Declassified E.O. 12356 Section 3.3/NND No. 785019

ACC 158/A/PWU

10000/150/465
(VOL.V)

RESTORATIO
PLANT & TR
PROGRESS R

Declassified E.O. 12356 Section 3.3/NND No. 785019

10000/150/465
(VOL. V)

RESTORATION OF ITALIAN ELECTRICAL PLANT & TRANSMISSION SYSTEM, PROGRESS REPORTS OCT. 1944 - JULY 1945

Tel: 489081
Ext: 317

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

COPY No. _____
WHL/sb

REFERENCE: 458/PWU

9 July 1945.

SUBJECT : Transmittal of Electric Plant Rehabilitation Report.

TO : See Distribution List Below.

1. Transmitted herewith is a copy of a report for the month of May 1945, prepared by the Electrical Division of the Public Works and Utilities Sub-Commission detailing the production of electricity and the progress of repairs to electric plants.

For the Chief Commissioner,

W. L. LAPPEN,
Lieut-Colonel,
Chief Elec. Div.

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[redacted]
AFHQ 394
Public Works and Utilities Sub-Commission

Electrical Division

Report on Progress of Restoration of Electrical Plant and Transmission System in Italy

Month of May 1945

I N D E X


Page No. 1 - General Information

Page No. 2 - Summary of progress during May.

Page No. 3 - Six months estimate of restoration of generating facilities.

Pages No. 4 - 7 - Details of progress of repairs to generating plants and associated equipment.

Pages No. 8 - 12 - Details of progress of repairs to transmission system.

Pages No. 13 - 14 - Maps showing area of Southern and Central Italy.


E X P L A N A T I O N

1) - The Electrical Division Monthly Report covers the rehabilitation of electricity supplies for Southern and Central Italy with provision for Northern Italy.

2) - The Advisory Committees on Electric Power constituted of prominent officials connected with the electricity supply industry have fixed the areas of Sardinia, Sicily, Southern Italy and Central Italy. These areas are mainly boundaries of electric companies and will be used in all reports. Maps are attached showing the Southern and Central areas.

3) - As the output of the hydro electric plants is, in many cases, affected by rainfall the nameplate or maximum capacity of the generating unit, except where otherwise stated, has been used. Figures for generating capacity are in megawatts (MW) i.e. thousands of kilowatts and length of transmission line in kilometers (Km.)


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3) - As the output of the hydro electric plants is, in many cases, affected by rainfall the nameplate or maximum capacity of the generating unit, except where otherwise stated, has been used. Figures for generating capacity are in megawatts (MW) i.e. thousands of kilowatts and length of transmission line in kilometers (Km.)

4) - Only generating plants of 1.0 MW and over are included in the progress details of this report. The large number of smaller plants under repair are not usually connected to the Grid System, their energy being available only to the locality in which they are situated.

A138
for W. H. Lapsley, Lieut-Colonel,
Chief Elec. Div.


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PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

GENERAL INFORMATION

Position at 31 M a Y 1945

| No. | | | South Italy | Central Italy | North Italy |
|---|---|---|---|---|---|
| 1 | Nameplate capacity of generating plant restored to service during May 1945 | MW | 0,0 | 15,0 | |
| 2 | Output capacity expected from above plant during May 1945 | MW | 0,0 | 0,0 | |
| 3 | Maximum load carried to date | MW | 162,9 | 121,2 | |
| 4 | Present average weekly units being generated | KWhx$10^6$ | 19,0 | 19,31 | |
| 5 | System load factor | % | 68 % | 79 % | |
| 6 | Percentage of units generated by hydro plants | % | 96 % | 91 % | |
| 7 | Length of transmission line restored in service during May 1945 (30 KV and above) | Km. | --- | 330 | |
| 8 | Approximate number of civilian labour directly engaged on Electrical | | Data not yet available | Data not yet available | |

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| | | | | | |
|---|---|---|---|---|---|
| | Put in service during May 1945 | kW | 0,0 | 15,0 | |
| 2 | Output capacity expected from above plant during May 1945 | kW | 0,0 | 0,0 | |
| 3 | Maximum load carried to date * | kW | 152,9 | 121,2 | |
| 4 | Present average weekly units being generated | $Kwhx10^6$ | 19,0 | 19,31 | |
| 5 | System load factor | % | 68 % | 79 % | |
| 6 | Percentage of units generated by hydro plants | % | 96 % | 91 % | |
| 7 | Length of transmission line restored in service during May 1945 (30 KV and above) | Km. | --- | 330 | |
| 8 | Approximate number of civilian labour directly engaged on Electrical Rehabilitation Work | No. | Data not yet available | Data not yet available | |

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* Central Italy including only Master Load Dispatcher controlled Grid.



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PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

Summary of Report on Progress of Rehabilitation of Electrical Generating Stations and Transmission Systems in Peninsular Italy, as at May 1945

GENERATING STATIONS

| No. | | South Italy MW | Central Italy MW | North Italy MW |
|---|---|---|---|---|
| 1 | Nameplate capacity of Generating Stations 31st December 1941 | 479,1 | 879,7 | 4,683,3 |
| 2 | Nameplate capacity available at time of occupation | 172,4 | 185,5 | --- |
| 3 | Actual output available at time of occupation | 111,8 | 51,8 | --- |
| 4 | Nameplate capacity available at 31 May 1945 | 277,0 | 279,5 | |
| 5 | Actual output available at May 1945 Central Italy including stations not controlled by Master Load Dispatcher. | 197,45 | 224,68 | |

TRANSMISSION SYSTEMS

| No. | (30 KV and above | Km. | Km. | Km. |
|---|---|---|---|---|
| 1 | Length of transmission line in operation 31 December 1941 | 4,493 | 9,409 | 25,000 |

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| | | | | |
|---|---|---|---|---|
| 1 | Nameplate capacity of Generating Stations 31st December 1941 | 473.1 | 879.7 | 4,683.3 |
| 2 | Nameplate capacity available at time of occupation | 172.4 | 105.5 | --- |
| 3 | Actual output available at time of occupation | 111.8 | 51.8 | --- |
| 4 | Nameplate capacity available at 31 May 1945 | 277.0 | 279.5 | |
| 5 | Actual output available at May 1945 Central Italy including stations not controlled by Master Road Dispatcher. | 197.45 | 224.65 | |

TRANSMISSION SYSTEM

| No. | (30 KV and above | Km. | Km. | Km. |
|---|---|---|---|---|
| 1 | Length of transmission line in operation 31 December 1941 | 4,493 | 9,409 | 25,000 |
| 2 | Length of transmission line available at time of occupation | 1,393 | 829 | ---- |
| 3 | Length of transmission line in operation at 30 May 1945 | 3,409 | 4614.5 | --- |



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PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

Estimate of additional generating plant expected to come into operation for the six months ending 30th November 1945.

(Nameplate capacity)

| Name of Station and Number of Unit | Location | YEAR 1945 | | | | | |
|---|---|---|---|---|---|---|---|
| | | June 30th | July 31st | Aug. 31st | Sept. 30th | Oct. 31st | Nov. 30th |
| | | kW | kW | kW | kW | kW | kW |
| CERANO N. 2 | S.M.E. | 5.5 | | | | | |
| PONTECURA | " | | 3.8 | | | | |
| PONTEMURE | " | 3.4 | | | | | |
| CASTELMADAMA | A.C.E.A. | 5.0 | | | | | |
| LANUELA | " | | | 3.0 | | | |
| SALISANO | " | | | | 8.0 | | |
| GENOSA | U.N.E.S. | | 8.0 | | | | |
| VENAFRITELLO | " | | 3.0 | | | | |
| GALLETO N.4 | TERNI | | 34.4 | | | | |
| GALLETO N.2 | " | | | | 34.4 | | |
| AVENTINO | S.M.E. | 4.2 | | | | | |
| ATRI | " | 5.2 | | | | | |
| CASTELNUOVO GARFAGNANA | VALDARNO | | 2.4 | | | | |
| SESTAIONE | " | | 1.42 | | | | |
| SPERANDIO | " | | 4.4 | | | | |
| LIRA N. 2 | " | 1.5 | | | | | |
| PESCARA III N. 1 | | | | | | 10 | |

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| | | kw | kw | kw | kw | kw | kw |
|---|---|---|---|---|---|---|---|
| CEPRANO N. 2 | S.A.E. | 5.5 | | | | | |
| FONTECURA | " | | 3.8 | | | | |
| PONTE DURE | " | 3.4 | | | | | |
| CASTELLABBA | A.C.E.A. | 5.0 | | | | | |
| LANDELA | " | | | 3.0 | | | |
| SALIBANO | " | | | | 8.0 | | |
| GEROSA | U.N.E.S. | | 8.0 | | | | |
| VENARIELLO | " | | 3.0 | | | | |
| GALLETO N.4 | TERNI | | 34.4 | | | | |
| GALLETO N.2 | " | | | | 34.4 | | |
| AVENI NO | S.A.E. | 4.2 | | | | | |
| LETE | " | 5.2 | | | | | |
| CASTELNUOVO GARFAGNANA | VALDARNO | | 2.4 | | | | |
| CESTAIONE | " | | 1.42 | | | | |
| SERRANDO | " | | 4.4 | | | | |
| LIMA N. 2 | " | 1.5 | | | | | |
| PESCARA III N. 1 | | | | | | 10 | |
| Monthly Increase | | 24.8 | 57.42 | 3.0 | 42.4 | 10 | |

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DETAILS OF POWER OF PLANTS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT

| Name of Station and Number of Unit | Company | Name plate size of unit under repair Kw | Expected date of Completion | DETAILS a) Progress - b) C c) Materials require |
|---|---|---|---|---|
| ACQUAVIA No.2 | S.R.E. | 4.0 | | Comple |
| PIAN DELLA ROCCA No.2 | VALDARNO | 11.0 | | Comple |
| CEPPANO No.2 | S.R.E. | 5.5 | 10 June '45 | a) Up to schedule<br>b) Coils late from<br>c) None. |
| AVENTINO No.1 | S.M.E. | 4.2 | 30 June '45 | a) Completed 90%<br>b) None.<br>c) None. |
| LIRA No.2 | VALDARNO | 1.5 | 15 June '45 | a) Slow.<br>b) Delay of transpo<br>c) None. |
| CASTEL M.M. | A.C.E.A. | 5.0 | June '45 | a) Up to revised sc<br>b) None.<br>c) None. |
| FONTE FIUME | S.A.E. | 3.4 | June '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| GALLETO No.4 | TERNI | 34.4 | July '45 | a) Slow.<br>b) Delay in deliver Sider. of Terni<br>c) Insulating mater |

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STATUS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT

| Company | Name plate size of unit under repair Kw | Expected date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| S.R.E. | 4.0 | | Completed |
| VALDARNO | 11.0 | | Completed |
| S.R.E. | 5.5 | 10 June '45 | a) Up to schedule<br>b) Coils late from Meter Co.<br>c) None. |
| S.R.E. | 4.2 | 30 June '45 | a) Completed 90%<br>b) None.<br>c) None. |
| VALDARNO | 1.5 | 15 June '45 | a) Slow.<br>b) Delay of transport.<br>c) None. |
| A.C.E.A. | 5.0 | June '45 | a) Up to revised schedule.<br>b) None.<br>c) None. |
| S.G.E. | 3.4 | June '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| TERNI | 34.4 | July '45 | a) Slow.<br>b) Delay in delivering from Stablim. Sider. of Terni and Brown-Boveri Co.<br>c) Insulating materials. |

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DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT

| Name of Station and Number of Unit | Company | Name plate size of unit under repair kW. | Expected date of Completion | k<br>a) Progress -<br>x) Materials req |
|---|---|---|---|---|
| VENAFIELLO | U.N.E.S. | 3.0 | July '45 | a) Up to sched<br>b) None.<br>c) None. |
| GENOSA No.1 | U.N.E.S. | 8.0 | July '45 | a) Up to revis<br>b) Lack. of c<br>c) None. |
| MONTECUPA | U.N.E.S. | 3.8 | July '45 | a) Up to sched<br>b) None<br>c) Cement. |
| SPERANDO No.1 | VALLARNO | 4.4 | July '45 | a) Roofing ter<br>b) None<br>c) None. |
| CASTELNUOVO GARF. No.2 | VALDARNO | 2.4 | July '45 | a) Up to sche<br>b) None<br>c) None. |
| STAZIONE (FORLI) No.1 | VALDARNO | 1.42 | July '45 | a) Up to sche<br>b) None.<br>c) None. |
| MANDELA | A.C.E.M. | 3.0 | August '45 | a) Up to sched<br>b) None.<br>c) None. |
| GALLIPÓ No.2 | TERNI | 34.4 | September '45 | a) Slow.<br>b) Delay in d<br>of Terni a<br>c) Rubber pac |

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DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| Company | Name plate size of unit under repair KW | Expected date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| U.N.E.S. | 3.0 | July '45 | a) Up to schedule<br>b) None.<br>c) None. |
| U.N.E.S. | 8.0 | July '45 | a) Up to revised schedule<br>b) Lack. of cast iron. in foundry.<br>c) None. |
| S.M.E. | 3.8 | July '45 | a) Up to schedule<br>b) None<br>c) Cement. |
| VALDARNO | 4.4 | July '45 | a) Roofing terrace construction continues.<br>b) None<br>c) None. |
| VALDARNO | 2.4 | July '45 | a) Up to schedule<br>b) None<br>c) None. |
| VALDARNO | 1.42 | July '45 | a) Up to schedule<br>b) None.<br>c) None. |
| A.C.E.M. | 3.0 | August '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| TERNI | 34.4 | September '45 | a) Slow.<br>b) Delay in delivering from Steb. Siem. of Terni and Later Co.<br>c) Lacking packing materials. |

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DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (cont

| Name of Station and Number of Unit | Company | Name plate size of unit under repair KW | Expected date of Completion | I n K a<br>a) Progress - b) C<br>c) Materials required |
|---|---|---|---|---|
| SALTO No | A.C.E.... | 8.0 | September '45 | a) Up to schedule<br>b) None<br>c) None |
| PESCARA III No.1 | S.A.E. | 10.0 | October '45 | a) Repaired 30%<br>b) Shortage of transp<br>c) Carbide and coke. |
| ACQUOLA No.3 | S.A.E. | 14.0 | December '45 | a) Up to schedule<br>b) None<br>c) Insulating materi |
| FARFA No.2 | S.A.E. | 6.0 | December '45 | a) Up to revised sch<br>b) None<br>c) Insulating materi |
| MOLINO | S.A.E. | 6.0 | December '45 | a) Up to schedule<br>b) None<br>c) Insulating materi |
| PESCARA III No.2 | S.A.E. | 10.0 | December '45 | a) Repaired 10%<br>b) None<br>c) None. |
| VENAFRO TELIO | U.N.R.R.A. | 6.0 | December '45 | a) Up to schedule<br>b) Previously crowde<br>c) Insulating materi |
| COTILIA No.2 | TERNI | 24.0 | January '46 | a) Slow.<br>b) Delay in deliver<br>c) Insulating materi |

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OF PROGRESS OF WORKS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| Company | Name plate size of unit under repair kW | Expected date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| S.E.... | 8.0 | September '45 | a) Up to schedule<br>b) None<br>c) None |
| ...E. | 10.0 | October '45 | a) Repaired 30%<br>b) Shortage of transport<br>c) Carbide and coke. |
| ...E. | 14.0 | December '45 | a) Up to schedule<br>b) None<br>c) Insulating materials. |
| ...E. | 6.0 | December '45 | a) Up to revised schedule.<br>b) None<br>c) Insulating materials and cement |
| ...E. | 6.0 | December '45 | a) Up to schedule<br>b) None<br>c) Insulating materials and cement. |
| ...E. | 10.0 | December '45 | a) Repaired 10%<br>b) None<br>c) None. |
| ...E.S. | 8.0 | December '45 | a) Up to schedule<br>b) Previously crowded shop facilities.<br>c) Insulating materials. |
| ...NI | 24.0 | January '46 | a) Slow.<br>b) Delay in delivering from Stab. of Terni.<br>c) Insulating materials. |

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DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Contin

| Name of Station and Number of unit | Company | Name plate size of unit under repair kW | Expected date of Completion | REMARKS a) Progress - b) Cau c) Materials required. |
|---|---|---|---|---|
| PESCARA IV | S.A.E. | 6.2 | January '46 | a) Up to revised schedu<br>b) Transportation of da<br>c) None. |
| ANVERSA | F.F.S.S. | 10.0 | January '46 | a) Slow.<br>b) Shortage of transpor<br>c) None. |
| LIVORNO | VALDARNO | 11.0 | Not yet accurately determined. | a) Up to revised schedu<br>b) Lack of cement.<br>c) Cement. |
| BUSSI SUL TIRINO II | SOC.IAZ. CaB.IC. | 1.0 | Not yet accurately determined. | a) Dismantling alternat power house.<br>b) No priority for new<br>c) --- |
| PESCARA II No.1 | S.A.E. | 6.0 | Not yet accurately determined. | a) Dismantling of plan<br>b) Building completely<br>c) --- |
| PESCARA II No.2 | S.A.E. | 6.0 | Not yet accurately determined. | a) Dismantling of plan<br>b) Building completely<br>c) --- |
| IETE | S.A.E. | 5.2 | June '45 | a) Completed 90%.<br>b) None.<br>c) None. |
| | | | | |

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DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| Company | Name plate size of unit under repair kW | Expected date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| S.M.E. | 8.2 | January '46 | a) Up to revised schedule.<br>b) Transportation of damaged parts.<br>c) None. |
| FE.SS. | 10.0 | January '46 | a) Slow.<br>b) Shortage of transport.<br>c) None. |
| VALLINO | 11.0 | Not yet accurately determined. | a) Up to revised schedule.<br>b) Lack of cement.<br>c) Cement. |
| SOC. AZ. GRAIG. | 1.0 | Not yet accurately determined. | a) Dismantling alternator and rebuilding power house.<br>b) No priority for new castings.<br>c) --- |
| S.M.E. | 6.0 | Not yet accurately determined. | a) Dismantling of plant begun.<br>b) Building completely demolished.<br>c) --- |
| S.M.E. | 6.0 | Not yet accurately determined. | a) Dismantling of plant begun.<br>b) Building completely demolished.<br>c) --- |
| S.M.E. | 5.2 | June '45 | a) Completed 90%.<br>b) None.<br>c) None. |
| | | | |

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DETAILS OF PROGRESS OF WORKS TO TRANSLOCATE SYSTEM.

| Name of Line | Company | Voltage of Line kV | Expected date of Completion | REMARKS a) Progress - b) Causes c) Materials required. |
|---|---|---|---|---|
| PESCIA - FONTELEIA | VALDARNO | 30 | | Complete |
| ALFOLI - S.CROCE FONTELEIA. | VALDARNO | 30 | | Complete |
| LIVORNO - FONTELEIA | VALDARNO | 30 | Unknown | a) Livorno-Altopascio<br>b) None.<br>c) None. |
| F.DELLA ROCCA - CORTONA | VALDARNO | 60 | June '45 | a) Up to revised sched<br>b) Mines to be cleared<br>c) None. |
| CAVENUZZE CALTICINO | VALDARNO | 120 | | Complete |
| FOLIGNO - CHIUSI | TERNI | 120 | July '45 | a) 10 towers replaced.<br>b) Transport shortage.<br>c) 3 tons truck. |
| COTILIA - PESCARA III | TERNI | 150 | November '45 | a) 28 towers replaced.<br>b) None.<br>c) Angle-bars, oxigen. |
| C/LI VEJE -C/LE AVENTINO | U.N.E.S. | 30 | June '45 | a) Up to schedule.<br>b) None.<br>c) None. |

