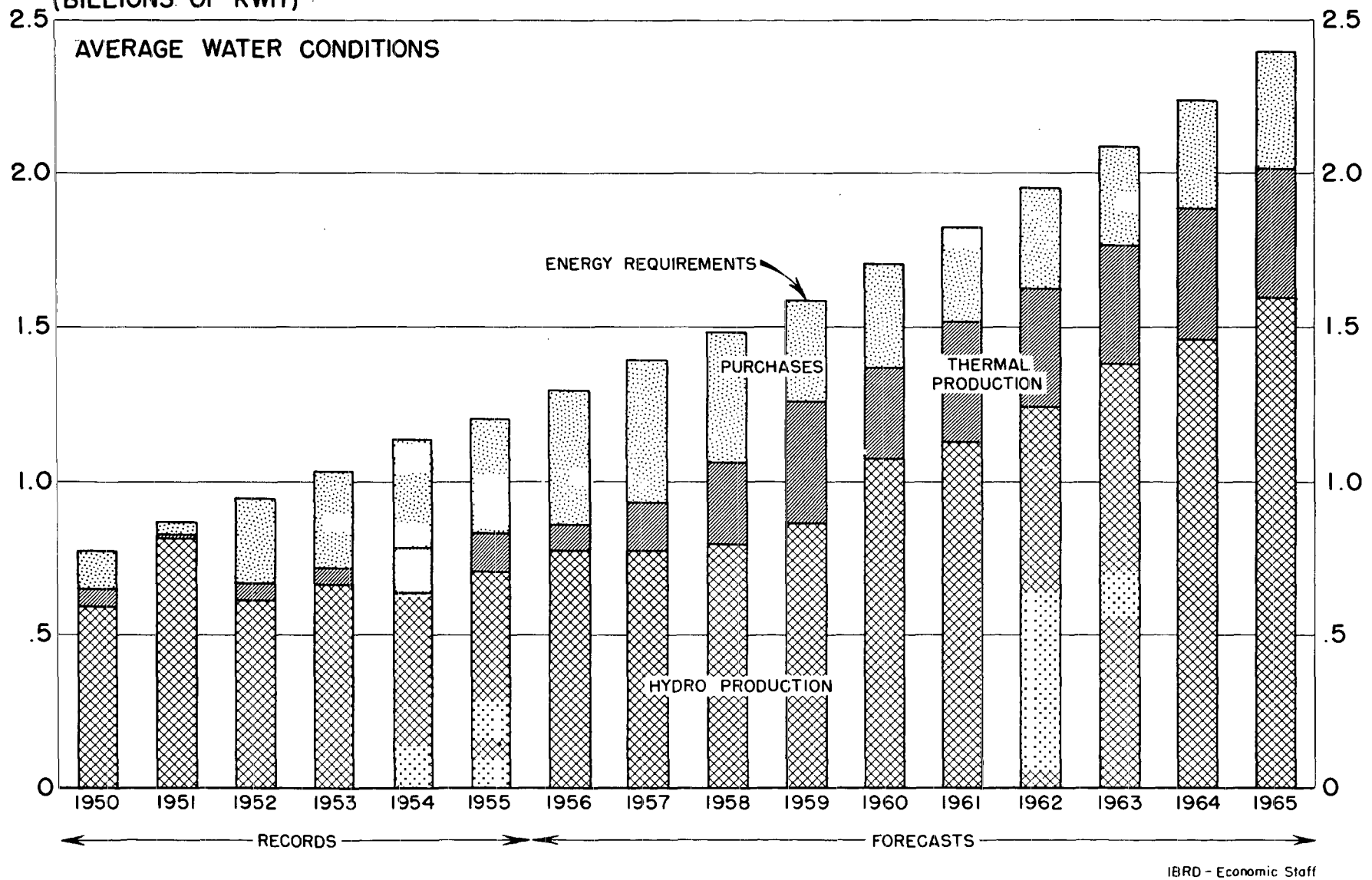
SOCIETÁ ROMANA DI ELETTRICITÁ & SIAL

10-Year Investment Program 1956-1965
(in million Lire)

Hydro Projects considered by IBRD	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
S. Biagio	120	350	1,100	1,250	200	-	-	-	-	-	-	3,020
Pontecorvo	40	370	1,400	1,800	1,600	300	-	-	-	-	-	5,510
Total IBRD Projects	160	720	2,500	3,050	1,800	300						8,530
Other Hydro Projects	25	290	2,500	4,700	5,055	8,300	8,300	4,700	1,500	-	-	35,370
Thermal	800	2,000	2,200	900	700	600	590	590	313	-	-	8,693
Transmission & Substations	60	2,450	2,210	2,990	3,260	1,670	1,950	1,800	1,800	1,800	1,800	21,790
Distribution	-	2,270	2,300	2,400	2,800	2,800	3,000	3,000	3,000	3,000	3,000	27,570
Total Other Projects	885	7,010	9,210	10,990	11,815	13,370	13,840	10,090	6,613	4,800	4,800	93,423
TOTAL INVESTMENT	1,045	7,730	11,710	14,040	13,615	13,670	13,840	10,090	6,613	4,800	4,800	101,953

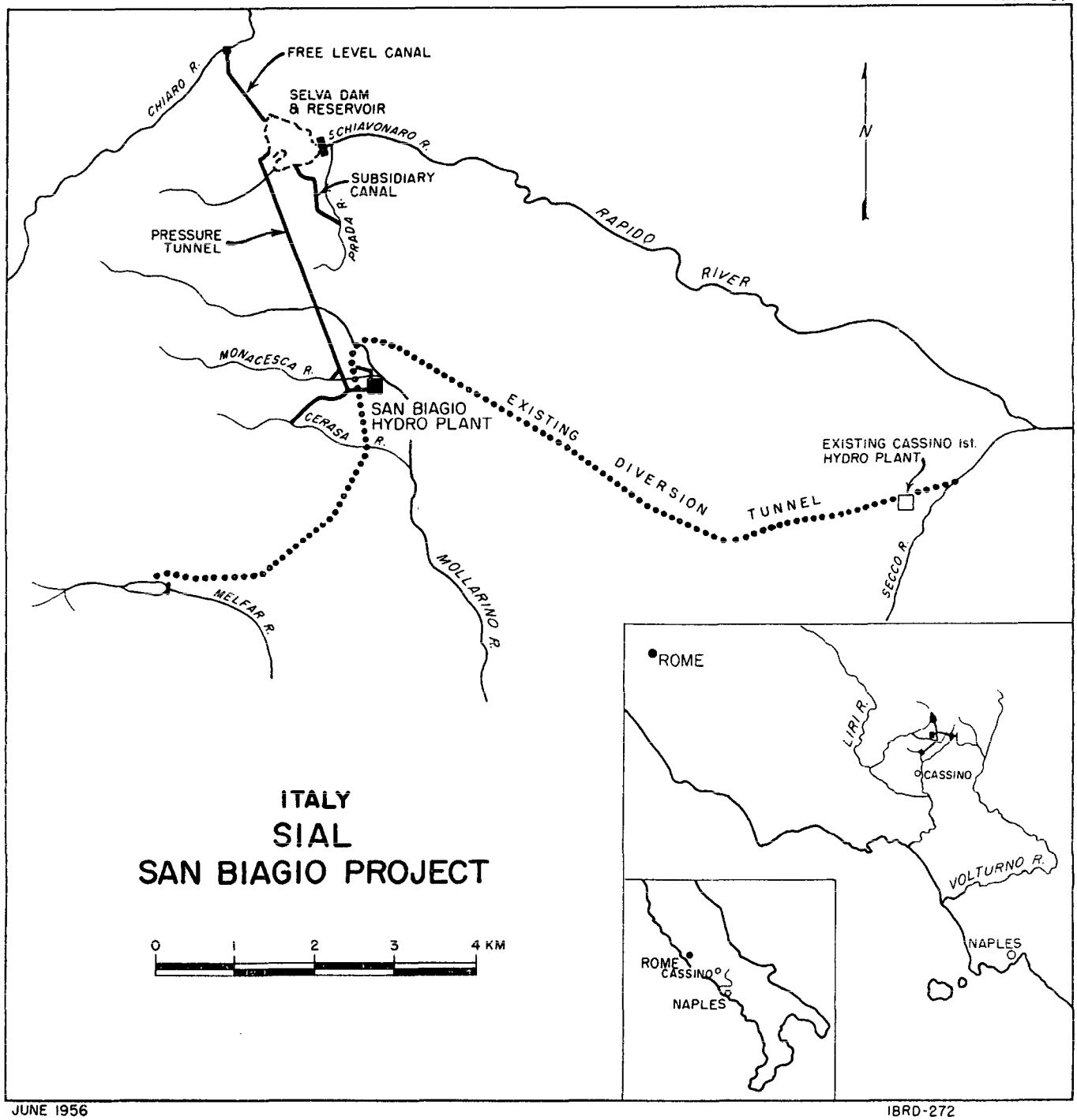
ITALY: SRE - SIAL
AVAILABLE ENERGY, 1950 - 1965

(BILLIONS OF KWH)



IBRD - Economic Staff

1173



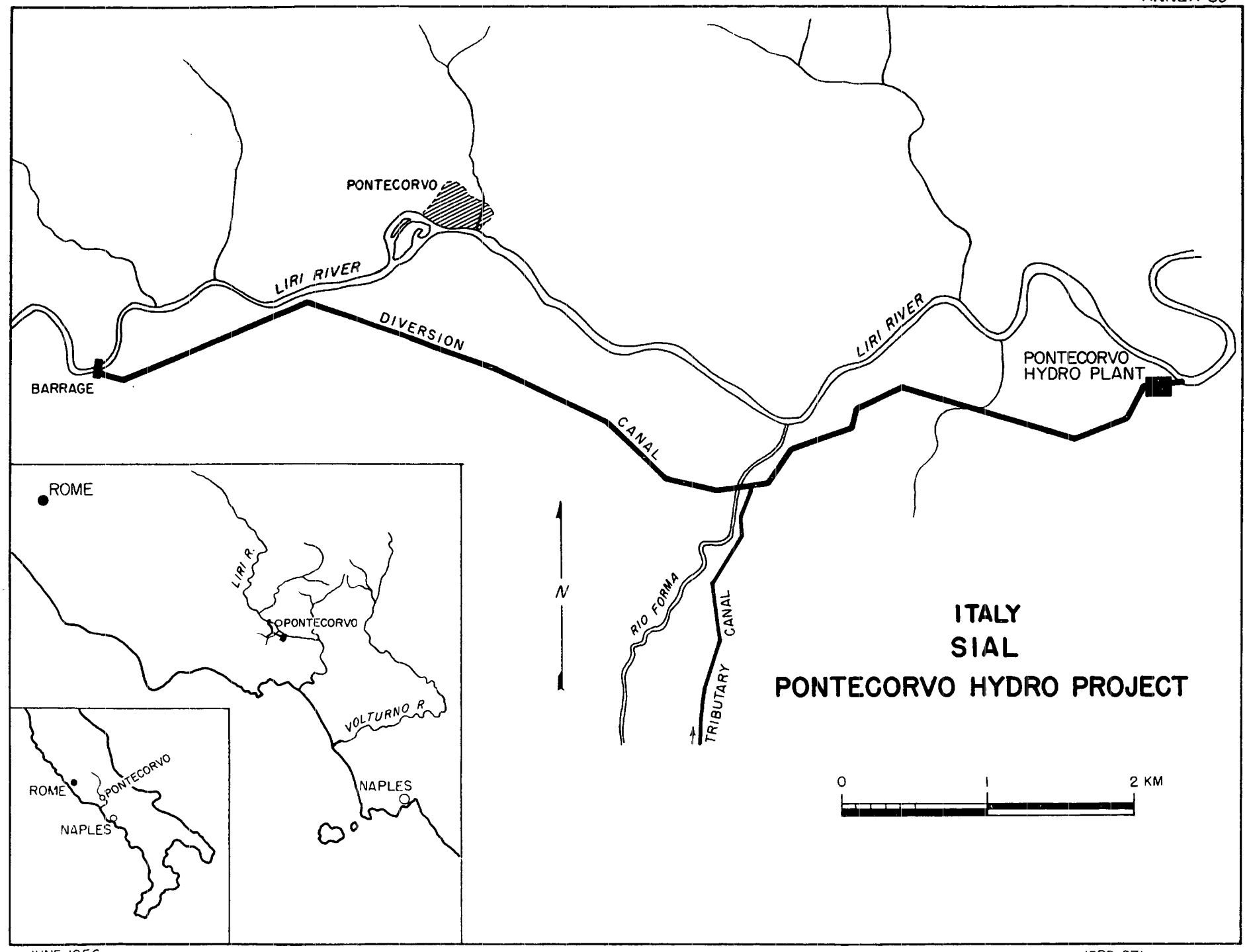
JUNE 1956

IBRD-272

SAN BIAGIO PROJECT (EXTENSION OF CASSINO)
SIAL COMPANY

Construction Cost Estimate

	Million Lire
Selva Dam	1,191
Rio Chiaro Diversion	170
Rio Prada "	50
Pressure Tunnel	535
Monacesca Diversion	27.5
Cerasa	25.5
Surge Tank	36.5
Penstock	65
Plant	239.5
Connecting Line	15
Sub-Total	2,355
Engineering, Supervision and Overhead	350
Contingencies	120
Interest during construction	195
TOTAL CONSTRUCTION COSTS	Lire 3,020 million
	($4.83 million equivalent)