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DETAILS OF PROGRESS OF WORKS TO TRANSMISSION SYSTEM.

| Company | Voltage of line kV | Expected date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| VALDAGNO | 30 | | Completed. |
| VALDAGNO | 30 | | Completed. |
| VALDAGNO | 30 | Unknown | a) Laverne-Altopascio circuit completed.<br>b) None.<br>c) None. |
| VALDAGNO | 60 | June '45 | a) Up to revised schedule.<br>b) Mines to be cleared.<br>c) None. |
| VALDAGNO | 120 | | Completed |
| TEMI | 120 | July '45 | a) 10 towers replaced.<br>b) Transport shortage.<br>c) 5 tons truck. |
| TEMI | 150 | November '45 | a) 28 towers replaced.<br>b) None.<br>c) angle-bars, oxigen, truck. |
| S.N.E.S. | 30 | June '45 | a) Up to schedule.<br>b) None.<br>c) None. |

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DETAILS OF PROGRESS ON REPAIRS TO TRANSMISSION SYSTEM (Continued)

| Name of Line | Voltage | Voltage of Line kV | Expected Date of Completion | R E L A R<br>a) Progress - b) C<br>c) Materials require |
|---|---|---|---|---|
| CINECITTA' - ALIANO | S.A.E. | 60 | 1 July '45 | a) Up to schedule.<br>b) Delay in copper del<br>c) None. |
| CANTENNO - CINECITTA' | S.A.E. | 150 | October '45 | a) Slow.<br>b) Lack of cement.<br>c) Cement and copper |
| MORENO - CANTENNO | S.A.E. | 150 | October '45 | a) Slow.<br>b) Lack of cement.<br>c) Cement and copper |
| GUIGLIANO - BARANOLA | S.A.E. | 60 | June '45 | a) Repaired 35%.<br>b) Laterial & transpo<br>be cleared.<br>c) Angle-bars. |
| LEPE - AVELLINO | S.A.E. | 88 | September '45 | a) One circuit repai<br>b) None.<br>c) None. |
| ALIANO - ARCHI | S.A.E. | 150 | September '45 | a) Repaired 25%.<br>b) Laterials and tra<br>c) Angle-bars, carbi |
| ARCHI-FIUMARAGGIORE | S.A.E. | 150 | September '45 | a) Repaired 16%.<br>b) Shortage of inter<br>c) Copper conductors |
| PRENESTINA - AVERSA | FF.SS. | 60 | November '45 | a) Prenestina-Bogani<br>b) None.<br>c) None. |

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DETAILS OF PROGRESS OF WORKS TO TRANSMISSION LINES (Continued)

| Voltage | Voltage of Line kV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| S.A.E. | 60 | 1 July '45 | a) Up to schedule.<br>b) Delay in copper delivering.<br>c) None. |
| S.A.E. | 150 | October '45 | a) Slow.<br>b) Lack of cement.<br>c) Cement and copper conductors. |
| S.A.E. | 150 | October '45 | a) Slow.<br>b) Lack of cement.<br>c) Cement and copper conductors. |
| S.A.E. | 60 | June '45 | a) Repaired 35%.<br>b) Laterial & transport shortage; mines to be cleared.<br>c) Angle-bars. |
| S.A.E. | 88 | September '45 | a) One circuit repaired 60%.<br>b) None.<br>c) None. |
| S.A.E. | 150 | September '45 | a) Repaired 25%.<br>b) Materials and transport shortage.<br>c) Angle-bars, carbine, oxigen. |
| S.A.E. | 150 | September '45 | a) Repaired 46%.<br>b) Shortage of Laterials and transport.<br>c) Copper conductors and angle-bars. |
| FF.SS. | 60 | November '45 | a) Frenestino-Bagni di Tivoli completed.<br>b) None.<br>c) None. |

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DETAILS OF PROGRESS OF WORKS TO TRANSMISSION SYSTEM (Continued)

| Name of Line | Company | Voltage of Line kV | Expected date of Completion | I. P. L.<br>a) Progress - b)<br>c) Materials requ |
|---|---|---|---|---|
| FONTEMAGLIO - ASCOLI | U.N.E.S. | 65 | Unknown | a) Works begun.<br>b) None.<br>c) None. |
| PEDACO - FONTE CLOCE ROSSA | U.N.E.S. | 65 | September '45 | a) Slow.<br>b) Lack of materials.<br>c) Aluminium conduct |
| CASTEL MADAMA - TIVOLI | A.C.E.A. | 65 | Unknown | a) 2nd circuit works<br>b) None.<br>c) None. |
| TERNI - S. PAOLO - PRENESTINA | A.C.E.A. | 60 | June '45 | a) S.Paolo-Prenestin<br>b) Lack of conductors<br>c) Copper conductors. |
| 6711 MONTEROTONDO - C. MADAMA | A.C.E.A. | 75 | Unknown | a) 2nd circuit towers<br>b) None.<br>c) None. |
| CECCANO - FONTINA | S.M.E. | 60 | | Completed. |
| TERNI - TOR DI QUINTO | S.M.E. | 60 | | Completed. |
| TERNI - TIBURTINO | S.M.E. | 60 | | Completed. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF WORKS TO TRANSMISSION SYSTEM (Continued)

| Company | Voltage of line kV | Expected date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| U.N.E.S. | 65 | Unknown | a) Works begun.<br>b) None.<br>c) None. |
| U.N.E.S. | 65 | September '45 | a) Slow.<br>b) Lack of materials. Shortage of transport.<br>c) Aluminium conductors. |
| A.C.E.A. | 60 | Unknown | a) 2nd circuit works begun.<br>b) None.<br>c) None. |
| A.C.E.A. | 60 | June '45 | a) S.Paolo-Prenestina circuit completed.<br>b) Lack of conductors.<br>c) Copper conductors. |
| A.C.E.A. | 75 | Unknown | a) 2nd circuit towers replaced.<br>b) None.<br>c) None. |
| S.A.E. | 60 | | Completed. |
| S.A.E. | 60 | | Completed. |
| S.A.E. | 60 | | Completed. |

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DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION LINES (Continued)

| Name of Line | Company | Voltage of Line kV | Expected Date of Completion | R E M A R K S<br>a) Progress - b) Difficulties - c) Materials required |
|---|---|---|---|---|
| RIFREDI - GRIZZANA | FF.SS. | 120 | July '45 | a) Completed 80%.<br>b) None.<br>c) None. |
| FOLIGNO - FALCONARA (odd) | FF.SS. | 120 | Unknown | a) Up to schedule.<br>b) None.<br>c) None. |
| FOLIGNO - FALCONARA (even) | FF.SS. | 120 | November '45 | a) Foligno-Genga comp<br>b) Lack of carbide, c<br>c) Carbide, oxigen, |
| LARDERELLO - PONTICINO | FF.SS. | 120 | September '45 | a) Works just begun.<br>b) None.<br>c) None. |
| ORTE - CHIUSI | FF.SS. | 120 | August '45 | a) Orte-Orvieto odd<br>b) Shortage of trans<br>c) None. |
| CHIUSI - CAMUCCIA | FF.SS. | 120 | June '45 | a) Completed 98%.<br>b) None.<br>c) None. |
| CAMUCCIA - PONTICINO | FF.SS. | 120 | | ..... ..Odd circuit |
| PONTICINO - RIFREDI | FF.SS. | 120 | July '45 | a) One circuit 50%<br>b) None.<br>c) None. |

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DETAILS OF INCOMPLETE OR DELAYED TRANSMISSION LINES (Continued)

| Company | Voltage of Line kV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| FF.85. | 120 | July '45 | a) Completed 80%.<br>b) None.<br>c) None. |
| FF.86. | 120 | Unknown | a) Up to schedule.<br>b) None.<br>c) None. |
| FF.87. | 120 | November '45 | a) Foligno-Ponte completed.<br>b) Lack of carbide, oxigen, angle-bars.<br>c) Carbide, oxigen, angle-bars. |
| FF.88. | 120 | September '45 | a) Works just begun.<br>b) None.<br>c) None. |
| FF.89. | 120 | August '45 | a) Orte-Orvieto odd circuit completed.<br>b) Shortage of transport.<br>c) None. |
| FF.90. | 120 | June '45 | a) Completed 98%.<br>b) None.<br>c) None. |
| FF.91. | 120 | | Odd circuit completed. |
| FF.92. | 120 | July '45 | a) One circuit 50% completed.<br>b) None.<br>c) None. |

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DETAILS OF PROPOSED OR RECENTLY AUTHORIZED TRANSMISSION SYSTEM (Continued)

| Name of Line | Company | Voltage of line kV | Expected date of completion | Remarks<br>a) Progress - b<br>c) Materials req |
|---|---|---|---|---|
| LAVEGELLO - CASCINA | FF.SS. | 120 | September '45 | a) One circuit works<br>b) None.<br>c) None. |
| CASCINA - S. DONATO | FF.SS. | 120 | Unknown | Work to be co |
| PONTICINO - LUCCIONE | FF.SS. | 120 | Unknown | Work to be co |
| | | | | |
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DETAILS OF PROGRESS OF NEW POWER TRANSMISSION SYSTEM (Continued)

| ...ny | Voltage of line KV | Expected date of completion | REMARKS<br>a) Progress - b) Cause of Delay - c) Materials required. |
|---|---|---|---|
| ...o. | 120 | September '45 | a) One circuit works just begun.<br>b) None.<br>c) None. |
| ...o. | 120 | Unknown | Work to be contracted for. |
| ...o. | 120 | Unknown | Work to be contracted for. |
| | | | |
| | | | |
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| | | | |

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HEADQUARTERS ALLIED COMMISSION
AFO 394
Public Works and Utilities Sub-Commission

..kl/ms

Electrical Division

Report on Progress of Restoration of Electrical Plant and Transmission System in Italy

Month of April 1945

I N D E X


Page No. 1 - General data.

Page No. 2 - Summary of progress during April.

Page No. 3 - Six months estimate of restoration of generating facilities.

Pages No. 4 - 7 - Details of progress of repairs to generating plants and associated equipment.

Pages 8 - 11 - Details of progress of repairs to transmission system.


Note: The area of Southern and Central Italy referred to in the attached report remains unchanged. Maps (pages - 11 - 12) attached to March report apply to April '45 report.

E X P L A N A T I O N

1) - The Electrical Division Monthly Report is now published in new form. It covers the rehabilitation of electricity supplies for Southern and Central Italy with provision for Northern Italy.

2) - The Advisory Committees on Electric Power constituted of prominent officials connected with the electricity supply industry have fixed the areas of Sardinia, Sicily, Southern Italy and Central Italy. These areas are mainly boundaries of electric companies and will be used in all reports. Maps are attached to March report showing the Southern and Central areas.

3) - As the output of the hydro electric plants is, in many cases, affected by rainfall the nameplate or maximum capacity of the generating unit, except where otherwise stated, has been used. Figures for generating capacity are in megawatts (MW) i.e. thousands of kilowatts and length of transmission line in kilo-

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4) - Only generating plants of 1.0 MW and over are included in the progress details of this report. The large number of smaller plants under repair are not usually connected to the Grid System, their energy being available only to the locality in which they are situated.

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W.M. LAFFAN
Lieut-Colonel,
Chief Elec. Div.

Declassified E.O. 12356 Section 3.3/NND No. 785019

PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

USEFUL INFORMATION AT A GLANCE

Position at 30 April 1945

| No. | | | South Italy | Central Italy | North Italy |
|---|---|---|---|---|---|
| 1 | Nameplate capacity of generating plant restored to service during April 1945 | MW | 0.6 | 41.20 | - |
| 2 | Output capacity expected from above plant during May 1945 | MW | 0.6 | 39.00 | - |
| 3 | Maximum load carried to date | MW | 173.5 # | 117.0 | - |
| 4 | Present average weekly units being generated | KWx$10^6$ | 19.5 # | 18.81 | - |
| 5 | System load factor | % | 75 % # | 79 % | - |
| 6 | Percentage of units generated by hydro plants | % | 95 % # | 90 % | - |
| 7 | Length of transmission line restored to service during April 1945 (30 KV and above) | Kms | 213 | 352.5 | - |

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| | | | | | |
|---|---|---|---|---|---|
| | red to service during April 1945 | | | | |
| 2 | Output capacity expected from above plant during May 1945 | MW | 0.6 | 39.00 | - |
| 3 | Maximum load carried to date | MW | 173.5 # | 117.0 | - |
| 4 | Present average weekly units being generated | KWhr.$10^6$ | 19.5 # | 18.81 | - |
| 5 | System load factor | % | 75 % # | 79 % | - |
| 6 | Percentage of units generated by hydro plants | % | 95 % # | 90 % | - |
| 7 | Length of transmission line restored in service during April 1945 (30 KV and above) | Kms. | 215 | 352.5 | - |
| 8 | Approximate number of civilian labour directly engaged on Electrical Rehabilitation Work | No. | 940 # | 3,965 | - |

# Southern Italy generation for April estimated. March figure used.



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PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

Summary of Report on Progress of Rehabilitation of Electrical Generating Stations and Transmission Systems in Peninsular Italy, as at 30 April 1945

GENERATING STATIONS

| No. | | South Italy KW | Central Italy KW | North Italy KW |
|---|---|---|---|---|
| 1 | Nameplate capacity of Generating Stations 31 December 1941 | 473.1 | 879.7 | 4,683.3 |
| 2 | Nameplate capacity available at time of occupation | 172.4 | 105.5 | - |
| 3 | Actual output available at time of occupation | 111.8 | 51.8 | - |
| 4 | Nameplate capacity available at 30 April 1945 | 277.0 | 264.50 | - |
| 5 | Actual output available at 30 April 1945 (Note: Southern Italy generation estimated. March figures used). | 174.7 | 198.2 | - |

TRANSMISSION SYSTEM

| No. | (38 KV and above) | Km. | Km. | Km. |
|---|---|---|---|---|
| 1 | Length of transmission line in operation 31 December 1941 | 4,493 | 9,409 | 25,000 |

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| | | | | |
|---|---|---|---|---|
| 2 | Nameplate capacity available at time of occupation | 172.4 | 105.5 | - |
| 3 | Actual output available at time of occupation | 111.8 | 51.8 | - |
| 4 | Nameplate capac ity available at 30 April 1945 | 277.0 | 264.50 | - |
| 5 | Actual output available at 30 April 1945 (Note: Southern Italy generation estimated. March figures used). | 174.7 | 198.2 | - |

TRANSMISSION SYSTEM

| No. | (30 KV and above) | Km. | Km. | Km. |
|---|---|---|---|---|
| 1 | Length of transmission line in operation 31 December 1941 | 4,493 | 9,409 | 25,000 |
| 2 | Length of transmission line available at time of occupation | 1,393 | 829 | - |
| 3 | Length of transmission line in operation at 30 April 1945 | 1,192 | 4,284.5 | - |



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PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

Estimate of additional generating plants expected to come into operation for the six months ending 31 October 1945
(Nameplate capacity)

| Name of Station and Number of unit | Location | YEAR 1945 | | | | | |
|---|---|---|---|---|---|---|---|
| | | May 31st | June 30th | July 31st | Aug. 31st | Sept. 30th | Oct. 31st |
| | | MW | MW | MW | MW | MW | MW |
| ACQUORIA No. 2 | S.M.E. | 4.0 | | | | | |
| CEIRA.O No. 2 | " | | 5.5 | | | | |
| FO.TECURA | " | | | 3.8 | | | |
| FO.TEFIURE | " | | | 3.4 | | | |
| CASTELNADANA | A.C.E.A. | | 5.0 | | | | |
| MA.DELA | " | | | | 3.0 | | |
| SALISANO | " | | | | | 8.0 | |
| GEROSA | U.N.E.S. | | | 8.0 | | | |
| VELMARTELLO | " | | 3.0 | | | | |
| GALLETO No. 4 | TERNI | | 34.4 | | | | |
| GALLETO No. 2 | | | | | 34.4 | | |
| AVENTINO | S.M.E. | 4.2 | | | | | |
| LETE | | | | 5.2 | | | |
| CASTELNUOVO GARFAGNANA | VALDARNO | | | 2.4 | | | |
| SESTAIONE | " | | | 1.42 | | | |
| STEFANO | " | | | 4.4 | | | |
| LIDA No. 2 | " | 1.5 | | | | | |
| | " | 11.0 | | | | | |

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| | | MW | MW | MW | MW | MW | MW |
|---|---|---|---|---|---|---|---|
| ACQUORIA No. 2 | S.R.E. | 4.0 | | | | | |
| CERRA.O no. 2 | " | | 5.5 | | | | |
| FO.TECCHIA | " | | | 3.8 | | | |
| FO.TEFIURE | " | | | 3.4 | | | |
| CASTELNADANA | A.C.E.A. | | 5.0 | | | | |
| MA.DELA | " | | | | 3.0 | | |
| SA.ISA.O | " | | | | | 8.0 | |
| GEROSA | U.M.E.S. | | | 8.0 | | | |
| VE.AMHTELLO | " | | 3.0 | | | | |
| GA..ETO no. 4 | TERNI | | 34.4 | | | | |
| GALLETO no. 2 | | | | | 34.4 | | |
| AVENTINO | S.E.E. | 4.2 | | | | | |
| LEPE | | | | 5.2 | | | |
| CASTELNUOVO CAFFAGNANA | VALDARNO | | | 2.4 | | | |
| SESTAIONE | " | | | 1.42 | | | |
| SERRANDO | " | | | 4.4 | | | |
| LELA No. 2 | " | 1.5 | | | | | |
| PIAN DELLA ROCCA No.2 | " | 11.0 | | | | | |
| Monthly Increase | | 20.7 | 47.9 | 28.62 | 37.4 | 8.0 | - |

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DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT

| Name of Station and Number of unit | Company | Name plate size of unit under repair kW | Expected Date of Completion | Remarks a) Progress - b) Cause of delay - c) Ma |
|---|---|---|---|---|
| ACQUORIA No. 2 | S.I.E. | 4.0 | May '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| LILA No. 2 | VALDALNO | 1.5 | May '45 | a) Up to revised schedule.<br>b) None.<br>c) None. |
| PIAN DELLA ROCCA No. 2 | VALDALNO | 11.0 | May '45 | a) Up to revised schedule.<br>b) None.<br>c) None. |
| AVETLIO No. 1 | S.E.E. | 4.2 | June '45 | a) Up to revised schedule.<br>b) Fabrication difficulties penstock<br>c) None. |
| CERRANO No. 2 | S.I.E. | 5.5 | June '45 | a) Slow.<br>b) Coils late from water co.<br>c) None. |
| GALLETO No. 4 | TERNI | 31.4 | June '45 | a) Up to schedule.<br>b) None.<br>c) Rubber packing. |
| VENAFIORELLO | U.N.E.S. | 3.0 | June '45 | a) Up to schedule.<br>b) None.<br>c) Insulating tape and solder. |
| CASTEL MADAMA | A.C.E.A. | 5.0 | June '45 | a) Up to revised schedule.<br>b) Lack of shop facilities.<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