JUNE 1956

IBRD-271

ALTO LIRI - ROMANA COMPANY

Pontecorvo Hydro Plant

Construction Cost Estimate

	Million Lire
Barrage and intake	1,100
Main Diversion canal	1,365
Quesa Diversion canal	185
Forebay	380
Penstock	86
Powerhouse	1,111
Sub-Total	4,227
Engineering, supervision and overhead	532
Contingencies	211
Interest during construction	540
TOTAL CONSTRUCTION COSTS	5,510

($8.81 million equivalent)

SOCIETÁ ROMANA DI ELETTRICITÁ AND SIAL
Pro Forma Consolidated Balance Sheet as of December 31, 1960
(in millions of Lire)

Assets

Fixed Assets	136,533	
Less: Reserve for Depreciation	56,054	
Net Bookvalue		80,479
Construction Work in Progress		7,526
Investments in affiliated companies		4,229
Advances to affiliated companies		2,228
Current Assets		4,500
Miscellaneous		3,876
		102,838

Capital, Reserves and Liabilities

Share Capital		40,000
Surplus and Reserves		10,114
Capital Surplus (balance Revaluation of Assets)		3,134
Equity		53,248
Long Term Debts:		
Proposed IBRD loan (balance)	4,924	
Other	23,912	28,836
Floating Debts		8,329
Total Debt		37,165
Current and Accrued Liabilities		3,787
Reserve for Social Security, etc.		2,899
Miscellaneous		2,559
Profit and Loss Account (Balance)		3,200
		102,838

ROMANA AND S.I.A.L.
Estimated Consolidated Income Statements and Forecast of Receipts and Expenditures
(in millions of Lire)

	1956	1957	1958	1959	1960
Gross Revenues	18,055	20,603	25,612	29,354	33,639
Operation and Maintenance (including fuel, cost of purchased power, administrative expenses)	9,818	11,690	13,982	15,388	17,713
Taxes	1,227	1,427	1,630	2,160	2,300
Depreciation 1/	3,100	3,238	3,693	4,606	4,780
Total Cost of Operations	14,145	16,355	19,305	22,154	24,793
Net income from Operations	3,910	4,248	6,307	7,200	8,846
Less: Interest	1,023	1,249	1,551	2,200	2,436
Net Profit	2,887	2,999	4,756	5,000	6,410
RECEIPTS					
Net Profit	2,887	2,999	4,756	5,000	6,410
Depreciation allowances	3,100	3,238	3,693	4,606	4,780
Receipts from Operations	5,987	6,237	8,449	9,606	11,190
Proposed Sale of Capital Stock	3,704		3,000		3,000
Proposed Borrowing:					
a) IBRD loan withdrawals	528	1,500	1,830	1,080	
b) I.M.I. (existing loan)	916	430	431		
c) Other long term borrowing		4,000	4,000	3,000	3,000
Increase in floating debt	234	2,564	184	3,106	241
Other Receipts		650	180	1,053	1,150
Total Receipts	11,369	15,381	18,074	17,845	18,767
EXPENDITURES					
Construction:					
a) Proposed IBRD Projects	720	2,500	3,050	1,800	300
b) Other Construction	7,010	9,210	10,990	11,815	13,370
	7,730	11,710	14,040	13,615	13,670
Amortization of debt:					
a) Proposed IBRD loan					200
b) Other debt	467	754	992	1,183	1,525
Dividend Payments	2,560	2,560	2,880	2,880	3,200
Other Expenditures	612	357	162	167	172
Total Expenditures	11,369	15,381	18,074	17,845	18,767

1/ The figures for depreciation shown in this table have been calculated on a straight-line basis assuming an average rate of 3½% per year on total investment in plant in service. This average rate is considered more than adequate. In actual practice the company is expected to charge higher rates for depreciation by taking advantage of those higher rates as allowed by the taxation laws.

SOCIETA GENERALE ELETTRICA DELLA SICILIA (S.G.E.S.)
Balance Sheet as of December 31, 1955 1/
(in millions of Lire)

Assets

Fixed Assets		59,170
Less: Reserve for Depreciation		20,033
Net Bookvalue		39,137
Construction Work in Progress (including advance payments and construction stores)		3,372
Investments in Subsidiaries and affiliated companies		2,427
Advances to Subsidiaries and affiliated companies		1,915
Current Assets:		
Cash and Banks	328	
Accounts Receivable -- for sale of electricity	1,807	
Inventories	3,243	5,378
Other Receivables and Prepaid items		2,510
Miscellaneous		1,546
		56,285

Capital, Reserves, and Liabilities

Share Capital	12,500
General Reserve	486
Capital Surplus from Revaluation of Assets	19,811
Equity	32,797
Long Term Debts	10,227
Current Liabilities	2,303
Bank Debts	3,123
Reserve for Social Security, etc.	2,226
Miscellaneous (various provisions, etc.)	4,679
Profit and Loss Account (balance)	930
	56,285

1/ provisional figures

SOCIETÁ GENERALE ELETTRICA DELLA SICILIA (S.G.E.S.)
(in millions of Lire)

PAST EARNINGS RECORD

	1951	1952	1953	1954	1955 1/
Revenues from Sale of Electricity	6,441.4	7,665.1	8,441.6	10,082.4	10,999.2
Contributions from Equalization Fund	3,553.4	2,890.-	2,588.9	1,376.7	574.-
Gross Revenues Sale of Electricity	9,994.8	10,555.1	11,030.5	11,459.1	11,573.2
Other Income	303.6	290.6	469.9	394.5	925.3
Total Income	10,298.4	10,845.7	11,500.4	11,853.6	12,498.5
Cost of Operations:					
Operating expenses (including cost of fuel, maintenance, general and administrative expenses, cost of purchased power)	8,114.3	8,074.9	8,483.4	8,287.4	8,618.7
Depreciation	900.-	1,220.-	1,430.-	1,540.-	1,670.-
Taxes	393.9	418.1	423.2	536.-	668.9
Total Cost of Operations	9,408.2	9,713.-	10,336.6	10,363.4	10,957.6
Net from Operations	886.2	1,132.7	1,163.8	1,490.2	1,540.9
Less: interest (net)	306.2	562.8	592.4	583.9	610.4
Net Profit	580.-	569.9	571.4	906.3	930.5

1/ Provisional figures

GENERATION RECORDS OF SGES - TIFEO FROM 1950 THROUGH 1955

Year	Peak Load MW	Generation Hydro GWh	Generation Thermal GWh	Purchased GWh	Total Supplied to Network GWh	Losses GWh	Losses %	Sales GWh	Load Factor of Network
1950	81	109	279	2	390	78	20.0	312	0.55
1951	93	124	306	6	436	93	21.4	343	0.53
1952	93	119	376	10	505	104	20.6	401	0.49
1953	118	104	333	133	570	123	21.6	447	0.55
1954	137	120	223	326	669	134	20.0	535	0.56
1955	160	112	215	413	740	144	19.4	596	0.53