OF PROGRESS OF REPAIRS TO UNDERLYING PLATES AND ASSOCIATED EQUIPMENT

| ny | Name plate size of unit under repair lbs | Expected Date of Completion | REMARKS<br>a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| o. | 4.0 | May '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| 40 | 1.5 | May '45 | a) Up to revised schedule.<br>b) None.<br>c) None. |
| 40 | 11.0 | May '45 | a) Up to revised schedule.<br>b) None.<br>c) None. |
| E. | 4.2 | June '45 | a) Up to revised schedule.<br>b) Fabrication difficultien penstock Plates.<br>c) None. |
| L. | 5.5 | June '45 | a) Slow.<br>b) Coils late from mator Co.<br>c) None. |
| .I | 34.4 | June '45 | a) Up to schedule.<br>b) None.<br>c) Rubber packing. |
| E.S. | 3.0 | June '45 | a) Up to schedule.<br>b) None.<br>c) Insulating tape and solder. |
| E.A. | 5.0 | June '45 | a) Up to revised schedule.<br>b) Lack of shop facilities.<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| Name of Station and Number of unit | Company | Name plate size of unit under repair kW | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c |
|---|---|---|---|---|
| GENOSA I No. 1 | U.E.E. | 8.0 | July '45 | a) Up to revised schedule.<br>b) Lack of foundry and shop facilit<br>c) None. |
| PONTECUFA | S.R.E. | 3.8 | July '45 | a) Up to schedule.<br>b) None.<br>c) Steel and Cement. |
| PONTE FIUME | S.R.E. | 3.4 | July '45 | a) Slow.<br>b) Lack of steel shapes for intake.<br>c) Steel. |
| SPERLNDO No. 1 | VALDARNO | 4.4 | July '45 | a) Walls repaired. Roofing terrace<br>b) Lack of cement.<br>c) Cement. |
| CASTELNUOVO GARFAGNANA No. 2 | VALDARNO | 2.4 | July' 45 | a) Up to schedule.<br>b) None.<br>c) None. |
| SESTAIONE (FONTINO) No. 1 | VALDARNO | 1.42 | July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| MANDELA | A.C.E.A. | 3.0 | Aug. '45 | a) Slow.<br>b) Insufficient shop facilities.<br>c) Steel. |
| GALLETO No. 2 | TERNI | 34.4 | Aug. '45 | a) Up to schedule.<br>b) None.<br>c) Rubber packing materials. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| Name plate size of unit under repair KW | Expected Date of Completion | REMARKS<br>a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|
| 8.6 | July '45 | a) Up to revised schedule.<br>b) Lack of foundry and shop facilities.<br>c) None. |
| 3.8 | July '45 | a) Up to schedule.<br>b) None.<br>c) Steel and Cement. |
| 3.4 | July '45 | a) Slow.<br>b) Lack of steel shapes for intake gates.<br>c) Steel. |
| 4.4 | July '45 | a) Walls repaired. Roofing terrace construction suspended.<br>b) Lack of cement.<br>c) Cement. |
| 2.4 | July' 45 | a) Up to schedule.<br>b) None.<br>c) None. |
| 1.42 | July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| 3.0 | Aug. '45 | a) Slow.<br>b) Insufficient shop facilities.<br>c) Steel. |
| 34.4 | Aug. '45 | a) Up to schedule.<br>b) None.<br>c) Rubber packing materials. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO GENERATING UNITS AND ASSOCIATED EQUIPMENT (Continued)

| Name of Station and Number of unit | Company | Name plate size of unit under repair kw. | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - |
|---|---|---|---|---|
| SALERNO | A.C.E.A. | 8.0 | Sept. '45 | a) Slow.<br>b) Castings from Terni late. |
| CCTILIA | TERNI | 24.0 | Nov. '45 | a) Slow.<br>b) Shortage of transport.<br>c) None. |
| PESCARA III No. 1 | S.A.E. | 10.0 | Nov. '45 | a) Up to revised schedule.<br>b) Shortage of transport.<br>c) Carbide and coke. |
| ACQUOILA No. 3 | S.A.E. | 14.0 | Dec. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| FARFA No. 2 | S.A.E. | 6.0 | Dec. '45 | a) Up to revised schedule.<br>b) Lack of materials and coordinat<br>c) None. |
| MORINO | S.A.E. | 6.0 | Dec. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| PESCARA III No. 2 | S.A.E. | 10.0 | Dec. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| VENAFRANTELLO | U.A.E.E. | 8.0 | Dec. '45 | a) Up to schedule.<br>b) Previously crowded shop facil<br>c) None now. |

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LIST OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| Company | Name plate size of unit under repair kW | Expected Date of Completion | REMARKS<br>a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| C.E.A. | 8.0 | Sept. '45 | a) Slow.<br>b) Cartiage from Terni late. |
| [illegible] | 24.0 | Nov. '45 | a) Slow.<br>b) Shortage of transport.<br>c) None. |
| [illegible].E. | 10.0 | Nov. '45 | a) Up to revised schedule.<br>b) Shortage of transport.<br>c) Carbide and coke. |
| [illegible].E. | 14.0 | Dec. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| [illegible].E. | 6.0 | Dec. '45 | a) Up to revised schedule.<br>b) Lack of materials and coordination of transport.<br>c) None. |
| [illegible].E. | 6.0 | Dec. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| [illegible].E. | 10.0 | Dec. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| [illegible].E.S. | 8.0 | Dec. '45 | a) Up to schedule.<br>b) Previously crowded shop facilities.<br>c) Done now. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

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DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| Name of Station and Number of unit | Company | Name plate size of unit under repair kw | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) |
|---|---|---|---|---|
| PESCARA IV | S.M.E. | 8.2 | Jan. '46 | a) Up to revised schedule.<br>b) Transportation of damaged parts.<br>c) None. |
| ANVERSA | FF.SS. | 10.0 | Jan. '46 | a) Slow.<br>b) Shortage of transport.<br>c) None. |
| LIVORNO | VALTARO | 11.0 | Not yet accurately determined | a) Up to revised schedule.<br>b) Lack of transport and boilers repa<br>c) Cement, refractory trucks. |
| BUSSI SUL TIRINO II | Soc.naz.Chimica | 1.0 | Not yet accurately determined | a) Dismantling alternator and rebuil<br>b) No priority for new castings.<br>c) - |
| PESCARA II No. 1 | S.M.E. | 6.0 | Not yet accurately determined | a) Dismantling of plant begun.<br>b) Building completely demolished.<br>c) - |
| PESCARA II No. 2 | S.M.E. | 6.0 | Not yet accurately determined | a) Dismantling of plant begun.<br>b) Building completely demolished.<br>c) - |
| LETE | S.M.E. | 5.2 | Not yet accurately determined | Unit transferred from MATESE I. |
| | | | | |

Declassified E.O. 12356 Section 3.3/NND No. 785019

PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| pany | Name plate size of unit under repair MW | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| .E. | 8.2 | Jan. '46 | a) Up to revised schedule.<br>b) Transportation of damaged parts.<br>c) None. |
| .S. | 10.0 | Jan. '46 | a) Slow.<br>b) Shortage of transport.<br>c) None. |
| AAW | 11.0 | Not yet accurately determined | a) Up to revised schedule.<br>b) Lack of transport and boilers repairs.<br>c) Cement, refractory trucks. |
| .Chimica | 1.0 | Not yet accurately determined | a) Dismantling alternator and rebuilding Power house.<br>b) No priority for new castings.<br>c) - |
| .E. | 6.0 | Not yet accurately determined | a) Dismantling of plant begun.<br>b) Building completely demolished.<br>c) - |
| .E. | 6.0 | Not yet accurately determined | a) Dismantling of plant begun.<br>b) Building completely demolished.<br>c) - |
| .E. | 5.2 | Not yet accurately determined | Unit transferred from MATESE I. |
| | | | |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM

| Name of line | Company | Voltage of line KV | Expected Date of Completion | Remarks a) Progress - b) Cause of delay - c) Rat |
|---|---|---|---|---|
| GALLETO - LAURENTINA | A.C.E.A. | 150 | | Completed. |
| CECCANO - FONTINA | S.A.E. | 60 | | Completed. |
| PERUGIA - PALICALE | U.M.E.S. | 30 | | Completed. |
| CENTOCELLE - PRENESTINO | A.C.E.A. | 30 | | Completed. |
| TERNI - TOR DI QUINTO (red circuit) | S.A.E. | 60 | | Completed. |
| TERNI - TIBURTINO (white circuit) | S.A.E. | 60 | | Completed. |
| TAVARNUZZE - EMPOLI | VALDARNO | 30 | | Completed. |
| ORTE - GIUNCHINO | FF.SS. | 120 | | Completed. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM.

| Company | Voltage of Line KV | Expected Date of Completion | Remarks a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| P.C.E.A. | 150 | | Completed. |
| S.R.E. | 60 | | Completed. |
| U.A.E.S. | 30 | | Completed. |
| A.C.E.A. | 30 | | Completed. |
| S.H.E. | 60 | | Completed. |
| S.H.E. | 60 | | Completed. |
| VALLEJO | 30 | | Completed. |
| P.G.& | 120 | | Completed. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

| Name of Line | Company | Voltage of Line KV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Material |
|---|---|---|---|---|
| ARRIVE.TO - FOGGIA | FF.SS. | 60 | | Completed. |
| CASELLE - SCALEA - [illegible]AGO | FF.SS. | 60 | | Completed. |
| SOLLINO - GHISI | TERNI | 120 | 15 May '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| LIVRENI - GRIZZANA | FF.SS. | 120 | 15 May '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| LIVORNO - PONTEDERA | VALDARNO | 30 | 15 May '45 | a) Completed 70 %.<br>b) Work started again. Delay caused by transport shortage.<br>c) None. |
| BRESCIA - PONTEDERA | VALDARNO | 30 | Unknown | a) Completed 70 %.<br>b) Temporarily suspended. No transport.<br>c) None. |
| CHIVILI - S.CROCE - PONTEDERA | VALDARNO | 30 | 20 May '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| S.ELLA ROCCA - CORTINO | VALDARNO | 60 | 25 May '45 | a) 6 towers to replace. 90 % wires to be repl<br>b) Mines to be cleared. Transport to be supp<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

S OF PROGRESS OF REPAIR TO TRANSMISSION SYSTEM. (Continued)

| mpany | Voltage of Line KV | Expected Date of Completion | REMARKS<br>a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| .SS. | 60 | | Completed. |
| SS. | 60 | | Completed. |
| WI | 120 | 15 May '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| SS. | 120 | 15 May '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| lwO | 30 | 15 May '45 | a) Completed 70 %.<br>b) Work started again. Delay caused by transportation shortage.<br>c) None. |
| lwO | 30 | Unknown | a) Completed 70 %.<br>b) Temporarily suspended. No transport.<br>c) None. |
| .wO | 30 | 20 May '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| wO | 60 | 25 May '45 | a) 6 towers to replace. 90 % wires to be replaced.<br>b) Lines to be cleared. Transport to be supplied.<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

| Name of Line | Company | Voltage of Line KV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) |
|---|---|---|---|---|
| TERNI - S.PAOLO | A.C.E.A. | 60 | 1 June '45 | a) Slow.<br>b) Lack of conductors.<br>c) Copper conductors. |
| TOR FIGNATTARA - ALBANO | S.R.E. | 60 | 1 July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| FOLIGNO - FALCONARA (cdd) | FF.SS. | 120 | 15 July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| FOLIGNO - FALCONARA (eve.) | FF.SS. | 120 | 15 July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| LARDERELLO - FONTICLNO | FF.S.. | 120 | 31 July '45 | Work to be contracted for. |
| CANTERNO - CINECITTA' | S.R.E. | 120 | 31 July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| ORTE - CITUSI | FF.SS. | 120 | 15 Aug. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| CITUSI - CANUCIA | FF.SS. | 120 | | Completed. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

| Company | Voltage of Line KV | Expected Date of Completion | REMARKS<br>a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| E.A. | 60 | 1 June '45 | a) Slow.<br>b) Lack of conductors.<br>c) Copper conductors. |
| E. | 60 | 1 July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| Co. | 120 | 15 July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| Co. | 120 | 15 July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| Co. | 120 | 31 July '45 | Work to be contracted for. |
| E. | 120 | 31 July '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| SS. | 120 | 15 Aug. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| SS. | 120 | | Completed. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

| Name of Line | Company | Voltage of Line KV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Rat |
|---|---|---|---|---|
| CARUCIA - FONTICINO | FF.SS. | 120 | 15 Aug. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| FONTICINO - RIFREDI | FF.SS. | 120 | 15 Aug. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| PRENESTINA - AVERSA | FF.SS. | 60 | 30 Sept. '45 | Work to be contracted for. |
| MORLUPO - CAMPINO | S.R.E. | 150 | 1 Oct. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| LANDRIANO - CASCINA | FF.SS. | 120 | 15 Nov. '45 | Work to be contracted for. |
| CASCINA - S.ROMANO | FF.SS. | 120 | 15 Nov. '45 | Work to be contracted for. |
| COTILIA - PESCARA III | TIBER | 150 | January 1946 | a) Up to schedule.<br>b) None.<br>c) None. |
| FONTICINO - RICCIONE | FF.SS. | 120 | Unknown | Work to be contracted for. |
| ARCHI - FRATTAMAGGIORE | S.M.E. | 150 | Unknown | |

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DETAILS OF PROGRESS OF ROADS TO TRANSMISSION SITES (Continued)

| | Voltage of line KV | Expected date of completion | Remarks<br>a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| | 120 | 15 Aug. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| | 120 | 15 Aug. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| | 60 | 30 Sept. '45 | Work to be contracted for. |
| | 150 | 1 Oct. '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| | 120 | 15 Nov. '45 | Work to be contracted for. |
| | 120 | 15 Nov. '45 | Work to be contracted for. |
| | 150 | January 1946 | a) Up to schedule.<br>b) None.<br>c) None. |
| | 170 | Unknown | Work to be contracted for. |
| | 150 | Unknown | |

Declassified E.O. 12356 Section 3.3/NND No. 785019

Tel. 489.761
Ext. 317

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

Bol. Laffer

WAL/ms

Reference : 158/PWU

13th April 1945

Subject : Monthly Electrical Report.

To : Distribution list below.

1. Reference attached Electrical Report for the month of March. Your attention is drawn to the revised form which has been adopted in order to give quicker access to the information which it is thought may be required.

2. This Division will be pleased to supply any additional information which may be desired from time to time.

3. As the report is possibly being circulated to services who may have no interest in the subject matter and in order to conserve paper it is requested that the form below be completed and returned if future reports are wanted.

For the Chief Commissioner

W.A. LAFFER
Lieut-Colonel
Chief Elec. Div.

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O.I.T. - G-2 AFHQ C.M.F. Att.Maj.Corvin

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To : PUBLIC WORKS AND UTILITIES SUB-COMMISSION, HQ AC, APO 394
(Attention Lieut-Colonel W.A. Lapper)

Please send ... copies of the Electrical Report required

2. This Division will be pleased to supply any additional information which may be desired from time to time.

3. As the report is possibly being circulated to services who may have no interest in the subject matter and in order to conserve paper it is requested that the form below be completed and returned if future reports are wanted.

For the Chief Commissioner

W.A. LAPPER
Lieut-Colonel
Chief Elec. Div.

Distribution:

C.E.-AFHQ
Dir.Eng.Prod.& Stores, AFHQ
C.E. - District 1
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VENEZIA REGION
D. . - AFHQ
C.E. - 15 Army Group
O.I.T. - G-2 AFHQ C.M.F. Att.Maj.Corvin

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To : PUBLIC WORKS AND UTILITIES SUB-COMMISSION, HQ AC, APO 394
(Attention Lieut-Colonel W.A. Lapper)

Please send _____ copies of the Electrical Report adressed to _____ each month.

_____

_____

(Where no request is received the report will be discontinued).



Declassified E.O. 12356 Section 3.3/NND No. 785019

Tel. 489.031
Dat . 317

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

WAL/ms

Electrical Division

Report on Progress of Restoration of Electrical Plant and Transmission System in Italy

Month of March 1945

I N D E X


Page No. 1 - General data.

Page No. 2 - Summary of progress during March.

Pages No. 3 - 6 - Details of progress of repairs to generating plants and associated equipment.

Pages No. 7 - 9 - Details of progress of repairs to transmission system.

Page No. 10 - Six month estimate of restoration of generating facilities.

Pages No. 11 - 12 - Maps showing area of Southern and Central Italy.


E X P L A N A T I O N

1) - The Electrical Division Monthly Report is now published in new form. It covers the rehabilitation of electricity supplies for Southern and Central Italy with provision for Northern Italy.

2) - The Advisory Committees on Electric Power constituted of prominent officials connected with the electricity supply industry have fixed the areas of Sardinia, Sicily, Southern Italy and Central Italy. These areas are mainly boundaries of electric companies and will be used in all reports. Maps are attached to this report showing the Southern and Central areas.

3) - As the output of the hydro electric plants is, in many cases, affected by rainfall the nameplate or maximum capacity of the generating unit, except where otherwise stated, has been used. Figures for generating capacity are in megawatts (kw) i.e. thousands of kilowatts and length of transmission lines in kilo

Declassified E.O. 12356 Section 3.3/NND No. 785019

Month of March 1945

INDEX


Page No. 1 - General data.

Page No. 2 - Summary of progress during March.

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Page No. 10 - Six month estimate of restoration of generating facilities.

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EXPLANATION

1) - The Electrical Division Monthly Report is now published in new form. It covers the rehabilitation of electricity supplies for Southern and Central Italy with provision for Northern Italy.

2) - The Advisory Committees on Electric Power constituted of prominent officials connected with the electricity supply industry have fixed the areas of Sardinia, Sicily, Southern Italy and Central Italy. These areas are mainly boundaries of electric companies and will be used in all reports. Maps are attached to this report showing the Southern and Central areas.

3) - As the output of the hydro electric plants is, in many cases, affected by rainfall the nameplate or maximum capacity of the generating unit, except where otherwise stated, has been used. Figures for generating capacity are in megawatts (MW) i.e. thousands of kilowatts and length of transmission line in kilometers (Km.)

4) - Only generating plants of 1.0 MW and over are included in the progress details of this report. The large number of smaller plants under repair are not usually connected to the Grid System, their energy being available only to the locality in which they are situated.

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for W.H. LAFFER
Lieut-Colonel,
Chief Elec. Div.


Declassified E.O. 12356 Section 3.3/NND No. 785019

PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

GENERAL DATA

Position at 31 March 1945

| No. | | | South Italy | Central Italy | North Italy |
|---|---|---|---|---|---|
| 1 | Nameplate capacity of generating plant restored to service during March 1945 | kW | 0.0 | 12.25 | - |
| 2 | Output capacity expected from above plant during April 1945 | kW | 0.0 | 12.25 | - |
| 3 | Maximum load carried to date | kW | 173.5 | 111.4 | - |
| 4 | Present average weekly units being generated | kWh x $10^6$ | 19.5 | 17.6 | - |
| 5 | System load factor | % | 75 | 80 | - |
| 6 | Percentage of units generated by hydro plants | % | 95 | 85 | - |
| 7 | Length of transmission | | | | |

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| No. | | | [illegible] Italy | [illegible] Italy | [illegible] Italy |
|---|---|---|---|---|---|
| 1 | Nameplate capacity of generating plant restored to service during March 1945 | MW | 0.0 | 12.25 | - |
| 2 | Output capacity expected from above plant during April 1945 | MW | 0.0 | 12.25 | - |
| 3 | Maximum load carried to date | MW | 173.5 | 111.4 | - |
| 4 | Present average weekly units being generated | MWh.$10^6$ | 19.5 | 17.6 | - |
| 5 | System load factor | % | 75 | 80 | - |
| 6 | Percentage of units generated by hydro plants | % | 95 | 85 | - |
| 7 | Length of transmission line restored in service during March 1945 (30 KV and above) | Km. | 15 | 109 | - |
| 8 | Approximate number of civilian labour directly engaged on Electrical Rehabilitation work | No. | 940 | 1113,700 | - |



Declassified E.O. 12356 Section 3.3/NND No. 785019

PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

SUMMARY OF PROGRESS DURING MARCH

GENERATING STATIONS

| No. | | | South Italy | Central Italy | North Italy |
|---|---|---|---|---|---|
| 1 | Nameplate capacity of Generating Stations 31 December 1941 | KW | 473.1 | 879.7 | 4,683.3 |
| 2 | Nameplate capacity available at time of occupation | KW | 172.4 | 105.5 | - |
| 3 | Actual output available at time of occupation | KW | 111.8 | 51.8 | - |
| 4 | Nameplate capacity available at 31 March 1945 | KW | 276.4 | 223.2 | - |
| 5 | Actual output available at 31 March 1945 | KW | 174.7 | 164.3 | - |

TRANSMISSION SYSTEM

| No. | (30 KV and above) | Km. | Km. | Km. |
|---|---|---|---|---|
| 1 | Length of transmission line in operation 31 December 1941 | 4,493 | 9,409 | 25,000 estimated |

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| | | | | | |
|---|---|---|---|---|---|
| | Generating Stations<br>31 December 1941 | MW | 473.1 | 879.7 | 4,683.3 |
| 2 | Nameplate capacity available at time of occupation | MW | 172.4 | 105.5 | - |
| 3 | Actual output available at time of occupation | MW | 111.8 | 51.8 | - |
| 4 | Nameplate capacity available at 31 March 1945 | MW | 276.4 | 223.2 | - |
| 5 | Actual output available at 31 March 1945 | MW | 174.7 | 164.3 | - |

TRANSMISSION SYSTEM

| No. | (30 KV and above) | Km. | Km. | Km. |
|---|---|---|---|---|
| 1 | Length of transmission line in operation 31 December 1944 | 4,493 | 9,409 | 25,000 estimated |
| 2 | Length of transmission line available at time of occupation | 1,393 | 829 | - |
| 3 | Length of transmission line in operation at 31 March 1945 | 3,196 | 8,932 | - |

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DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT

| Name of Station and Number of unit | Company | Name plate size of unit under repair kW | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) |
|---|---|---|---|---|
| ACQUOLA No. 2 | S.A.E. | 4.0 | April '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| AVISTICO No. 1 | S.A.E. | 4.2 | May '45 | a) Up to revised schedule.<br>b) Fabrication difficulties penstock<br>c) None. |
| CELIANO No. 2 | S.A.E. | 5.5 | May '45 | a) Slow.<br>b) Coils late from Later Co.<br>c) None. |
| GALLETO No. 3 | TERNI | 34.4 | April '45 | a) Slow.<br>b) None.<br>c) None. |
| LIRA No. 2 | VALLANO | 1.5 | April '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| PIAN DELLA ROCCA | VALDARNO | 11.0 | April '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| CROSA I No. 1 | U.G.E.S. | 8.0 | May '45 | a) Up to revised schedule.<br>b) Lack of foundry and shop facili<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019



S OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT

| pany | Name plate size of unit under repair kw | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| n.E. | 4.0 | April '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| .E. | 4.2 | May '45 | a) Up to revised schedule.<br>b) Fabrication difficulties penstock plates.<br>c) None. |
| n.E. | 5.5 | May '45 | a) Slow.<br>b) Coils late from Kato Co.<br>c) none. |
| KII | 34.4 | April '45 | a) Slow.<br>b) None.<br>c) None. |
| JJnO | 1.5 | April '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| JnnO | 11.0 | April '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| .E.S. | 8.0 | May '45 | a) Up to revised schedule.<br>b) Lack of foundry and shop facilities.<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| Name of Station and Number of unit | Company | Name plate size of unit under repair MW | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - |
|---|---|---|---|---|
| CASTELLANO | U.T.E.C. | 2.25 | June '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| CASTEL MAIMBA | A.C.E.A. | 5.0 | June '45 | a) Up to revised schedule.<br>b) Lack of shop facilities.<br>c) None. |
| FONTECUBA | S.E.E. | 3.8 | June '45 | a) Up to schedule.<br>b) None.<br>c) Steel and Cement. |
| GALILEO No. 4 | TERNI | 34.4 | June '45 | a) Up to schedule.<br>b) None.<br>c) Rubber packing. |
| FORTE PUBLE | S.I.E. | 3.4 | June '45 | a) Slow.<br>b) Lack of steel shapes for intake<br>c) Steel. |
| LA PIELA | A.C.E.A. | 3.0 | July '45 | a) Slow.<br>b) Insufficient shop facilities.<br>c) None. |
| VENAS AL TELLO | U.T.E.C. | 3.0 | July '45 | a) Up to schedule.<br>b) None.<br>c) Insulating tape and solder. |

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Declassified E.O. 12356 Section 3.3/NND No. 785019



RELATING TO GENERATING UNITS AND ASSOCIATED EQUIPMENT (Continued)

| | Name plate size of unit under repair KW | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - Materials required. |
|---|---|---|---|
| | 2.25 | June '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| | 5.0 | June '45 | a) Up to revised schedule.<br>b) Lack of shop facilities.<br>c) None. |
| | 3.8 | June '45 | a) Up to schedule.<br>b) None.<br>c) Steel and Cement. |
| | 34.4 | June '45 | a) Up to schedule.<br>b) None.<br>c) Rubber packing. |
| | 3.4 | June '45 | a) Slow.<br>b) Lack of steel shapes for intake gates.<br>c) Steel. |
| | 3.0 | July '45 | a) Slow.<br>b) Insufficient shop facilities.<br>c) None. |
| | 3.0 | July '45 | a) Up to schedule.<br>b) None.<br>c) Insulating tape and solder. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continue

| Name of Station and Number of unit | Company | Name plate size of unit under repair kW | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - |
|---|---|---|---|---|
| GALLETO No. 2 | TEN.I | 34.4 | August '45 | a) Up to schedule.<br>b) None.<br>c) Rubber packing materials. |
| SALTARO | A.C.E.A. | 8.0 | September '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| ANVERSA | FF.CC. | 10.0 | October '45 | a) Slow.<br>b) Shortage of transport. Now unde<br>c) None. |
| COTILLA | TEN.II | 24.0 | November '45 | a) Slow.<br>b) Shortage of transport.<br>c) None. |
| FERRARA III No. 1 | S.A.E. | 10.0 | November '45 | a) Up to revised schedule.<br>b) Shortage of transport.<br>c) Carbide and coke. |
| ACQUILA No. 3 | S.A.E. | 14.0 | December '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| FARFA No. 2 | S.A.E. | 6.0 | December '45 | a) Up to revised schedule.<br>b) Lack of materials and coordina<br>c) None. |
| FERRARA III | S.A.E. | 1.0 | December '45 | a) Up to schedule.<br>b) None<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT (Continued)

| | Name plate size of unit under repair kw | Expected Date of Completion | REMARKS<br>a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| I | 34.4 | August '45 | a) Up to schedule.<br>b) None.<br>c) Rubber packing materials. |
| ... | 8.0 | September '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| ...o. | 10.0 | October '45 | a) Slow.<br>b) Shortage of transport. Now under control.<br>c) None. |
| II | 24.0 | November '45 | a) Slow.<br>b) Shortage of transport.<br>c) None. |
| ...E. | 10.0 | November '45 | a) Up to revised schedule.<br>b) Shortage of transport.<br>c) Carbide and coke. |
| ...E. | 14.0 | December '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| ...E. | 6.0 | December '45 | a) Up to revised schedule.<br>b) Lack of materials and coordination of transport.<br>c) None. |
| ...E. | 1.0 | December '45 | a) Up to schedule.<br>b) None<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILED OF PROGRESS OF REPAIRS TO OPERATING UNITS AND ASSOCIATED EQUIPMENT (Continued

| Name of Station and Number of unit | Company | Name plate size of unit under repair kw | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - |
|---|---|---|---|---|
| LOVATO | S.A.E. | 6.0 | December '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| PESCARA III N. 2 | S.A.E. | 10.0 | December '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| VENEZIANELLO | U.T.E.S. | 8.0 | December '45 | a) Up to schedule.<br>b) Previously crowded shop facili<br>c) None note. |
| PESCARA IV | S.A.E. | 8.2 | January '46 | a) Up to revised schedule.<br>b) Transportation of damaged part<br>c) None. |
| LIVORNO | VALDARNO | 11.0 | Not yet accurately determined | Repairs started 20 March 1945. |
| CHIOTTI SULTANO II | Soc. Naz. Chimica | 1.0 | Not yet accurately determined | a) Dismantling alternator and rot<br>b) No priority for new castings.<br>c) - |
| PESCARA II No. 1 | S.A.E. | 6.0 | Not yet accurately determined | a) Dismantling of plant begun.<br>b) Building completely demolished<br>c) - |
| PESCARA II No. 2 | S.A.E. | 6.0 | Not yet accurately determined | a) Dismantling of plant begun.<br>b) Building completely demolished<br>c) - |

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Declassified E.O. 12356 Section 3.3/NND No. 785019

...o OF ENGINES OF ...ES TO BE ...TED AT PLANTS ARE ASSOCIATED WITH U.S.A. (Continued)

| ...mpany | Name plate size of unit under repair h.p. | Expected Date of Completion | Remarks<br>a) Progress - b) Cause of delay - c) Materials required |
|---|---|---|---|
| ...h.E. | 6.0 | December '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| ...l.E. | 10.0 | December '45 | a) Up to schedule.<br>b) None.<br>c) None. |
| ...r...E. | 8.0 | December '45 | a) Up to schedule.<br>b) Previously crowded shop facilities.<br>c) None now. |
| ...l.E. | 8.2 | January '46 | a) Up to revised schedule.<br>b) Transportation of damaged parts.<br>c) None. |
| ...ANO | 11.0 | Not yet accurately determined | Repairs started 20 March 1945. |
| ...z. Chimica | 1.0 | Not yet accurately determined | a) Dismantling alternator and rebuilding fitter house.<br>b) No priority for new castings.<br>c) - |
| ...E. | 6.0 | Not yet accurately determined | a) Dismantling of plant begun.<br>b) Building completely demolished.<br>c) - |
| ...E. | 6.0 | Not yet accurately determined | a) Dismantling of plant begun.<br>b) Building completely demolished.<br>c) - |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF WORK TO TRANSMISSION SYSTEM

| Name of line | Company | Voltage of line kV | Expected date of Completion | REMARKS a) Progress - b) Cause of delay - |
|---|---|---|---|---|
| CARATTO - LAURENTINA | N.C.E.n.a. | 150 | 15 April | a) Up to revised schedule.<br>b) Construction equipment taken e<br>c) None. |
| CECCANO - FONTINIA | S.i.e.e. | 60 | 15 April | a) Up to revised schedule.<br>b) Previously slowed by insuffici<br>c) None. |
| FERENTINO - PATRICIA | U.i.e.e. | 30 | 25 April | a) Up to schedule.<br>b) None.<br>c) None. |
| TERNI - TORRE QUINTO (red circuit) | S.i.E.E. | 60 | 30 April | a) Up to schedule.<br>b) None.<br>c) None. |
| TERNI - TORRE QUINTO (white circuit) | SIP.S. | 60 | 30 April | a) Up to schedule.<br>b) None.<br>c) None. |
| FOLIGNO - GIUBILEI | TERNI | 120 | 15 May | a) Work started on 7 April.<br>b) None<br>c) None |
| RIPABELLI - GUARCINA | FF.SS. | 120 | 15 May | a) Up to schedule.<br>b) None.<br>c) None. |

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Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM

| Company | Voltage of Line KV | Expected Date of Completion | Remarks<br>a) Progress - b) Cause of Delay - c) Materials required. |
|---|---|---|---|
| [illegible].E.A. | 150 | 15 April | a) Up to revised schedule.<br>b) Construction equipment taken elsewhere.<br>c) None. |
| [illegible] | 60 | 15 April | a) Up to revised schedule.<br>b) Previously slowed by insufficient transport.<br>c) None. |
| [illegible] | 30 | 25 April | a) Up to schedule.<br>b) None.<br>c) None. |
| [illegible] | 60 | 30 April | a) Up to schedule.<br>b) None.<br>c) None. |
| [illegible] | 60 | 30 April | a) Up to schedule.<br>b) None.<br>c) None. |
| [illegible] | 120 | 15 May | a) Work started on 7 April.<br>b) None<br>c) None |
| [illegible] | 120 | 15 May | a) Up to schedule.<br>b) None.<br>c) None. |

Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

| Name of Line | Company | Voltage of Line kV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay |
|---|---|---|---|---|
| TERNI - S.FIORO | A.C.E.A. | 60 | 1 June | a) Up to schedule.<br>b) None.<br>c) None. |
| FOLIGNO - FALCONARA (Nord) | FF.SS. | 120 | 15 July | a) Up to schedule.<br>b) None.<br>c) None. |
| FOLIGNO - FALCONARA (Sud) | FF.SS. | 120 | 15 July | a) Up to schedule.<br>b) None.<br>c) None. |
| TARQUINIA - MONTICINO | FF.SS. | 120 | 31 July | a) Work will start on 16 April.<br>b) None.<br>c) None. |
| LA TOLFA - CIVITAVECCHIA | S.E.S. | 150 | 31 July | a) Up to schedule.<br>b) None<br>c) None |
| ORTE - MONTICINO - MAGLIANO (Nord) | FF.SS. | 120 | 15 August | a) Up to schedule.<br>b) None<br>c) None |
| ORTE - MONTICINO - MAGLIANO (Sud) | FF.SS. | 120 | 15 August | a) Up to schedule.<br>b) None.<br>c) None. |

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...S OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

| ...mpany | Voltage of line kV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required. |
|---|---|---|---|
| ...C.E.A. | 60 | 1 June | a) Up to schedule.<br>b) None.<br>c) None. |
| FF.SS. | 120 | 15 July | a) Up to schedule.<br>b) None.<br>c) None. |
| FF.SS. | 120 | 15 July | a) Up to schedule.<br>b) None.<br>c) None. |
| FF.SS. | 120 | 31 July | a) Work will start on 18 April.<br>b) None.<br>c) None. |
| S.H.E. | 150 | 31 July | a) Up to schedule.<br>b) None<br>c) None |
| FF.SS. | 120 | 15 August | a) Up to schedule.<br>b) None<br>c) None |
| FF.SS. | 120 | 15 August | a) Up to schedule.<br>b) None.<br>c) None. |

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DETAILS OF PROGRESS OF RELATIONS TO TRANSMISSION SYSTEM (Continued)

| Name of Line | Company | Voltage of line KV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Ma |
|---|---|---|---|---|
| FRISTRIA - ANVERSA | FF.SS. | 60 | 30 September | a) Contract bids to be opened 10 April. |
| LARDERELLO - CASCINA - SARCIANO | FF.SS. | 120 | 15 November | a) Work will start on 18 April.<br>b) None.<br>c) None. |
| COTILIA - PESCARA III | TEMI | 150 | January 1946 | a) Up to schedule.<br>b) None.<br>c) None. |
| PONTICINO - RICCIONE | FF.SS. | 120 | Unknown | a) Work to be contracted for. |
| ARGILI - FRATTAMAGGIORE | S.A.E. | 150 | Unknown | a) 10 % completed. |
| LIVORNO - PONTEDERA | VALDARNO | 30 | Unknown | a) Completed 70 %.<br>b) Temporarily suspended - No transport.<br>c) None. |
| PESCIA - PONTEDERA | VALDARNO | 30 | Unknown | a) Completed 70 %.<br>b) Temporarily suspended - No transport.<br>c) None. |
| TAVARNUZZE - EMPOLI | VALDARNO | 30 | 30 April '45 | a) Completed 20 %. |

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Declassified E.O. 12356 Section 3.3/NND No. 785019

DETAILS OF PROGRESS OF REL. ..S TO TRANSMISSION SYSTE. (Continued)

| Company | Voltage of line KV | Expected Date of Completion | REMARKS a) Progress - b) Cause of delay - c) Materials required |
|---|---|---|---|
| FF.SS. | 60 | 30 September | a) Contract bids to be opened 10 April. |
| FF.SS. | 120 | 15 November | a) Work will start on 18 April.<br>b) None.<br>c) None. |
| TARIL | 150 | January 1946 | a) Up to schedule.<br>b) None.<br>c) None. |
| FF.S.. | 120 | Unknown | a) Work to be contracted for. |
| S..E. | 150 | Unknown | a) 10 % completed. |
| VALDARNO | 30 | Unknown | a) Completed 70 %.<br>b) Temporarily suspended - No transport.<br>c) None. |
| VALDARNO | 30 | Unknown | a) Completed 70 %.<br>b) Temporarily suspended - No transport.<br>c) None. |
| VALDARNO | 30 | 30 April '45 | a) Completed 20 %. |

PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

SIX MONTH ESTIMATE OF RESTORATION OF GENERATING FACILITIES

(Acomplete Capacity)

| Name of Station and Number of unit | Company | YEAR 1945 | | | | | |
|---|---|---|---|---|---|---|---|
| | | April 30th KW | May 31st KW | June 30th KW | July 31st KW | Aug. 31st KW | Sept. 30th KW |
| ACQUORIA No. 2 | S.A.E. | 4.0 | | | | | |
| CENTALO No. 2 | " | | 5.5 | | | | |
| FONTECHIA | " | | | 3.8 | | | |
| FONTENUBE | " | | | 3.4 | | | |
| CASTELLANIELLA | A.C.E.A. | | | 5.0 | | | |
| RANIELLA | " | | | | 3.0 | | |
| SALISANO | " | | | | | | 8.0 |
| CASTELLANO | U.I.E.S. | | | 2.25 | | | |
| GARDSA | " | | 8.0 | | | | |
| VERGANTELLO | " | | | | 3.0 | | |
| GALLETO No. 3 | TERNI | 34.4 | | | | | |
| GALLETO No. 4 | " | | | 34.4 | | | |
| GALLETO No. 2 | " | | | | | 34.4 | |
| ILVA No. 2 | VALDARNO | 1.5 | | | | | |
| PIAN DELLA MOCCA No. 2 | " | 11.0 | | | | | |
| AVENTINA No. 1 | S.A.S. | | 4.2 | | | | |