SOCIETÁ GENERALE ELETTRICÁ DELLA SICILIA AND TIFEO

Past Sales 1953 - 1955 and Forecasts 1956 - 1965 (in Gwh)

Categories of Consumers	1953	1954	1955	Average Annual Increase	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Average Annual Increase
Public light	21	23	25	9 %	27	29	31	32	35	37	40	43	47	50	7.5
Private light	94	109	120	16 %	130	141	150	159	169	181	197	214	231	250	7.8
Domestic uses 1/	15	17	20	16 %	26	31	38	45	55	67	82	101	122	150	21.5
Industrial uses	211	258	290	17 %	322	359	394	431	474	528	484	648	720	800	10.8
Agriculture	19	25	26	17 %	29	32	34	37	40	43	47	51	55	60	8.5
Traction	32	41	48	22 %	19	20	20	20	21	22	22	23	24	25	3
Re-sales	55	62	67	10 %	72	78	83	88	93	100	108	116	126	135	7.2
TOTAL	447.1	535	596	15 %	625	690	750	812	887	978	1080	1196	1325	1470	10 %

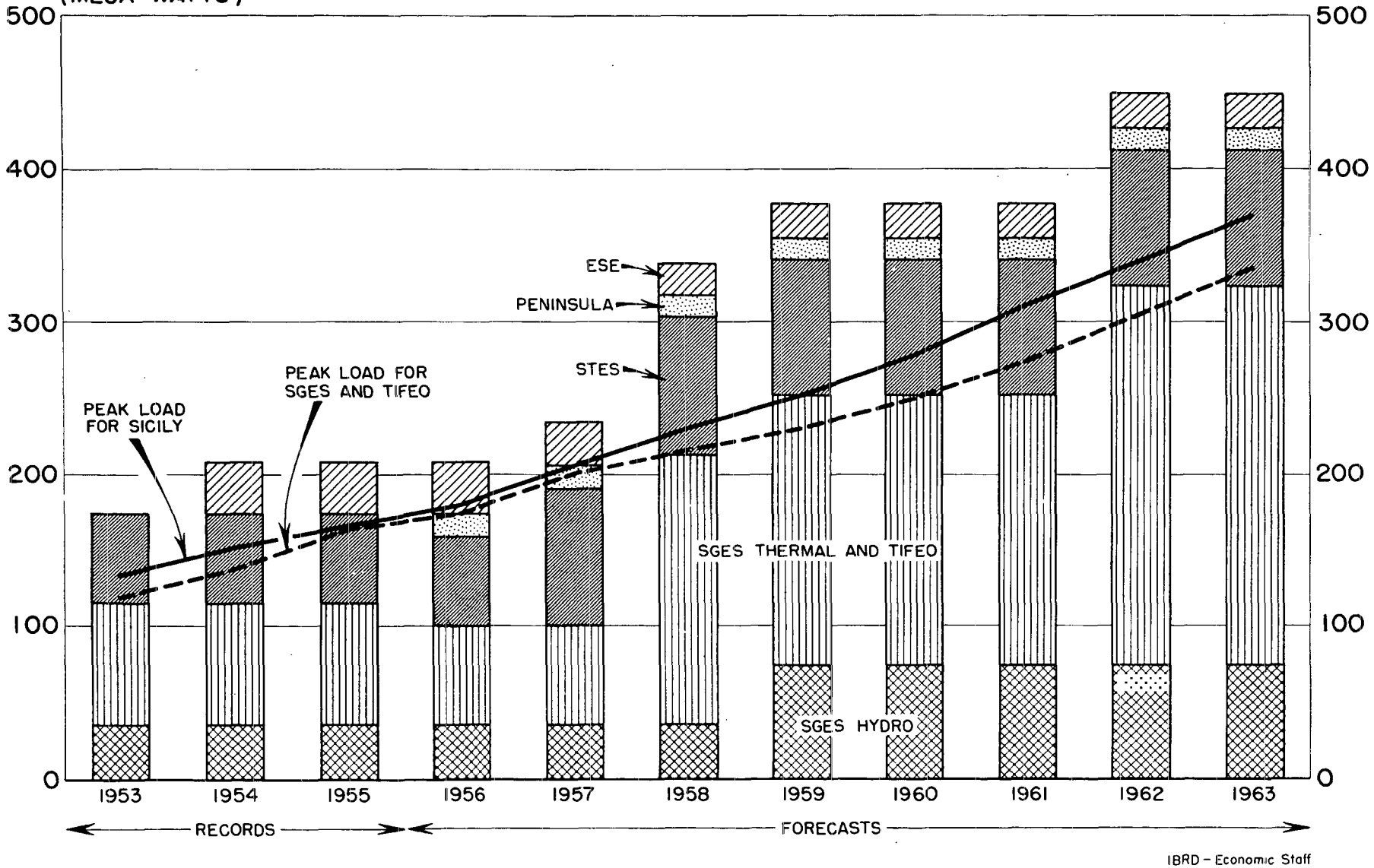
1/ Cooking, heating, etc.