Declassified E.O. 12356 Section 3.3/NND No. 785019

| Name of Station and Number of Unit | Company | April 30th MW | May 31st MW | June 30th MW | July 31st MW | Aug. 31st MW | Sept. 30th MW |
|---|---|---|---|---|---|---|---|
| ACQUOLA No. 2 | S.A.E. | 4.0 | | | | | |
| CERNAIA No. 2 | " | | 5.5 | | | | |
| FONTECURA | " | | | 3.8 | | | |
| FONTEFIDE | " | | | 3.4 | | | |
| CASTELLANZA | A.C.E.A. | | | 5.0 | | | |
| LAMBRO | " | | | | 3.0 | | |
| SALUGA | " | | | | | | 8.0 |
| CASTELLANO | U.I.E.S. | | | 2.25 | | | |
| GARDA | " | | 6.0 | | | | |
| TRIANTELLO | " | | | | 3.0 | | |
| CALLEGO No. 3 | TELVI | 34.4 | | | | | |
| CALLEGO No. 4 | " | | | 34.4 | | | |
| CALLEGO No. 2 | " | | | | | 34.4 | |
| LODA No. 2 | VALTELLINO | 1.5 | | | | | |
| PIANTELLA NOCCA No. 2 | " | 11.0 | | | | | |
| [illegible] No. 3 | S.E.E. | | 4.2 | | | | |
| Monthly Increase | | 50.9 | 17.7 | 48.85 | 6.0 | 34.4 | 8.0 |



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# CENTRAL ITALY ELECTRICITY SCHEME

## ADVISORY COMMITTEE ON ELECTRIC POWER

### MAP OF CENTRAL ITALY AREA

1103

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# CENTRAL ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

MAP OF CENTRAL ITALY AREA






AC/OP/EL/9

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# SOUTHERN ITALY ELECTRICITY SCHEME

## ADVISORY COMMITTEE ON ELECTRIC POWER

## MAP OF SOUTHERN ITALY AREA

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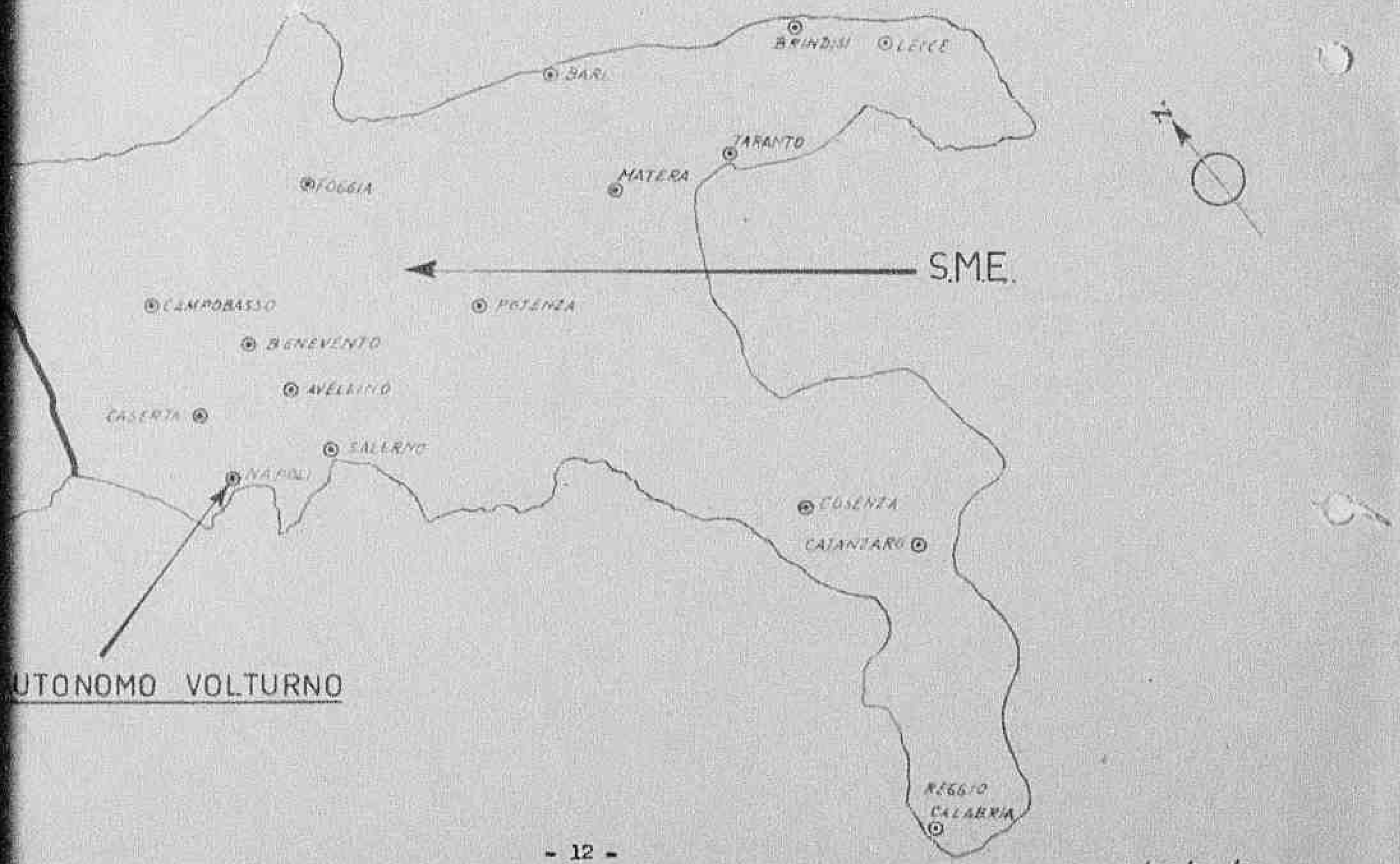
# SOUTHERN ITALY ELECTRICITY SCHEME

## ADVISORY COMMITTEE ON ELECTRIC POWER

## MAP OF SOUTHERN ITALY AREA




UTONOMO VOLTURNO

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

ELECTRICAL DIVISION

# RESTORATION OF ITALIAN ELECTRICAL PLANT AND TRANSMISSION SYSTEM

PROGRESS REPORT FOR MONTH OF FEBRUARY 1945

W.H. LAPPER LT.COL.
Chief Electrical Division

Declassified E.O. 12356 Section 3.3/NND No. 785019

RESTORATION OF ITALIAN ELECTRICAL PLANT AND TRANSMISSION SYSTEM

PROGRESS REPORT FOR MONTH OF FEBRUARY 1945

W.M. LAPPER LT.COL.
Chief Electrical Division

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Declassified E.O. 12356 Section 3.3/NND No. 785019

# CENTRAL ITALY

TABLE "A"

Installed generating capacity and present output of generating stations in operation on the grid system as of 28 February '45.

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| ACQUORIA | 57,300 | 3,500 | War damage. |
| ANCONA TH. | 4,240 | - | War damage. |
| ANCHIARI | 1,308 | - | War damage. |
| ANVERSA PRINCIPALE | 30,000 | - | War damage. |
| ARGI | 8,320 | 4,800 | Insufficient water. |
| ARLIA | 3,500 | - | Enemy hands. |
| AVENTINO | 9,600 | - | War damage. |
| BASTARDO TH. | 15,000 | - | War damage. |
| BOLOGNOLA (NON GRID) | 2,760 | 1,310 | Insufficient water. |
| BORGO (PIORACO) | 1,182 | - | No external line. |
| BUSSI SUL TIRINO 2 S. | 1,500 | - | War damage. |
| CANISTRO | New const. | - | War damage 12,960 KW. |
| CANTERNO | 10,000 | 5,000 | Insufficient water. |
| CARASSAI (NON GRID) | 1,048 | 470 @ | Canal in bad condition. |
| CASTELLANO | 6,720 | - | War damage. |
| CASTELMADAMA | 14,000 | - | War damage. |
| CASTELNUOVO GARFAGNANA | 7,200 | - | Enemy hands. |
| CASTELNUOVO SABBIONI TH. | 20,400 | - | War damage. |
| CASTELNUOVO VAL CECINA TH. | 48,000 | - | War damage. |

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| | | | |
|---|---|---|---|
| ANCONA TH. | 4,240 | - | War damage. |
| ANGHIARI | 1,308 | - | War damage. |
| ANVERSA PRINCIPALE | 30,000 | - | War damage. |
| ARCI | 8,320 | 4,800 | Insufficient water. |
| ARLIA | 3,500 | - | Enemy hands. |
| AVENTINO | 9,600 | - | War damage. |
| BASTARDO TH. | 15,000 | - | War damage. |
| BOLOGNOLA (NON GRID) | 2,760 | 1,310 | Insufficient water. |
| BORGO (PIORACO) | 1,182 | - | No external line. |
| BUSSI SUL TIRINO 2 S. | 1,500 | - | War damage. |
| CANISTRO | New const. | - | War damage 12,960 KW. |
| CANTERNO | 10,000 | 5,000 | Insufficient water. |
| CARASSAI (NON GRID) | 1,048 | 470 @ | Canal in bad condition. |
| CASTELLANO | 6,720 | - | War damage. |
| CASTELMADAMA | 14,000 | - | War damage. |
| CASTELNUOVO GARFAGNANA | 7,200 | - | Enemy hands. |
| CASTELNUOVO SABBIONI TH. | 20,400 | - | War damage. |
| CASTELNUOVO VAL CECINA TH. | 48,000 | - | War damage. |
| CEPRANO | 12,860 | 3,500 @ | 1 unit transferred. 1 burned out. |
| CERVARA | 9,000 | 6,900 | Aged machines. |
| COLLESTATTE | 9,000 | - | War damage. |
| COMUNACQUE | 9,120 | 5,700 | Insufficient water. |

@ ESTIMATED



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1.100

TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| CORFINO(PONTE COSI) | 4,780 | - | Enemy hands. |
| COTILLA | 54,720 | - | War damage. |
| DE CECCO | 1,800 | 550 @ | Water for 2 units. |
| FARFA 1 | 19,200 | - | War damage. |
| FARFA 2 | 9,000 | 4,000 | War damage. |
| FONTANA LIRI (CERASOLI) | 2,880 | - | War damage. |
| FONTECUPA | 4,800 | - | War damage. |
| FURLO | 2,820 | - | War damage. |
| GALLETO | 137,600 | 34,400 | War damage. |
| GALLICANO | 22,000 | - | War damage. |
| GEROSA SUPERIORE | 14,000 | - | War damage. |
| GIARDINETTO (LIMA) | 7,240 | - | War damage. |
| LAMA DEI PELIGNI | 1,680 | 840 | War damage. |
| LARDERELLO 1 TH. (NON GRID) | 6,900 | 2,800 | War damage. |
| LARDERELLO 2 TH. (NON GRID) | 72,000 | - | War damage. |
| LIVORNO TH. | 42,000 | - | War damage. |
| LIVORNO Portable (U.S.ARMY-NON GRID) | 1,600 | 1,600 | |
| MANDELA | 6,000 | - | War damage. |
| MINORE | 17,900 | - | War damage. |
| MOLINA ATERNO | 1,050 | - | War damage. |

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| | | | |
|---|---|---|---|
| COTILIA | 54,720 | - | War damage. |
| DE CECCO | 1,800 | 550 @ | Water for 2 units. |
| FARFA 1 | 19,200 | - | War damage. |
| FARFA 2 | 9,000 | 4,000 | War damage. |
| FONTANA LIRI (GIRASOLI) | 2,880 | - | War damage. |
| FONTECUPA | 4,800 | - | War damage. |
| FURLO | 2,820 | - | War damage. |
| GALLETO | 137,600 | 34,400 | War damage. |
| GALLICANO | 22,000 | - | War damage. |
| GEROSA SUPERIORE | 14,000 | - | War damage. |
| GIARDINETTO (LIMA) | 7,240 | - | War damage. |
| LAMA DEI PELIGNI | 1,680 | 840 | War damage. |
| LARDERELLO 1 TH. (NON GRID) | 6,900 | 2,800 | War damage. |
| LARDERELLO 2 TH. (NON GRID) | 72,000 | - | War damage. |
| LIVORNO TH. | 42,000 | - | War damage. |
| LIVORNO Portable (U.S.ARMY-NON GRID) | 1,600 | 1,600 | |
| MANDELL | 6,000 | - | War damage. |
| MARMORE | 17,900 | - | War damage. |
| MOLINA ATERNO | 1,050 | - | War damage. |
| MORINO 1 S. (UNES) | 1,080 | - | War damage. |
| MORINO 2 S. (UNES) | 1,666 | - | War damage. |
| MORINO (SPE) | 12,800 | - | War damage. |
| MORINO | 2,850 | - | War damage. |

@ ESTIMATED



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TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| MEZZ. MONTORO | 19,600 | 15,800 | Water limited by gallery size. |
| PAPIENO | 66,000 | - | War damage. |
| PAVIA | 12,800 | - | War damage. |
| PED.SO (NON GRID) | 4,500 | 3,650 | |
| PEL.G.N.I (SERELLE) | 2,000 | 1,000 | War damage. |
| PESC.RA 1 | 9,920 | - | War damage. |
| PESC.RA 2 | 11,520 | - | War damage. |
| PESC.RA 3 | 20,500 | - | War damage. |
| PESCARA 4 | 28,800 | - | War damage. |
| PETTORANO (GILIO) (NON GRID) | 4,000 | - | War damage. |
| PIAN.RUCCI (NON GRID) | 1,920 | 1,900 @ | |
| PIAN DELLA ROCCA (NON GRID) | 33,600 | 1,000 @ | War damage and insufficient water. |
| PIANICELLA | 1,870 | 1,600 | |
| PIETRAFITTA TH. | 16,300 | - | War damage. |
| PIOMBINO TH. | 6,960 | - | War damage. |
| POLVERIFICIO FONTANA LIRI | 1,850 | - | War damage. |
| PONTEPIETRA (S.GIOV.INC.) | 9,000 | - | War damage. |
| PORRINO 3 S. (SARDEGNA) | 7,100 | - | War damage. |
| PORTOFERR.IO TH. | 4,480 | - | War damage. |

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| | | | |
|---|---|---|---|
| NERA MONTORO | 19,600 | 15,800 | Water limited by gallery size. |
| PAPIGNO | 66,000 | - | War damage. |
| PAVIA | 12,800 | - | War damage. |
| PELSO (NON GRID) | 4,500 | 3,650 | |
| PELLEGRINI (SERELLE) | 2,000 | 1,000 | War damage. |
| PESCARA 1 | 9,920 | - | War damage. |
| PESCARA 2 | 11,520 | - | War damage. |
| PESCARA 3 | 20,500 | - | War damage. |
| PESCARA 4 | 28,800 | - | War damage. |
| PETTORANO (GIZIO) (NON GRID) | 4,000 | - | War damage. |
| PIANCUCCI (NON GRID) | 1,920 | 1,900 @ | |
| PIO DELLA ROCCA (NON GRID) | 33,600 | 1,000 @ | War damage and insufficient water. |
| PIANICELLA | 1,870 | 1,600 | |
| PIETRAFITTA TH. | 16,300 | - | War damage. |
| PIOMBINO TH. | 6,960 | - | War damage. |
| POLVERIFICIO PONTINIA LIRI | 1,850 | - | War damage. |
| PONTECORVO (S.GIOV.INC.) | 9,000 | - | War damage. |
| PORRINO 3 S. (SERTICCHI) | 7,100 | - | War damage. |
| PORTOVENERE TH. | 4,480 | - | War damage. |
| PRATOVECCHIO | 1,175 | - | War damage. |
| PRECI | 9,100 | - | War damage. |
| PROVVIDENZA | Now const. | - | Proposed ~~120,000~~ KW. |
| RIETI TH. (NON GRID) | 2,000 | 840 | Stand by only. |
| RIFREDI TH. | 7,000 | - | War damage. |

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TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity Kw | REMARKS Reason for LOSS in output |
|---|---|---|---|
| RIORDINO (FIBRENO) (NON GRID) | 3,400 | 1,400 @ | War damage. |
| ROCCHETTA | 3,400 | - | Enemy hands. |
| ROME TH. | 52,000 | 28,400 | Maint. & Repairs. |
| ROSIGNANO TH. | 9,344 | 3,000 @ | War damage. |
| SALISANO | 16,000 | - | War damage. |
| S.ELENA | 1,360 | 185 | War damage. |
| S.GLACOMO | New const. | - | Proposed 158,400 KW. |
| S.SAVINO (SRE) | 1,408 | 480 | |
| SCANELLE | 8,000 | 4,000 | Insufficient water. |
| SELVENA | 3,150 | 1,000 | War damage and low water. |
| SILLANO | 1,080 | - | Enemy hands. |
| SILLICO | 1,200 | - | Enemy hands. |
| SPERANDO | 12,660 | - | War damage. |
| SPOLETO (NON GRID) | 2,450 | 250 | |
| SUBLACO | 7,760 | 3,200 | War damage. |
| TELLI | 30,000 | - | Enemy hands. |
| TERNI JUTE | 1,100 | 900 | |
| TERNI MUNIC. | 2,800 | - | War damage. |
| TERNI PLATE | 1,500 | - | Generator burned out. |
| TERNI STEEL | 600 | 450 | |

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| | | | |
|---|---|---|---|
| RIORDINO (FIBRENO) (NON GRID) | 3,400 | 1,400 @ | War damage. |
| ROCCHETTA | 3,400 | - | Enemy hands. |
| ROME TH. | 52,000 | 28,400 | Maint. & Repairs. |
| ROSICELLNO TH. | 9,344 | 3,000 @ | War damage. |
| SALISANO | 16,000 | - | War damage. |
| S.ELENA | 1,360 | 185 | War damage. |
| S.GIACOMO | New const. | - | Proposed 158,400 KW. |
| S.SAVINO (SNS) | 1,408 | 480 | |
| SCALELLE | 8,000 | 4,000 | Insufficient water. |
| SELVENA | 3,150 | 1,000 | War damage and low water. |
| SILLANO | 1,080 | - | Enemy hands. |
| SILLICO | 1,200 | - | Enemy hands. |
| SPERANDO | 12,680 | - | War damage. |
| SPOLETO (NON GRID) | 2,450 | 250 | |
| SUBLACO | 7,760 | 3,200 | War damage. |
| TELLA | 30,000 | - | Enemy hands. |
| TERNI JUTE | 1,100 | 900 | |
| TERNI MUNIC. | 2,800 | - | War damage. |
| TERNI PLATE | 1,500 | - | Generator burned out. |
| TERNI STEEL | 600 | 450 | |
| VEN.MARTELLO | 15,520 | - | War damage. |
| VASE. | 2,640 | 2,200 | |
| VELCI | 3,520 | 2,200 | |
| ZECCA 1 | 1,775 | - | War damage. |
| ZECCA 2 | 1,200 | - | War damage. |
| SMALL PLANTS | 64,306 | 11,280 | 53 Plants operating. |

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TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| MOLISE | | | |
| CAPO VOLTURNO | 20,000 | - | War damage. |
| LETE (PRATA SANNITA) | 9,400 | - | War damage. |
| PONTEROTTO | 2,240 | - | War damage. |
| S.MASSIMO | 5,000 | - | War damage. |
| S.SPIRITO | 1,250 | - | War damage. |
| SOLARA | 1,070 | - | War damage. |
| VALLEOUPA | 1,000 | - | War damage. |
| TOTALS ..... | 1,300,572 | 160,105 | |



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| | | | |
|---|---|---|---|
| CAPO VOLTURNO | 20,000 | - | War damage. |
| LETE (PRATA SANNITA) | 9,400 | - | War damage. |
| PONTEROTTO | 2,240 | - | War damage. |
| S.MASSIMO | 5,000 | - | War damage. |
| S.SPIRITO | 1,250 | - | War damage. |
| SOLARA | 1,070 | - | War damage. |
| VALLECUPA | 1,000 | - | War damage. |
| TOTALS ..... | 1,300,572 | 160,105 | |

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# CENTRAL ITALY

TABLE "B"

Schedule of Generating Capacity in service and being repaired 28 Feb.1945

| Name of Station | Plant in operation 28 Feb.45 | YEAR 1945 | | | | | |
|---|---|---|---|---|---|---|---|
| | | 31 March | 30 April | 31 May | 30 June | 31 July | 31 Aug. |
| ACQUORLA | 3,500 | | 4,000 | | | | |
| ARCI | 8,320 | | | | | | |
| BOLOGNOLA | 2,760 | | | | | | |
| CANTERNO | 10,000 | | | | | | |
| CARASSAI | 720 | | | | | | |
| CERRANO | 3,500 | | 5,500 | | | | |
| CERVARA | 9,000 | | | | | | |
| CORNIACQUE | 9,120 | | - 4,560 | | | | |
| DE CECCO | 600 | | | | | | |
| FARFA 2 | 4,500 | | | | | | |
| GALLETO | 34,400 | | 34,400 | | 34,400 | | 34,400 |
| LAM. DEI PELIGNI | 840 | | | | | | |
| LARDERELLO 1 | 3,900 | | | | | | |
| LEGHORN (U.S.A.) | 1,600 | | | | | | |
| NERA MONTORO | 19,600 | | | | | | |
| PERSO | 4,500 | | | | | | |
| PIACALLI | 1,000 | | | | | | |
| PIANARUCCI | 1,920 | | | | | | |
| PIAN DELLA BOCCA | 14,000 | 11,000 | | | | | |
| PIANICELLA | 1,870 | | | | | | |
| RIETI TH. | 1,000 | | | | | | |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ARCI | 8,320 | | | | | | |
| BOLOGNOLA | 2,760 | | | | | | |
| CANTERNO | 10,000 | | | | | | |
| CARASSAI | 720 | | | | | | |
| CZPRANO | 3,500 | | 5,500 | | | | |
| CERVARA | 9,000 | | | | | | |
| COMUNACQUA | 9,120 | | - 4,560 | | | | |
| DE CROCO | 600 | | | | | | |
| FaRFa 2 | 4,500 | | | | | | |
| GALLETO | 34,400 | | 34,400 | | 34,400 | | 34,400 |
| LAGO DEI PELIGNI | 840 | | | | | | |
| LAPIEPELLO 1 | 3,900 | | | | | | |
| LEGHORN (U.S.A.) | 1,600 | | | | | | |
| NERA MONTORO | 19,600 | | | | | | |
| PEDASO | 4,500 | | | | | | |
| PELAGALLI | 1,000 | | | | | | |
| PIANARUCCI | 1,920 | | | | | | |
| PIAN DELLA BOCCA | 14,000 | 11,000 | | | | | |
| PIANICELLA | 1,870 | | | | | | |
| RIETI TH. | 1,000 | | | | | | |
| RIOBERNO | 1,400 | | | | | | |
| ROME THERMAL | 33,000 | | | | | | |
| ROSIGNANO | 6,000 | | | | | | |
| S.ELENA | 400 | | | | | | |
| S.S.VINC (SRE) | 800 | | | 1095 | | | |



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TABLE "B" (Continued)

| Name of Station | Plant in operation 28 Feb.45 | YEAR 1945 | | | | | |
|---|---|---|---|---|---|---|---|
| | | 31 March | 30 April | 31 May | 30 June | 31 July | 31 Aug. |
| SCALELLE | 4,000 | | | | | | |
| SELVENA | 1,575 | | | | | | |
| SPOLETO | 350 | | | | | | |
| SUBLACO | 3,880 | | | | | | |
| TARQUINIA | 150 | | | | | | |
| TERNI JUTE | 1,100 | | | | | | |
| TERNI STEEL | 600 | | | | | | |
| VESTA | 2,640 | | | | | | |
| VULCI | 3,520 | | | | | | |
| SMALL PLANTS | 15,551 | | | | | | |
| ADDOLORATA | | 560 | | | | | |
| AVENTINO | | | 4,200 | | | | |
| BAGNI DI TIVOLI | | 250 | | | | | |
| CASTELLANO | | | | | 2,250 | | |
| CASTELNUOVO CECINA | | 12,000 | | | | | |
| CASTELNARIMA | | | | | 6,000 | | |
| FARFA 1 | | | | | 4,560 | | |
| FORLICUPA | | | | | 3,800 | | |
| GEROSA 1 | | | 4,000 | | | | |
| LIMA | | 1,500 | | | | | |
| MANDELA | | | | | | 3,000 | |
| MOLINA ATERNO | | | 500 | | | | |
| MORGINE | | | 140 | | | | |
| PONTEFIUME | | | | | 3,400 | | |
| SALISANO | | | | | | | 8,000 |
| VENAFRIELLO | | | | | 3,000 | | |
| Monthly Increase | | 25,310 | 48,180 | - | 57,410 | 3,000 | 42,400 |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SCANELLE | 4,000 | | | | | | |
| SELVENA | 1,575 | | | | | | |
| SPOLETO | 350 | | | | | | |
| SUBLACO | 3,880 | | | | | | |
| TERQUINIA | 150 | | | | | | |
| TERNI JUTE | 1,100 | | | | | | |
| TERNI STEEL | 600 | | | | | | |
| VESTA | 2,640 | | | | | | |
| VULCI | 3,520 | | | | | | |
| SMALL PLANTS | 15,551 | | | | | | |
| ADDOLORATA | | 560 | | | | | |
| AVENTINO | | | 4,200 | | | | |
| BAGNI DI TIVOLI | | 250 | | | | | |
| CASTELLANO | | | | | 2,250 | | |
| CASTELNUOVO CECINA | | 12,000 | | | | | |
| CASTELNUOVO DI PORTO | | | | | 6,000 | | |
| FARFA 1 | | | | | 4,560 | | |
| FONTECUPA | | | | | 3,800 | | |
| GEROSA 1 | | | 4,000 | | | | |
| LIMA | | 1,500 | | | | | |
| MANDELA | | | | | | 3,000 | |
| MOLINA ATERNO | | | 500 | | | | |
| MORGINE | | | 140 | | | | |
| PONTEFIURE | | | | | 3,400 | | |
| SALISANO | | | | | | | 8,000 |
| VENAFRTELLO | | | | | 3,000 | | |
| Monthly Increase | | 25,310 | 48,180 | - | 57,410 | 3,000 | 42,400 |
| TOTALS ..... | 211,616 | 236,926 | 285,106 | 285,106 | 342,516 | 345,516 | 387,916 |

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SOUTHERN ITALY

TABLE "C"

Installed generating capacity and present output of generating stations in operation as of 28 Feb.45.

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| ANIC TH. | 3,000 | - | No report. |
| CALUSIA | 33,200 | 19,000 | Insufficient water. |
| CAPUANO TH. | 45,000 | 20,000 | - |
| CARDONE | 1,050 | - | No report. |
| CELESTE | 1,410 | - | No report. |
| DOGANELLA TH. | 8,820 | 4,100 | - |
| FIUME DI MEZZO | 1,080 | - | No report. |
| FRATTE TH. | 1,400 | - | No report. |
| GALATRO | 1,000 | - | No report. |
| LUCERA TH. | 1,080 | - | No report. |
| MATESE 1 | 10,500 | 9,600 | Insufficient water. |
| MATESE 2 | 11,200 | - | War damage. |
| MARIARICO (FERDINANDEA) | 1,800 | - | No report. |
| MERCURE | 1,308 | - | No report. |
| MURO LUCANO | 1,680 | - | No report. |
| NAPOLI SETA TH. | 1,800 | - | No report. |
| ORICHELLA | 54,000 | 36,000 | Damaged unit. |
| S.GIOVANNI A TEDUCCIO TH. | 1,800 | - | No report. |
| S.MANGO (CALORE) | 17,250 | 5,000 | War damage. |
| SOLURI (CORACE) | 1,408 | - | No report. |
| SUIO (GARIGLIANO) | 9,225 | - | War damage. |
| TANAGRO 1 | 9,600 | | |

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| | | | |
|---|---|---|---|
| CALUSIA | 33,200 | 19,000 | Insufficient water. |
| CAPUANO TH. | 45,000 | 20,000 | - |
| CARDONE | 1,050 | - | No report. |
| CELESTE | 1,410 | - | No report. |
| DOGANELLA TH. | 8,820 | 4,100 | - |
| FIUME DI MEZZO | 1,080 | - | No report. |
| FRATTE TH. | 1,400 | - | No report. |
| GALATRO | 1,000 | - | No report. |
| LUCERA TH. | 1,080 | - | No report. |
| MATESE 1 | 10,500 | 9,600 | Insufficient water. |
| MATESE 2 | 11,200 | - | War damage. |
| MARGARICO (FERDINANDEA) | 1,800 | - | No report. |
| MERCURE | 1,308 | - | No report. |
| MURO LUCANO | 1,680 | - | No report. |
| NAPOLI SETA TH. | 1,800 | - | No report. |
| ORICHELLA | 54,000 | 36,000 | Damaged unit. |
| S.GIOVANNI A TEDUCCHIO TH. | 1,800 | - | No report. |
| S.MANGO (CALORE) | 17,250 | 5,000 | War damage. |
| SOLURI (CORACE) | 1,408 | - | No report. |
| SUIO (GARIGLIENO) | 9,225 | - | War damage. |
| TANAGRO 1 | 9,600 | 11,800 | - |
| TANAGRO 2 | 2,000 | | |
| TARANTO TH. | 4,385 | - | No report. |
| TEMPA GRANDE | 72,800 | 78,000 | - |
| TUSCIANO 2 (OLEVANO) | 9,680 | 8,150 | Insufficient water |
| 71 SMALL PLANTS | 23,503 | - | No report. |
| TOTALS ..... | 332,983 | 191,650 | |



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# CENTRAL ITALY

## CHART 2

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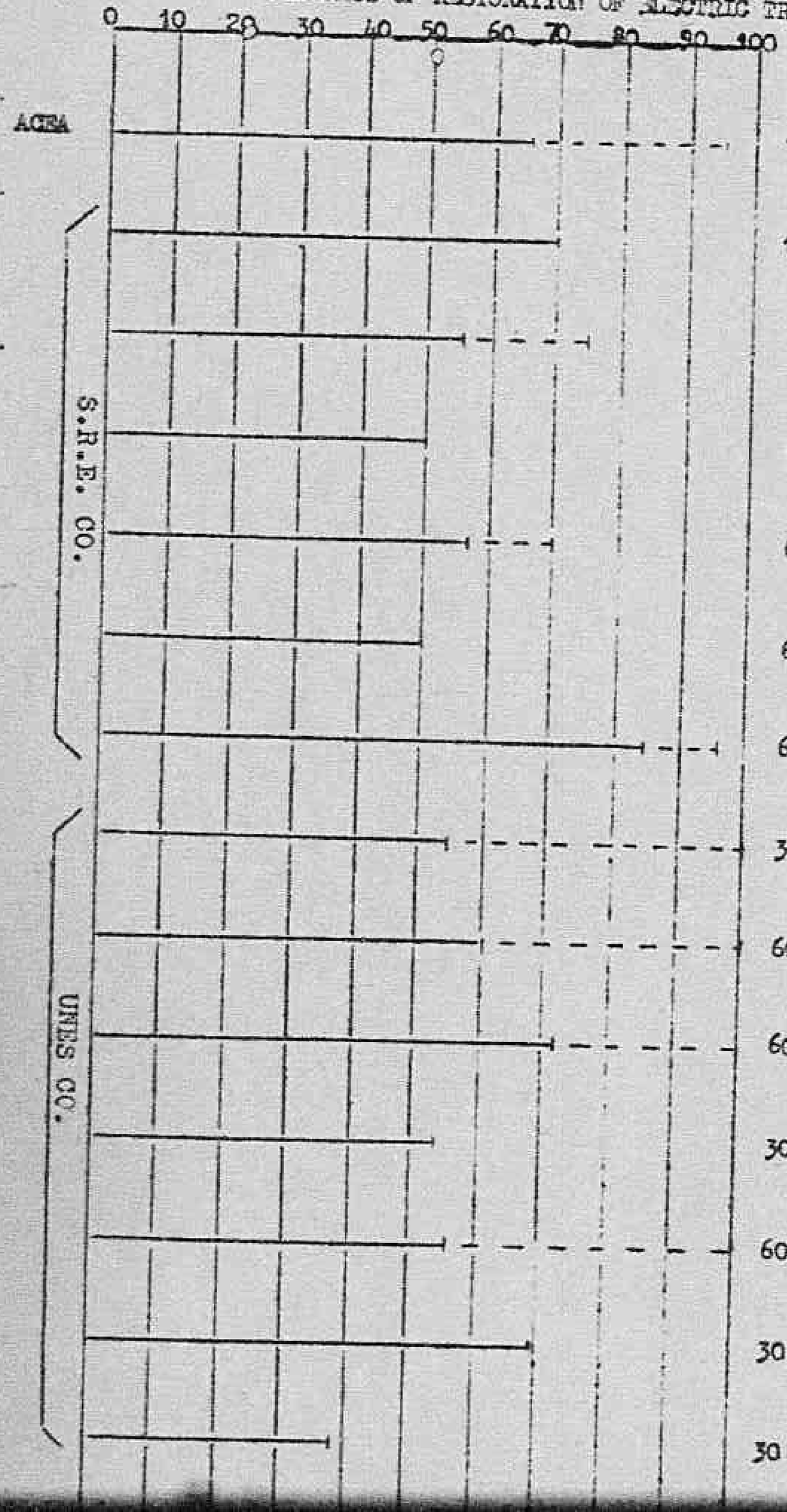
# CENTRAL ITALY

## CHART 2

ESTIMATED MONTHLY INCREASE ELECTRIC GENERATION

# CENTRAL ITALY

PROGRESS OF RESTORATION OF ELECTRIC TRANSMISSION LINES




TOTAL LENGTH

150 kV Galleto - Laurentina
94 Km.

150 kV Canterno - Cinecitta'
57.8 Km.

60 kV Terni - Tor di Quinto
(red circuit)
73.5 Km.

60 kV Terni - Tor di Quinto
(white circuit)
73.5 Km.

60 kV Terni - Tiburtino
(red circuit)
78 Km.

60 kV Terni - Tiburtino
(white circuit)
78 Km.

60 kV Acquoria - Ceccano
68 Km.

30 kV Liscia - Ancona
50 Km.

60 kV Pescara - Cupello
60 Km.

60 kV Fabriano - Perugia
53 Km.

30 kV Pescara - Cupello
60 Km.

60 kV Pedaso - Ponte Maglio
30 Km.

30 kV Cupello - Agnone
40 Km.

30 kV Aquila - Montereale
30 Km.

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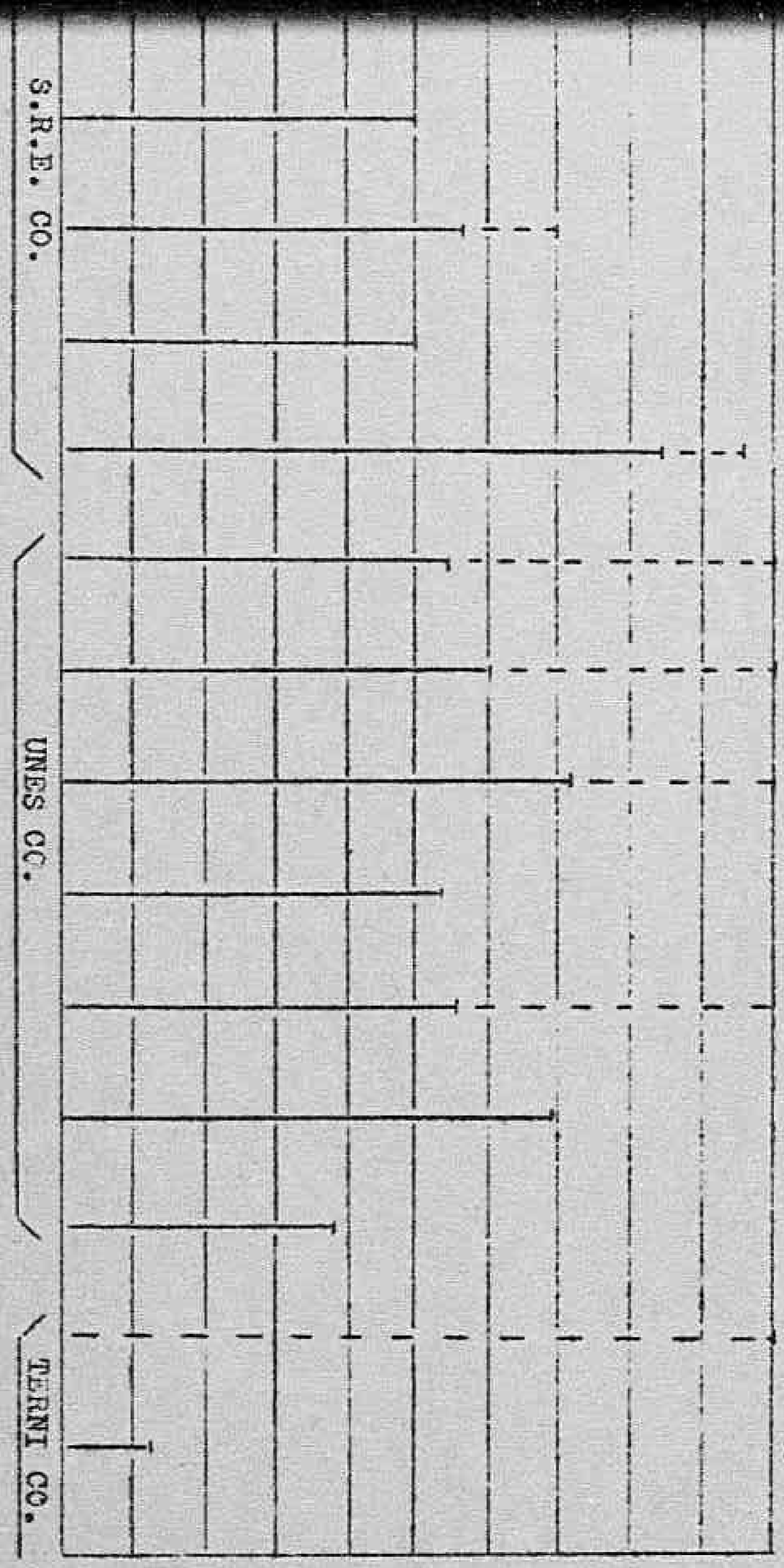


(red circuit)
73.5 Km.

60 kV Terni - Tor di Quinto
(white circuit)
73.5 Km.

60 kV Terni - Tiburtino
(red circuit)
78 Km.

60 kV Terni - Tiburtino
(white circuit)
78 Km.

60 kV Acquoria - Ceccano
68 Km.

30 kV Liscia - Ancona
50 Km.

60 kV Pescara - Cupello
60 Km.

60 kV Fabriano - Perugia
53 Km.

30 kV Pescara - Cupello
60 Km.

60 kV Pedaso - Ponte Maglio
30 Km.

30 kV Cupello - Agnone
40 Km.

30 kV Aquila - Montereale
30 Km.

70 kV Papigno - N.Montoro
20 Km.

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230 kV Casannelle - Popoli
66 Km.

Note: Broken line shows restoration completed February 1945.