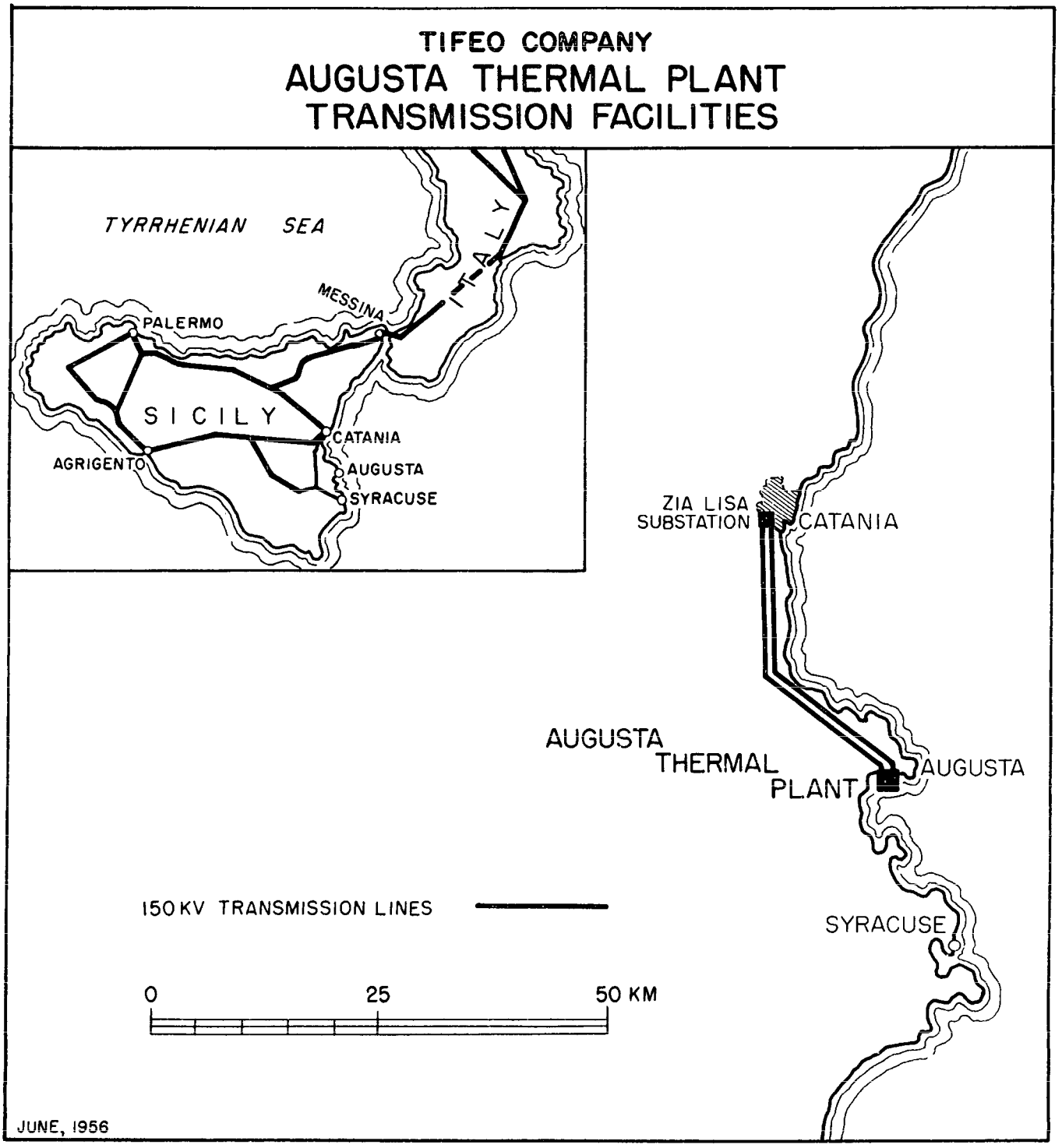
SCES/TIFRO

NINE YEAR INVESTMENT PROGRAM 1956 - 1964
(in million Lire)

	1956	1957	1958	1959	1960	1961	1962	1963	1964	Total
Project Considered by IBRD										
Augusta Thermal Plant	3,732	3,512	2,686	-	-	-	-	-	-	9,930
Augusta-Catania Line	325	645	-	-	-	-	-	-	-	970
	4,057	4,157	2,686	-	-	-	-	-	-	10,900
Other Projects										
Hydro	1,800	1,800	-	-	-	-	-	-	-	3,600
Thermal	-	-	-	1,000	4,000	4,000	2,000	-	-	11,000
Transmission Lines	125	-	805	1,000	-	-	800	900	900	5,175
Substations	700	700	1,800	1,800	1,000	1,000	1,200	1,200	1,200	10,000
Distribution	3,000	3,000	4,000	5,000	3,000	3,000	4,000	5,000	5,000	35,000
Total - Other Projects	5,625	5,500	6,305	8,500	8,000	8,000	8,000	7,100	7,100	64,775
Total Investment	9,682	9,657	8,991	8,500	8,000	8,000	8,000	7,100	7,100	75,030

ITALY: SGES AND ALL OF SICILY
AVAILABLE CAPACITY AND PEAK LOAD, 1953-1963




TIFEO COMPANY
AUGUSTA THERMAL PLANT
TRANSMISSION FACILITIES
TYRRHENIAN SEA
ITALY
MESSINA
PALERMO
SICILY
CATANIA
AGRIGENTO
AUGUSTA
SYRACUSE
ZIA LISA
SUBSTATION
CATANIA
AUGUSTA
THERMAL
PLANT
AUGUSTA
SYRACUSE
150 KV TRANSMISSION LINES
0
25
50 KM
JUNE, 1956
IBRD-270

TIFEO/SGES

CONSTRUCTION COST ESTIMATES

Augusta Thermal Plant
(2 x 70 MW)

	Million Lire
Land Purchase	120
Building and Civil Works	1,200
Boilers	1,650
Turbines and Governors	950
Generators	577
Condensers	600
Ventilators and Vents	100
Heat Cycle Accessories	650
Electric Accessories	1,400
Auxiliary units	670
Fuel reservoirs	200
Miscellaneous	400
Sub-Total	8,517
Engineering, Supervision and Overhead (3%)	256
Contingencies (4.6%)	392
Interest during construction	765
TOTAL	9,930

Transmission Facilities

Towers	140
Conductors	160
Insulators and hardware	65
Erection	140
Synchronous condensers and accessories	270
Sub-Total	775
Engineering and overhead (7.7%)	60
Contingencies (8.4%)	65
Interest during construction	70
TOTAL	970

PRO FORMA CONSOLIDATED BALANCE SHEET FOR S.G.E.S. AND TIFEO

as of December 31, 1958
(in millions of Lire)

Assets

Fixed Assets	89,923	
Less: Reserve for Depreciation	25,781	
Net Book Value	64,142	
Investments in Subsidiaries and affiliated companies	2,427	1/
Advances to Subsidiaries and affiliated companies	1,109	
Net Current Assets	3,075	
Other Receivables and Prepaid Items	2,510	
Miscellaneous	1,546	
	74,809	

Capital, Reserves and Liabilities

Share Capital	24,000	2/
General Reserve and Surplus	3,129	
Capital Surplus from Revaluation of Assets	14,811	
Equity	41,940	
Debts:		
Proposed IBRD Loan	6,563	
Other long term	13,956	
Floating debts (to Banks, etc.)	4,995	
Total debts	25,514	
Reserve for Social Security, etc.	2,676	
Miscellaneous	4,679	
	74,809	

1/ Includes investments in subsidiary companies other than TIFEO.
2/ Includes shares in TIFEO held by others than SGES of somewhat less than Lit. 1.5 billion.