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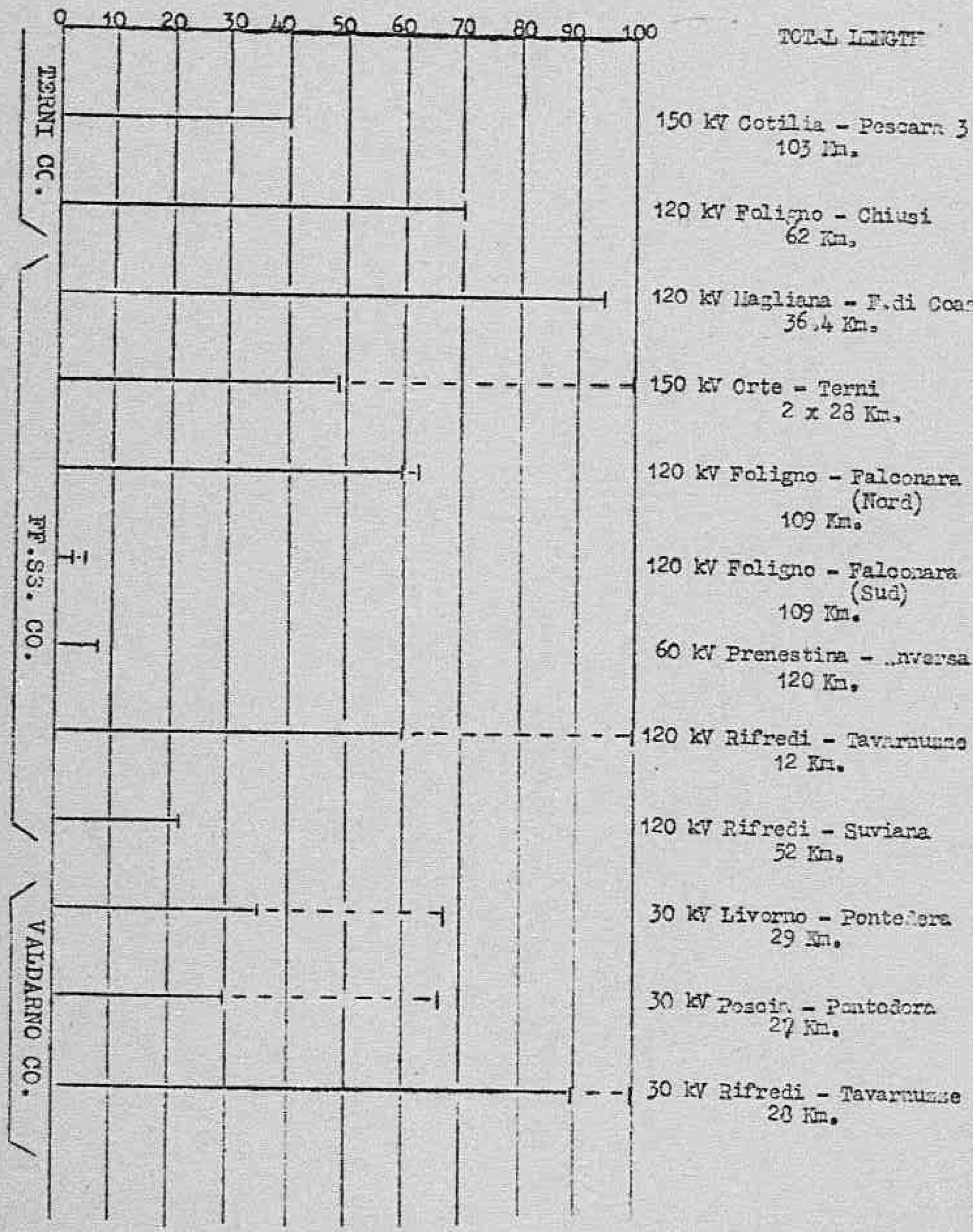
CHART 1 (Continued)

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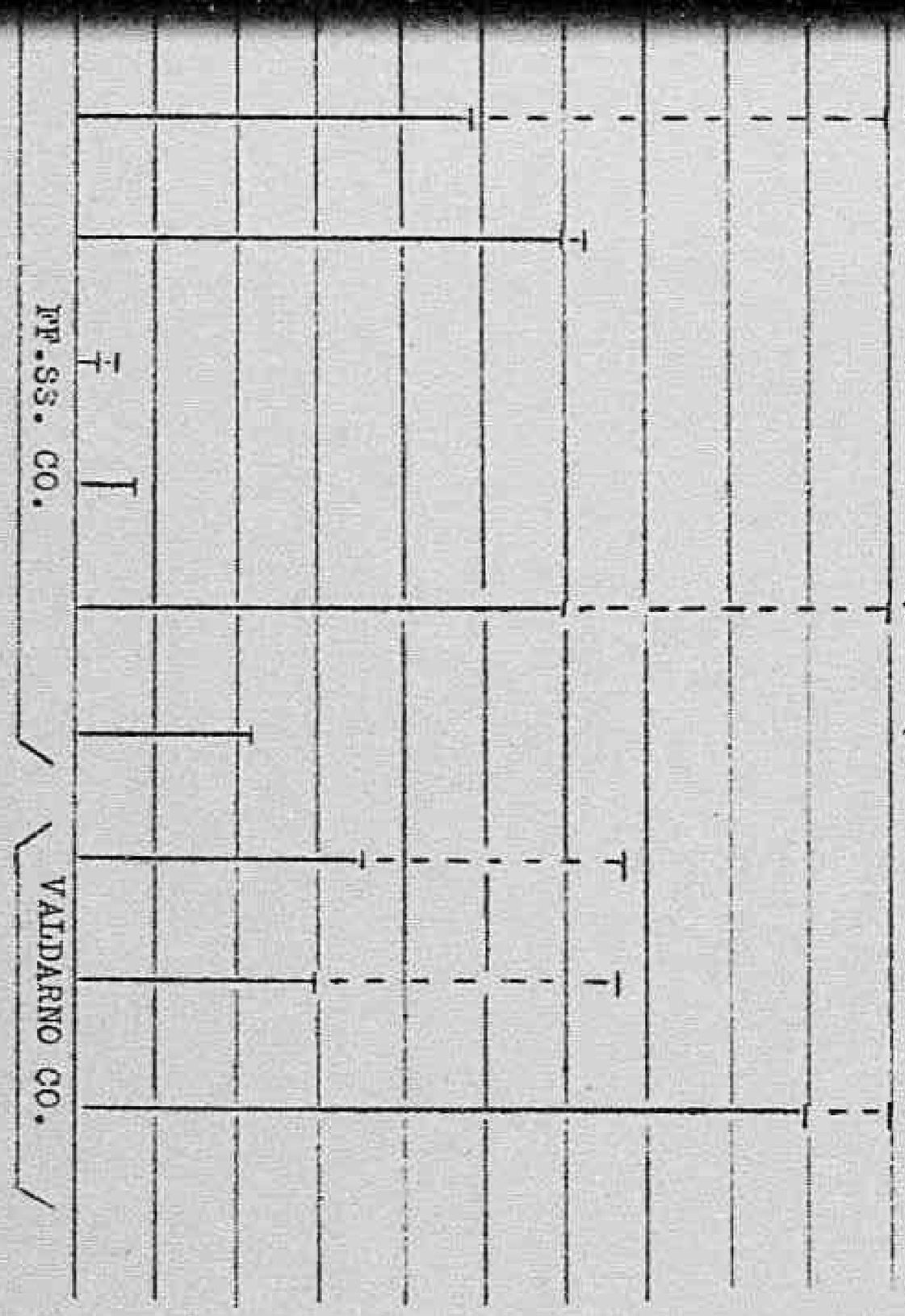


150 kV Orte - Terni
2 x 26 Km.

120 kV Foligno - Falconara (Nord)
109 Km.

120 kV Foligno - Falconara (Sud)
109 Km.

60 kV Prenestina - ..nversa
120 Km.

120 kV Rifredi - Tavarnuzze
12 Km.

120 kV Rifredi - Suviana
52 Km.

30 kV Livorno - Pontedera
29 Km.

30 kV Pescia - Pontedera
27 Km.

30 kV Rifredi - Tavarnuzze
28 Km.

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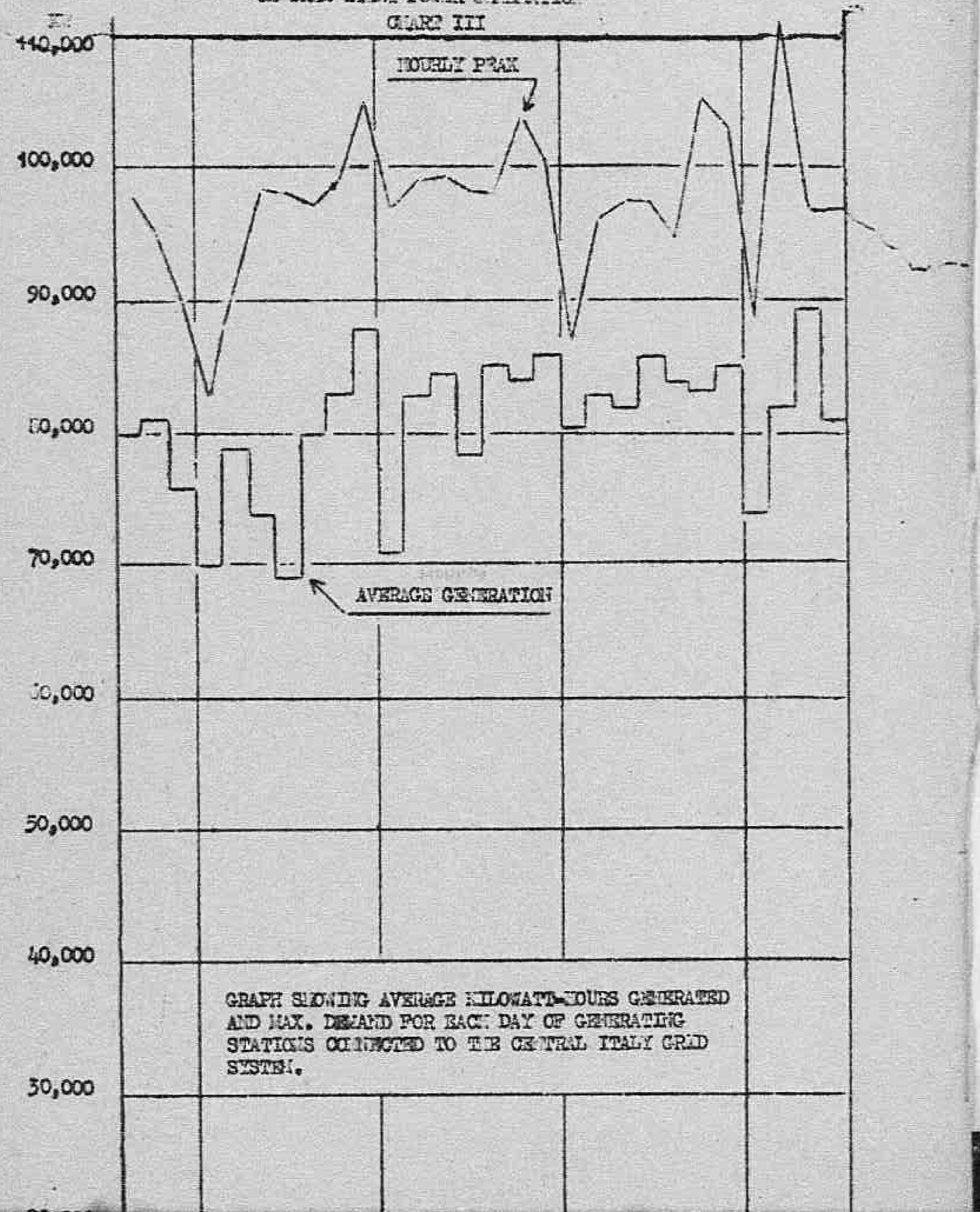
CENTRAL ITALY POWER OPERATIONS

CHART III




GRAPH SHOWING AVERAGE KILOWATT-HOURS GENERATED AND MAX. DEMAND FOR EACH DAY OF GENERATING STATIONS CONNECTED TO THE CENTRAL ITALY GRID SYSTEM.

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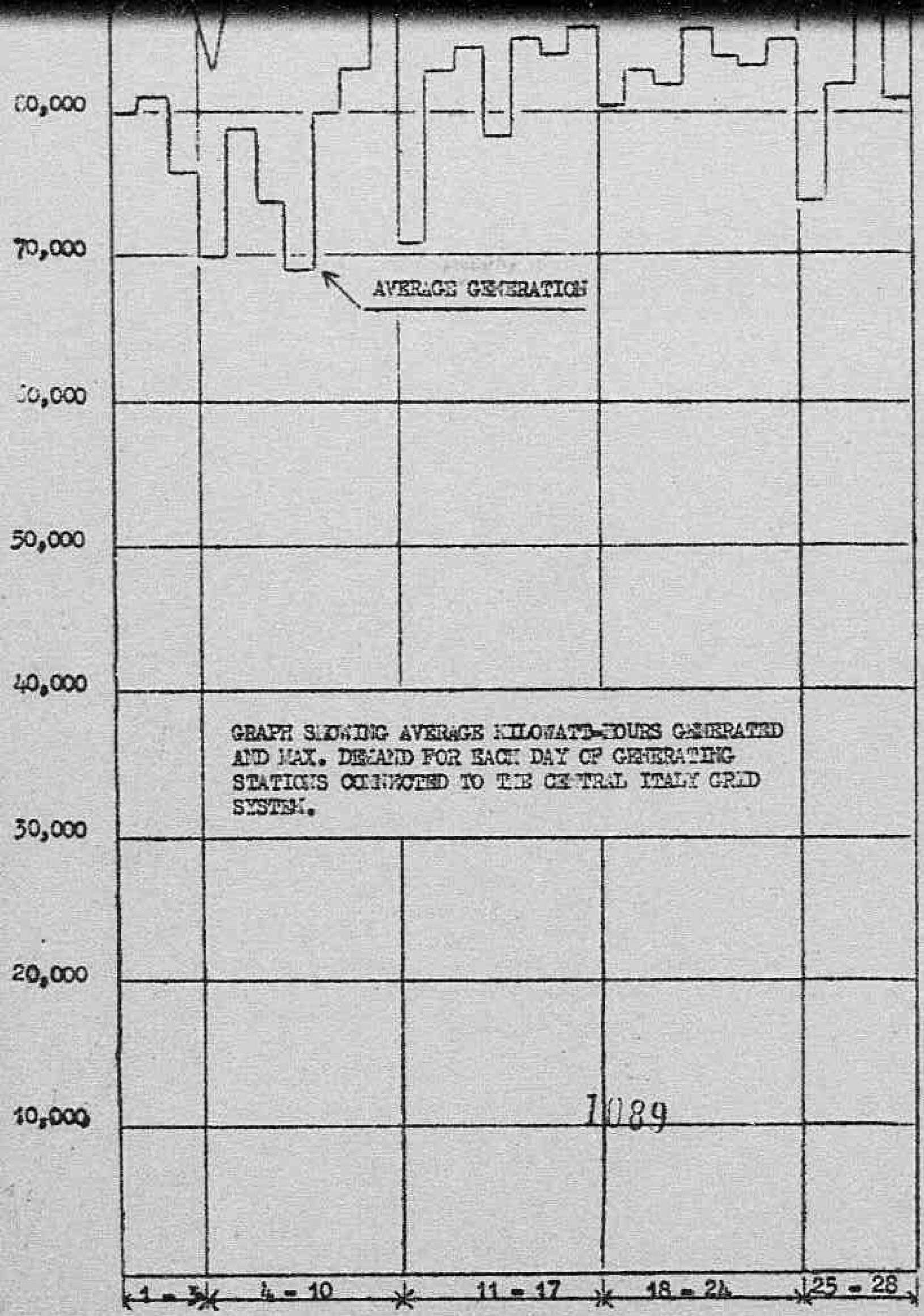


GRAPH SHOWING AVERAGE KILOWATT-HOURS GENERATED AND MAX. DEMAND FOR EACH DAY OF GENERATING STATIONS CONNECTED TO THE CENTRAL ITALY GRID SYSTEM.

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Lt. Col Lapper

HEADQUARTERS ALLIED COMMISSION
Public Works and Utilities Sub-Commission
APO 394

Reference : 158/PWU 13 February 1945.

Subject : Transmittal of Electric Plant Rehabilitation Report.

To : See Distribution List.

1. Transmitted herewith is a copy of a report prepared by the Electrical Division of the Public Works and Utilities Sub-Commission detailing the production of electricity and the progress of repairs to electric plants.

[signature]
...H.LAPPER
Lt-Colonel,
Chief Electrical Div.

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1. Transmitted herewith is a copy of a report prepared by the Electrical Division of the Public Works and Utilities Sub-Commission detailing the production of electricity and the progress of repairs to electric plants.

--.M.E.PEAR
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HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

ELECTRICAL DIVISION

RESTORATION OF ITALIAN ELECTRICAL PLANT AND TRANSMISSION SYSTEM

PROGRESS REPORT FOR MONTH OF JANUARY 1945

W.M. LAPPER LT.COL.
Chief Electrical Division



Declassified E.O. 12356 Section 3.3/NND No. 785019

RESTORATION OF ITALIAN ELECTRICAL PLANT AND TRANSMISSION SYSTEM

PROGRESS REPORT FOR MONTH OF JANUARY 1945

W.M. LAPPER LT.COL.
Chief Electrical Division

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CENTRAL ITALY

TABLE "A"

Installed generating capacity and present output of generating stations in operation on the grid system as of 31 January 1945.

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| ACQUORIA | 57,300 | 3,400 | War damage. |
| ANCONA TH. | 4,240 | - | War damage. |
| ANGHIARI | 1,308 | - | War damage. |
| ANVERSA PRINCIPALS | 30,000 | - | War damage. |
| ARCI | 8,320 | 5,000 | Insufficient water. |
| ARLIA | 3,500 | - | Enemy hands. |
| AURELIA TH. | 2,500 | - | War damage. |
| AVENTINO | 9,600 | - | war damage. |
| BASTARDO TH. | 15,000 | - | War damage. |
| BOLOGNOLA | 2,760 | 1,350 | Insufficient water. |
| BORGO (PICRACO) | 1,182 | - | No report. |
| BUSSI SUL TIRINO 2 S. | 1,500 | - | No report. |
| CANISTRO | New const. | - | War damage. 12,960 KW. |
| CANTERNO | New.const. | - | Being completed. 12,000 KW |
| CAR.[illegible] | 1,048 | 4708 | Incomplete report. |
| CASTELLANO | 6,720 | - | War damage. |
| CASTELMADAMA | 14,000 | - | War damage. |
| CASTELNUOVO GARFAGNANA | 7,200 | - | Enemy hands. |
| CASTELNUOVO SABBIONI TH. | 20,400 | - | War damage. |
| CASTELNUOVO VAL CROCINA TH. | 18,000 | - | War damage. |

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| | KW | KW | |
|---|---|---|---|
| ACQUORIA | 57,300 | 3,400 | War damage. |
| ANCONA TH. | 4,240 | - | War damage. |
| ANGHIARI | 1,308 | - | War damage. |
| ANVERSA PRINCIPALE | 30,000 | - | War damage. |
| ARDI | 8,320 | 5,000 | Insufficient water. |
| ARLIA | 3,300 | - | Enemy hands. |
| AURELIA TH. | 2,500 | - | War damage. |
| AVENTINO | 9,600 | - | War damage. |
| BASTARDO TH. | 15,000 | - | War damage. |
| BOLOGNOLA | 2,760 | 1,350 | Insufficient water. |
| BORGO (FIORAGO) | 1,182 | - | No report. |
| BUSSI SUL TIRINO 2 S. | 1,500 | - | No report. |
| CANISTRO | New const. | - | War damage. 12,960 KW. |
| CANTERNO | New.const. | - | Being completed. 12,000 KW |
| CARSOLI | 1,048 | 4700 | Incomplete report. |
| CASTELLANO | 6,720 | - | War damage. |
| CASTELMADAMA | 14,000 | - | War damage. |
| CASTELNUOVO GARFAGNANA | 7,200 | - | Enemy hands. |
| CASTELNUOVO SABBIONI TH. | 20,400 | - | War damage. |
| CASTELNUOVO VAL CROSIA TH. | 48,000 | - | War damage. |
| CEPRANO | 12,960 | 3,500 @ | Unit transferred. |
| CERV..R. | 9,000 | 6,900 | Aged machines. |
| COLLESTATTE | 9,000 | - | War damage. |

@ ESTIMATED.