S.G.E.S. AND TIFEO

Estimated Consolidated Income Statements and Forecast of Receipts and Expenditures

(in millions of Lire)

	1956	1957	1958	1959	1960
Gross Revenues	14,631	16,420	18,100	20,284	22,378
Operating Costs (including maintenance, fuel, cost of purchased power, and administrative expenses)	9,554	10,583	10,626	10,766	11,578
Taxes	940	1,020	1,243	1,488	1,912
Provision for depreciation and renewals	1,750	1,916	2,082	2,765	3,310
Total Cost of Operations	12,244	13,519	13,951	15,019	16,800
Net Income from Operations	2,387	2,901	4,149	5,265	5,578
Less: Interest	773	970	1,321	1,464	1,564
Net Profit	1,614	1,931	2,828	3,801	4,014
RECEIPTS					
Net Profit	1,614	1,931	2,828	3,801	4,014
Depreciation allowances	1,750	1,916	2,082	2,765	3,310
Proposed Sale of Capital Stock	2,500 1/	2,500 1/	1,499 2/	2,500 1/	
Proposed Borrowing:					
a) IBRD Loan Withdrawals 3/	2,434	2,484	1,645		
b) Other			5,000		
Increase in floating debt	1,121	2,265		1,521	2,876
Other Receipts	120	150	391	430	470
Total Receipts	9,539	11,246	13,445	11,017	10,670
EXPENDITURES					
Construction:					
a) Proposed IBRD Projects	3,292	4,140	2,703		
b) Other	4,300	4,700	6,500	7,500	6,800
Expenditures for Renewals 4/	350	383	417	555	660
Amortization of Debt:					
a) Proposed IBRD loan				232	246
b) Other debt	397	423	451	610	644
Dividends	1,200	1,600	1,860	2,120	2,320
Repayment of floating debt			1,514		
Total Expenditures	9,539	11,246	13,445	11,017	10,670

Notes:-

1/ Sale of Capital Stock by S.G.E.S.

2/ Sale of Capital Stock by TIFEO (to others than to S.G.E.S.)

3/ Basis of withdrawals is 60% of expenditures on proposed projects; withdrawal figure for 1956 includes 60% reimbursement of expenditures (Lire 765 million) made in 1955 (August and September).

4/ Represents investment of 20% of depreciation allowances, which company considers necessary for renewals.

SOCIETÁ MERIODIONALE DI ELETTRICITÁ (SME)
Condensed Balance Sheet as of December 31, 1955 1/
(in millions of Lire)

Assets

Fixed Assets	148,198
Less: Reserve for Depreciation	44,053
Net Bookvalue	104,145
Construction in Progress (including advance payments and construction stores)	16,177
Investments in subsidiaries and affiliated companies	18,966
Due from subsidiaries and affiliated companies	9,093
Current Assets	
a) Cash and Banks	357
b) Accounts Receivable — Sale of Energy	2,412
c) Stores	1,381
Miscellaneous	1,443
	153,974

Capital, Reserves and Liabilities

Share Capital (Subscribed)	61,236
Less: Not paid in 2/	4,686
Paid in	56,550
Reserves (Ordinary, Extra-ordinary)	1,868
Capital Surplus due to Revaluation of Assets	35,007
Equity	93,425
Long and Medium Term Debts	32,902
Floating Debt (due to Banks, etc.)	15,776
Current and Accrued Liabilities	4,317
Reserve for Social Security	1,611
Other provisions, etc.	3,087
Balance Profit and Loss (undivided Profits)	2,856
	153,974

1/ Non-consolidated figures; figures are based on trial balance at end of 1955
2/ Subject to call

SOCIETÁ MERIDIONALE DI ELETTRICITÁ (SME)

Condensed Income Statements
(in millions of Lire)

	1950/1951	1951/1952	1952/1953	1953/1954	1954/1955
Revenues					
Sales of Energy	9,197	10,385	12,328	14,582	16,886
Other Income	1,398	1,492	2,199	2,243	3,012
Subsidies and Receipts from Rate Equalization Fund			290	1,122	1,790
	10,595	11,877	14,817	17,947	21,688
Operation (including maintenance, cost of purchased power, fuel, general expenses)	6,452	6,486	7,751	7,589	8,761
Depreciation	1,100	1,500	2,300	3,500	4,000
Taxes	570	791	863	953	1,300
Total Operating Costs	8,122	8,777	10,914	12,042	14,061
Net Income from Operations	2,473	3,100	3,903	5,905	7,627
Less: Interest	514	717	1,492	2,505	3,463
Net Profit	1,959	2,383	2,411	3,400	4,164

SOCIETÁ MERIDIONALE DI ELETTRICITÁ GROUP
OPERATING STATISTICS

Loads, Generation, Purchases, Sales, Losses, Load Factor

Year	Peak load MW	Generation			Purchases GWh	Total supplied to Network GWh	Losses and own uses		Sales GWh	Load factor of network
		Hydro GWh	Thermal GWh	Total GWh			GWh	%		
1950	407	1,421	136	1,557	388	1,955	443	22.6	1,512	0.55
1951	440	1,794	4	1,798	345	2,143	442	20.6	1,701	0.56
1952	467	1,665	139	1,804	500	2,304	462	20.1	1,842	0.56
1953	545	1,985	30	2,015	512	2,527	476	18.8	2,051	0.53
1954	625	2,191	152	2,343	458	2,801	471	16.9	2,330	0.51
1955	625	2,279	200	2,479	528	3,007	546	18.2	2,461	0.55

S M E G R O U P 1/

Power Sales 1946 - 1955 and Forecasts 1956 - 1964

(Million kWh)

Categories of Consumers	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	Average Annual Increase 1946-1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	Average Annual Increase 1955-1956
Public Light	16	29	35	36	42	45	51.2	56	61	67	17.5 %	70	75	81	86	90	96	103	109	117	6.5 %
Private Light	147	169	181	169	182	193	199	217	243	264	7.0 %	282	303	325	350	376	404	433	466	500	7.5 %
Domestic 2/	73	83	94	81	84	95	131	161	196	217	13.0 %	245	270	299	332	369	409	454	503	559	11.0 %
Industry																					
Less than 30 kW	99	114	124	119	134	141	172	194	227	254	11.0%	282	319	359	403	455	512	577	650	730	12.8 %
Above 30 kW	233	278	367	331	410	502	533	652	743	808	15.0 %	957	1094	1249	1427	1627	1858	2119	2416	2754	14.7 %
Electro-chemical and Electro-metallurgical	98	301	313	228	377	451	449	484	491	485	20.0 %	493	501	509	517	524	531	538	546	554	1.5 %
Traction	133	169	170	200	211	195	210	196	206	214	6.0 %	222	232	241	250	260	271	281	293	304	4.0 %
Other Companies 3/	85	112	84	61	72	80	99	92	163	180	9.0 %	182	157	182	203	290	329	365	407	449	7.0 %
Total Sales	886	1256	1369	1225	1512	1701	1843	2051	2330	2461	12.0 %	2733	2952	3245	3568	3991	4410	4870	5390	5967	10.5 %

1/ SME - Pugliese, Campania, Calabrie, Lucana, SEBI.

2/ Cooking, heating, etc.

3/ 30% of sales to UNES.

S.M.E. GROUP

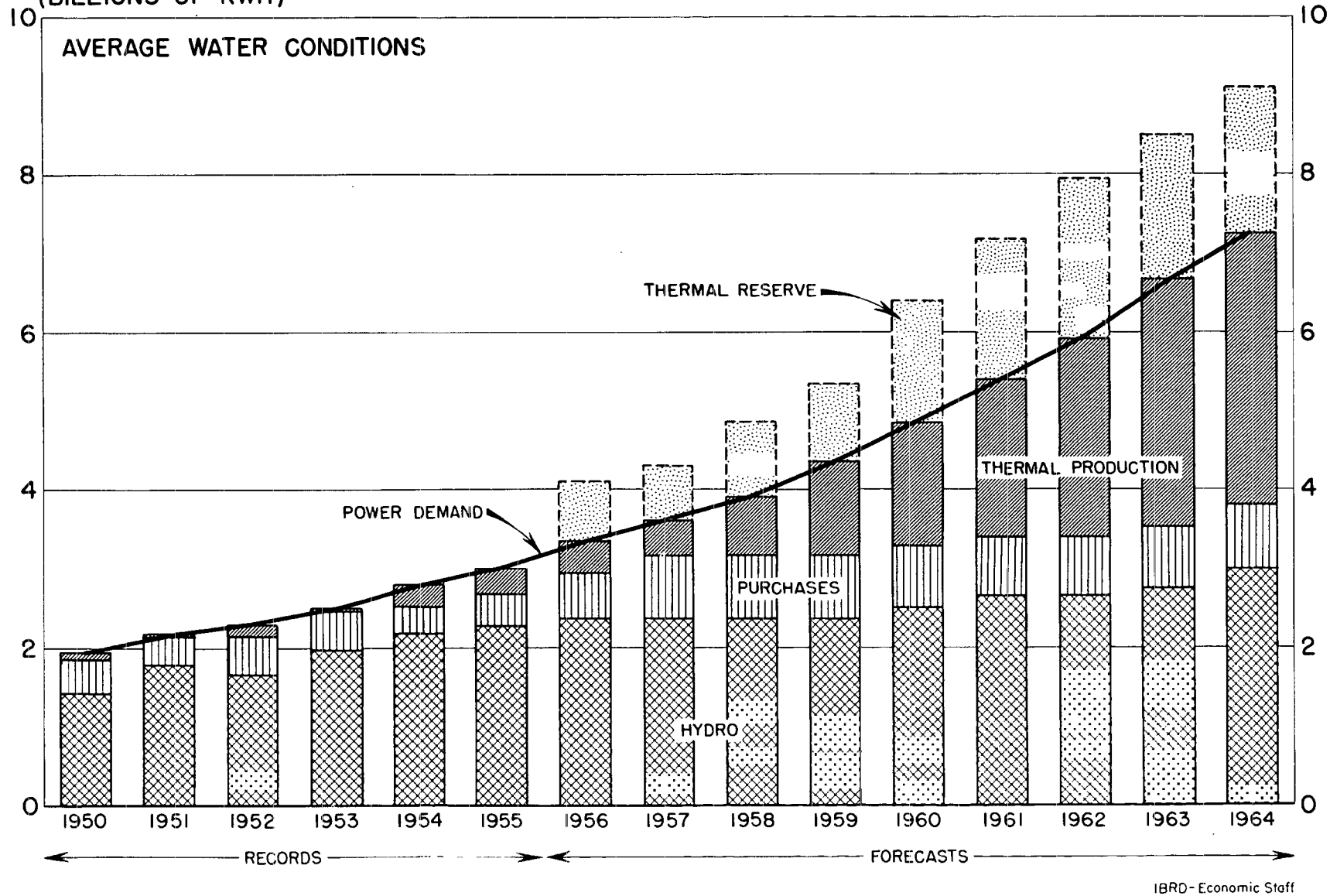
INVESTMENT PROGRAM 1955 - 1960
(Million Lire)

	1955	1956	1957	1958	1959	Total
A. Loan 117						
SME Projects Financed by $9 million portion of Loan 117						
A. Mucone II (Luzzi) 72 MW	2625	205	-	-	-	2,830
B. Matese extensions 14 MW	-	665	615	-	-	1,280
C. Mucone-Fratta transmission line 287 km of 220 kV	961	992	-	-	-	1,953
TOTAL SME	3586	1862	615			6,063
Pugliese Projects Financed by $12 million of Loan 117						
A. Bari Thermal Plant 120 MW	1343	3177	6980	-	-	11,500
B. Coscile II 4 MW	-	515	585	-	-	1,100
TOTAL PUGLIESE	1343	3692	7565			12,600
TOTAL OF PROJECTS FINANCED BY LOAN 117	4929	5554	8180			18,663
B. New Loan under consideration						
SME Project - Bussento Plant 52 MW	-	750	1500	1500	3000	6,750
TOTAL CONSIDERED IN NEW LOAN		750	1500	1500	3000	6,750
TOTAL IBRD PROJECTS	4929	6304	9680	1500	3000	25,413
C. Other Projects, Without IBRD Financing						
SME - Power Plants *	1375	250	5600	10000	20925	38,150
Transmission and substations	1159	3558	2500	3950	2000	13,167
Distribution	1400	2500	3500	5000	5000	17,400
Total	**3934**	**6308**	**11600**	**18950**	**27925**	**68,717**
Pugliese - Transmission and substations	1000	1600	850	2100	2000	7,550
Distribution	550	1300	2000	3600	4000	11,450
Total	1550	2900	2850	5700	6000	19,000
Calabrie - Transmission and substations	420	-	-	-	-	420
Distribution	837	1960	1580	1260	1050	6,687
Total	1257	1960	1580	1260	1050	7,107
Other Subsidiaries						
Salva Lete hydro plant - 50 MW (Campania)	-	200	3000	3800	-	7,000
Transmission, substations and distribution	493	2605	2405	3140	3950	12,593
Total	493	2805	5405	6940	3950	19,593
Total Other construction	7234	13973	21435	32850	38925	114,417
Total Construction Program of SME Group	12163	20277	31115	34350	41925	139,830

* Scontrone Hydro (6 MW) Basso Liri (20 MW), small irrigation plants, Thermo "A" and "B" (300 MW each).

ITALY: SME GROUP
AVAILABLE POWER AND DEMAND, 1950-1964

(BILLIONS OF KWH)



IBRD-Economic Staff

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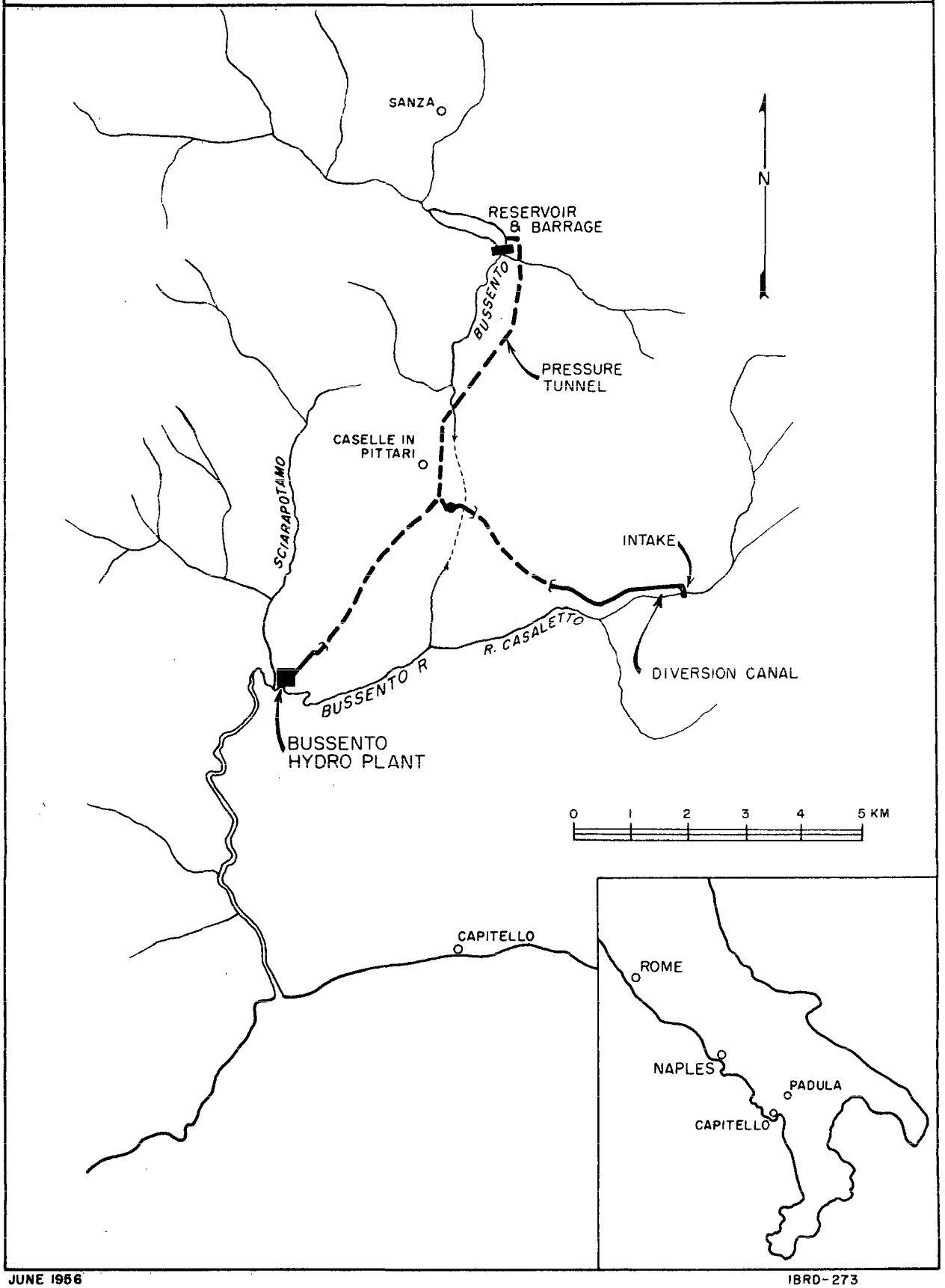
ANNEX 58

ITALY
SME
BUSSENTO PROJECT



JUNE 1956

IBRD-273

S.M.E.

Bussento Project

Construction Cost Estimates

	Million Lire
Expropriations	50
Dam	794
Intake of pressure tunnel	70
Pressure tunnel	1413
Surge tank	100
Cosaletto intake	80
Cosaletto canal and gallery	233
Penstock	737
Powerhouse	240
Equipment	1090
Substation	230
Connecting line	230
Sub-Total	5267
Contingencies (7.5%)	398
Engineering and Overhead (7%)	400
Interest during construction (11.2%)	685
TOTAL CONSTRUCTION COSTS	6750

($10.8 million equivalent)

SOCIETÁ MERIODINALE DI ELETTRICITÁ (SME)
Estimated Income Statements and Forecast of Receipts and Expenditures
(in millions of Lire)

	1956	1957	1958	1959	1960
Gross Revenues	27,933	32,288	36,202	40,817	49,380
Operating Costs (including maintenance, fuel, cost of purchased power and general expenses)	12,935	15,311	16,604	18,509	22,683
Depreciation	5,100	5,700	6,550	7,000	9,000
Taxes	1,500	1,850	2,240	2,500	2,800
Total Cost of Operations	19,535	22,861	25,394	28,009	34,483
Net Income from Operations	8,398	9,427	10,808	12,808	14,897
Less: Interest	3,548	3,016	3,054	4,658	4,457
Net Profit	4,850	6,411	7,754	8,150	10,440
RECEIPTS					
Net Profit	4,850	6,411	7,754	8,150	10,440
Depreciation allowances	5,100	5,700	6,550	7,000	9,000
Receipts from Operations	9,950	12,111	14,304	15,150	19,440
Proposed Borrowing:					
a) IBRD Loan No. 117 withdrawals	1,862	177			
b) Proposed IBRD Loan	450	900	900	1,800	
c) Other long and medium term	5,500		5,500	22,800	9,100
d) Floating debt	(-) 3,554 1/	2,104	177	694	312
Sale of Share Capital	4,686	12,247	10,000	5,000	22,000
Total Receipts	18,894	27,539	30,881	45,444	50,852
EXPENDITURES					
Construction:					
a) IBRD Projects -- 1st Loan	1,862	615			
b) IBRD Project — Proposed 2nd Loan	750	1,500	1,500	3,000	
c) Other Construction	6,308	11,600	18,950	27,925	36,600
Total New Construction	8,920	13,715	20,450	30,925	36,600
Other investments (plant renewals and investments in subsidiary companies)	3,615	6,590	1,791	4,616	2,602
Amortization of debt					
a) IBRD loan No. 117			204	214	226
b) Proposed IBRD loan					146
c) Other loans	1,978	2,048	1,851	2,189	2,683
Dividends	4,381	5,186	6,585	7,500	8,595
Total Expenditures	18,894	27,539	30,881	45,444	50,852

1/ minus figure indicates repayment

SOCIETA MERIODIONALE DI ELETTRICITA (SME)
Pro Forma Balance Sheet at December 31, 1959
(in millions of Lire)

Assets	
Fixed Assets and Work in Progress	242,577
Less: Reserve for Depreciation	68,403
	174,174
Investments in Subsidiaries and Affiliated Companies	31,386
Advances to Subsidiaries and Affiliated Companies	9,093
Current Assets	4,150
Miscellaneous	1,443
	220,246
Capital, Reserves and Liabilities	
Share Capital	103,000
Reserves and Earned Surplus	8,237
Capital Surplus from Revaluation of Assets	20,490
Equity	131,727
Debts:	
IBRD loan No. 117	4,981
Proposed 2nd IBRD Loan	4,050
Other long and medium term debt	55,276
Long and Medium Term Debt	64,307
Floating debt	15,697
Current and Accrued Liabilities	3,817
Reserve for Social Security, Other provisions, etc.	4,698
	220,246