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TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| COMUNACHIA | 9,120 | 5,700 | Insufficient water. |
| CORFINO (PONTE COSI) | 4,780 | - | Enemy hands. |
| COTILIA | 54,720 | - | War damage. |
| DE CECCO | 1,800 | 550 @ | Incomplete report. |
| F.E. 1 | 19,200 | - | War damage. |
| F.E. 2 | 9,000 | 4,500 | War damage. |
| FONTANA LIRI (CERASOLI) | 2,880 | - | War damage. |
| FONTECUPA | 4,800 | - | War damage. |
| FUMO | 2,820 | - | War damage. |
| GALLETO | 137,600 | 20,000 | War damage. |
| GALLICANO | 22,000 | - | War damage. |
| GENOA SUPERIORE | 14,000 | - | War damage. |
| GIARDINO (LIRI) | 7,240 | - | War damage. |
| L.M. DEI FIORENTI | 1,680 | - | War damage. |
| LANDRIANO 1 TH. | 6,900 | 2,950 | War damage. |
| LANDRIANO 2 TH. | 72,000 | - | War damage. |
| LIVORNO TH. | 42,000 | - | War damage. |
| LIVORNO (U.S. ARMY) | Portable | 1,600 @ | Portable equipment 4 x 400 KW units. |
| MANDELL | 6,000 | - | War damage. |
| MANDRE | 17,900 | - | War damage. |
| MOLIN. TURBO | 1,050 | - | War damage. |
| MORETO 1 S. | 1,080 | - | War damage. |

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| | | | |
|---|---|---|---|
| CORPINO (PONTE GOSI) | 4,760 | - | Heavy hauls. |
| COTELLA | 54,720 | - | War damage. |
| DI CECCO | 1,800 | 550 G | Incomplete report. |
| F.LLI 1 | 19,200 | - | War damage. |
| F.LLI 2 | 9,000 | 4,500 | War damage. |
| FONTANA LIRI (CERASOLI) | 2,880 | - | War damage. |
| FONTECCHIA | 4,800 | - | War damage. |
| FUSCO | 2,820 | - | War damage. |
| GALLETO | 137,600 | 20,000 | War damage. |
| GALLICANO | 22,000 | - | War damage. |
| GIROLA SUPERIORE | 14,000 | - | War damage. |
| GIARDINO (DEL) | 7,240 | - | War damage. |
| L.M. DEI PELIGNI | 1,680 | - | War damage. |
| LADISTELLO 1 TH. | 6,900 | 2,950 | War damage. |
| LADISTELLO 2 TH. | 72,000 | - | War damage. |
| LIVORNO TH. | 42,000 | - | War damage. |
| LIVORNO (U.S. ARMY) | Portable | 1,600 G | Portable equipment 4 x 400 KW units. |
| MANDELA | 6,000 | - | War damage. |
| MAYORE | 17,900 | - | War damage. |
| MOLEN.. TARO | 1,050 | - | War damage. |
| MORINO 1 S. | 1,080 | - | War damage. |
| MORINO 2 S. | 1,666 | - | War damage. |
| MORRO | 12,800 | - | War damage. |
| MORRONO | 2,850 | - | War damage. |
| NERA MONTORO | 19,600 | 15,800 | Insufficient water. |

G ESTIMATED.



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TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| PAPIANO | 66,000 | - | War damage. |
| PAVIA | 12,800 | - | War damage. |
| PED.SO | 4,500 | 3,500 | |
| PELAGALLI (STROBLE) | 2,000 | 1,000 | War damage. |
| PESC.R. 1 | 9,920 | - | War damage. |
| PESC.R. 2 | 11,520 | - | War damage. |
| PESC.R. 3 | 20,500 | - | War damage. |
| PESCARA 4 | 22,800 | - | War damage. |
| PETTORANO (GILLIO) | 4,000 | - | War damage. |
| PIANCAVOLI | 1,920 | 1,900 @ | |
| PIAN DELLA ROCCA | 33,600 | 1,000 @ | War damage. |
| PIANISOLA | 1,870 | 1,600 | |
| PIETRAFITTA TH. | 16,300 | - | War damage. |
| PIOMBINO TH. | 6,960 | - | War damage. |
| POLVERIFICIO FORNELLA LIRI | 1,850 | - | War damage. |
| PONTE TERRA (S.GIOVANNI INC.) | 9,000 | - | War damage. |
| PORRINO 3 S. (MONTALTO) | 7,100 | - | War damage. |
| PORTOFERRAIO TH. | 4,480 | - | War damage. |
| PRATOVECCHIO | 1,175 | - | War damage. |
| PRIOLO | 9,100 | - | War damage. |
| PROVVIDENZA | New const. | - | Proposed 120,000 Kw. |

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| | | | |
|---|---|---|---|
| PAPIANO | 66,000 | - | War damage. |
| PAVIA | 12,000 | - | War damage. |
| PELSO | 4,500 | 3,500 | |
| PELAGILLI (SPRELLE) | 2,000 | 1,000 | War damage. |
| PESC.R. 1 | 9,920 | - | War damage. |
| PESC.R. 2 | 11,520 | - | War damage. |
| PESC.R. 3 | 20,500 | - | War damage. |
| PESLAR. 4 | 28,800 | - | War damage. |
| PETTORANO (GILLIO) | 4,000 | - | War damage. |
| PIANARUCCI | 1,920 | 1,900 @ | |
| PIAN DELLA ROCCA | 33,600 | 1,000 @ | War damage. |
| PIANICELLA | 1,870 | 1,600 | |
| PIEDIFIL. TH. | 16,300 | - | War damage. |
| PIOMBINO TH. | 6,960 | - | War damage. |
| POLVERIFICIO FONTANA LIRI | 1,850 | - | War damage. |
| PONTECORVO (S.GIOVANNI INC.) | 9,000 | - | War damage. |
| PORRETTA S.S. (VAL TIGNE) | 7,100 | - | War damage. |
| PORRETTA TH. | 4,480 | - | War damage. |
| PRATIELLO | 1,175 | - | War damage. |
| PRECI | 9,100 | - | War damage. |
| PRENESTINA | New const. | - | Proposed 120,000 Kw. |
| RIETI TH. (Non Grid) | 2,000 | 840 | Coal supply / Repairs. |
| RIFREDDI F. | 7,000 | 1084 | War damage. |
| RIOMINO (FIUMINO) (Non Grid) | 3,400 | 1,400 @ | War damage. |
| ROCCHETTA | 3,400 | - | Enemy hands. |

@ ESTIMATED. - 4 -

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TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| ROME TR. | 52,000 | 27,900 | Maint. & Repairs. |
| ROSETANO TR. | 9,344 | 5,000 @ | War damage. |
| SALISANO | 16,000 | - | War damage. |
| SANTA | 1,360 | 185 | War damage. |
| SARCINO | New const. | - | Proposed 158,400 KW. |
| SAVIGNO (GEN) | 1,408 | 480 | |
| SCANDRY | 8,000 | 4,000 | Insufficient water. |
| SELVIA | 3,150 | - | War damage. |
| SERANO | 1,080 | - | Enemy hands. |
| SILICO | 1,200 | - | Enemy hands. |
| SPERLONGA | 12,680 | - | War damage. |
| SPOLETO (Non Grid) | 2,450 | 250 | |
| SUBIACO | 7,760 | 5,200 | War damage. |
| TERNI | 30,000 | - | Enemy hands. |
| TERNI JUNC | 1,100 | 900 | |
| TERNI JUNC. | 2,800 | - | War damage. |
| TERNI PLATE | 1,500 | - | Generator burned out. |
| TERNI STEEL (Non Grid) | 1,464 | 494 | |
| VENAFRANO | 15,520 | - | War damage. |
| VIAT. | 2,640 | 2,300 | |
| VULCI | 5,520 | 2,300 | |
| [illegible] | 1,775 | - | War damage. |

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| | | | |
|---|---|---|---|
| S.LEMPO | 16,000 | - | War damage. |
| S.ZAMA. | 1,360 | 185 | War damage. |
| S.CLOTH | New const. | - | Processed 158,400 lbs. |
| S.SAVIDO (SHE) | 1,400 | 490 | |
| SCALZER | 8,000 | 4,000 | Insufficient water. |
| SELVER. | 3,150 | - | War damage. |
| SHILONG | 1,080 | - | Enemy hands. |
| SHILOO | 1,200 | - | Enemy hands. |
| SPINADO | 12,080 | - | War damage. |
| SPOLETO (Non Grid) | 2,450 | 250 | |
| SUBLAO | 7,760 | 3,200 | War damage. |
| TEGIL. | 30,000 | - | Enemy hands. |
| TERNI JUTE | 1,100 | 900 | |
| TERNI MINIC. | 2,800 | - | War damage. |
| TERNI PLATE | 1,500 | - | Generator burned out. |
| TERNI STEEL (Non Grid) | 1,464 | 494 | |
| VENAFRIULO | 15,520 | - | War damage. |
| VESTA | 2,640 | 2,300 | |
| VULCI | 3,520 | 2,300 | |
| ZEROG. 1 | 1,775 | - | War damage. |
| ZEROG. 2 | 1,200 | - | War damage. |
| SMALL PLANTS | 64,306 | 9,748 | 56 Plants operating. |

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TABLE "A" (continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output. |
|---|---|---|---|
| MOLISE | | | |
| CAPO VOLTURNO | 20,000 | - | War damage. |
| LUPI (PRIV. SAMNIL.) | 9,400 | - | War damage. |
| PONTELANDOLFO | 2,240 | - | War damage. |
| S.[illegible]ARDINO | 5,000 | - | War damage. |
| S.S. IRITO | 1,250 | - | War damage. |
| SOCIETA' | 1,070 | - | War damage. |
| VENAFRO | 1,000 | - | War damage. |
| TOTALS ..... | 1,492,236 | 145,817 | |

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| | | | |
|---|---|---|---|
| LETI (PRIV. OWNER.) | 9,400 | - | War damage. |
| PONTEROTTO | 2,240 | - | War damage. |
| S.MARINO | 5,000 | - | War damage. |
| S.S FRUTTO | 1,250 | - | War damage. |
| SOTTIL. | 1,070 | - | War damage. |
| VALENTIN | 1,000 | - | War damage. |
| TOTALS ..... | 1,292,336 | 145,817 | |

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C E N T R a L  I T a L Y

TABLE "B"

Schedule of Generator Capacity in service and being repaired 31 January 1945.

| Name of Station | Plant in operation 31 Jan.1945 | YEAR 1945 | | | | | |
|---|---|---|---|---|---|---|---|
| | | 28 Feb. | 31 March | 30 April | 31 May | 30 June | 31 July |
| ACQUORIA | 3,500 | | | 4,000 | | | |
| ARCI | 8,320 | | | | | | |
| BOLOGNOLA | 2,760 | | | | | | |
| CARBSAI | 720 | | | | | | |
| CEPRANO | 3,500 | | | 5,500 | | | |
| CERVARA | 9,000 | | | | | | |
| CORNACCHIA | 9,120 | | | | | | |
| DI OSOCO | 600 | | | | | | |
| FAEFA 2 | 4,500 | | | | | | |
| GALLETO | 34,400 | | | 34,400 | | 34,400 | 34,400 |
| LANDRILLO 1 | 4,600 | | | | | | |
| LEGHORN (U.S.A.) | 1,600 | | | | | | |
| MERA MONTORO | 19,600 | | | | | | |
| PADOS | 4,500 | | | | | | |
| PIANCALDI | 1,000 | | | | | | |
| PIANARUCCI | 1,920 | | | | | | |
| PIAN DELLA ROSA | 14,000 | 11,000 | | | | | |
| PIANICELLA | 1,870 | | | | | | |
| RIETI TH. | 1,000 | | | | | | |
| RIORDINO | 1,400 | | | | | | |
| ROSE TORBAL | 33,000 | | | | | | |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ACQUORELA | 3,500 | | | | | | |
| ARCI | 3,320 | | | | | | |
| ROLOGNOLA | 2,760 | | | | | | |
| CARLOSAI | 720 | | | | | | |
| CEFRANO | 3,500 | | | 5,500 | | | |
| CERVARA | 9,000 | | | | | | |
| CONIACQUA | 9,120 | | | | | | |
| DI CECCO | 600 | | | | | | |
| FAITA 2 | 4,500 | | | | | | |
| GALLETO | 34,400 | | | 34,400 | | 34,400 | 34,400 |
| LAURENTILO 1 | 4,600 | | | | | | |
| LEGNONI (U.S.A.) | 1,600 | | | | | | |
| NERA MONTORO | 19,600 | | | | | | |
| PIRASO | 4,500 | | | | | | |
| PIRAGALLI | 1,000 | | | | | | |
| PIANARUCCI | 1,920 | | | | | | |
| PIAN DELLA ROCA | 14,000 | 11,000 | | | | | |
| PIANICELLA | 1,870 | | | | | | |
| PIETI TH. | 1,000 | | | | | | |
| RICCARDO | 1,400 | | | | | | |
| ROSE TURRIAN | 33,000 | | | | | | |
| ROSIGNANO | 6,000 | | | | | | |
| S.ELENA | 400 | | | | | | |
| S.SAVINO (SNE) | 800 | | | | | | |
| SCALELLE | 4,000 | | | | | | |
| SEPOLCRO | 3,500 | | | | | | |
| SUBIACO | 3,380 | | | | | | |

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TABLE "D" (Continued)

| Name of Station | Plant in operation 31 Jan.1945 | MAR 1945 | | | | | |
|---|---|---|---|---|---|---|---|
| | | 28 Feb. | 31 March | 30 April | 31 May | 30 June | 31 July |
| TERNI JUTE | 1,100 | | | | | | |
| TERNI STEEL | 600 | | | | | | |
| VESTA | 2,640 | | | | | | |
| VULCI | 3,520 | | | | | | |
| S[illegible] | 16,587 | | | | | | |
| [illegible]DOLOR[illegible] | | 350 | 210 | | | | |
| AVEZZANO | | ~~4,000~~ | | 4000 | | | |
| BAGNI DI TIVOLI | | | 250 | | | | |
| CANTARO | | 10,000 | | | | | |
| CASENTINO | | | | | | 2,250 | |
| CASTELNUOVO GARFA | | | 12,000 | | | | |
| CASTELVOLTURNO | | | | | | 6,000 | |
| CERRA 1 | | | | 4,000 | | | |
| [illegible] DI FIBRENO | | 800 | | | | | |
| ELSA | | 1,500 | | | | | |
| FABRIANO | | | | | | | 3,000 |
| MOLINA ATERNO | | | | 500 | | | |
| MORGONE | | | | 140 | | | |
| SELVA | | 1,575 | | | | | |
| SILA | | 1,800 | | | | | |
| TARQUINIA | | 150 | | | | | |
| VILLAVALLE | | | | | | 3,000 | |

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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| [illegible] | 2,640 | | | | | | | |
| VULCI | 3,520 | | | | | | | |
| [illegible] | 16,587 | | | | | | | |
| ANDRIOLA | | 350 | 210 | | | | | |
| AVENTINO | | ~~4,000~~ | | 4000 | | | | |
| BAGNI DI TIVOLI | | | 250 | | | | | |
| CANTERNO | | 10,000 | | | | | | |
| CASTELLANO | | | | | | 2,250 | | |
| CASTELNUOVO GROTTA | | | 12,000 | | | | | |
| CASTELVADA | | | | | | 6,000 | | |
| CERRIA 1 | | | | 4,000 | | | | |
| [illegible] | | 800 | | | | | | |
| LEDA | | 1,500 | | | | | | |
| [illegible] | | | | | | | 3,000 | |
| [illegible] | | | | 500 | | | | |
| MORGANI | | | | 140 | | | | |
| SILVIA | | 1,575 | | | | | | |
| SILLA | | 1,800 | | | | | | |
| T.R.[illegible] | | 150 | | | | | | |
| [illegible] | | | | | | 3,000 | | |
| Monthly Increase | | ~~31,175~~ 23,175 | 12,460 | ~~48,540~~ 52,340 | - | 45,650 | 37,400 | |
| TOTALS ..... | 203,937 | ~~235,111~~ 231,111 | ~~247,571~~ 243,571 | 296,111 | 296,111 | 341,761 | 379,161 | |



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SOUTHERN ITALY

TABLE "C"

Installed generating capacity and present output of generating stations in operation as of 31 Jan.1945

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for loss in output |
|---|---|---|---|
| ANIC TH. | 3,000 | - | No report. |
| CALUSIA | 33,200 | 25,000 | Insufficient water. |
| CAPUANO TH. | 45,000 | 30,000 | - |
| CARBONE | 1,050 | - | No report. |
| CELESTE | 1,410 | - | No report. |
| COGNEIA TH. | 8,820 | 5,000 | - |
| FIRE DI FUEGO | 1,080 | - | No report. |
| FRATTA TH. | 1,400 | - | No report. |
| G.L.TRO | 1,000 | - | No report. |
| LUCERA TH. | 1,080 | - | No report. |
| [illegible] 1 | 10,500 | 5,400 | Insufficient water. |
| [illegible] 2 | 11,200 | - | War damage. |
| MARCIANISE (FONTANELLE) | 1,800 | - | No report. |
| MERCURE | 1,308 | - | No report. |
| MURO LUCANO | 1,680 | - | No report. |
| NAPOLI STEA TH. | 1,800 | - | No report. |
| ORICHELLA | 54,000 | 36,000 | Damaged unit. |
| S.GIOVANNI [illegible] TH. | 1,800 | - | No report. |
| S. [illegible] (C[illegible]) | 17,250 | 5,000 | War damage. |
| SOLOFRA (CO[illegible]) | 1,408 | - | No report. |
| SUIO (G.RIGLIANO) | 9,225 | - | War damage. |
| TARANTO 1 | 9,600 | 11,750 | - |

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| | | | |
|---|---|---|---|
| C-PUANO TH. | 45,000 | 30,000 | - |
| C.RDERE | 1,050 | - | No report. |
| CELESTE | 1,410 | - | No report. |
| COGNOLA TH. | 8,820 | 3,000 | - |
| FIUME DI MEZZO | 1,080 | - | No report. |
| FRATTA TH. | 1,400 | - | No report. |
| G.L.TRO | 1,000 | - | No report. |
| LUCRA TH. | 1,080 | - | No report. |
| [illegible] 1 | 10,500 | 5,400 | Insufficient water. |
| [illegible] 2 | 11,200 | - | War damage. |
| MARMARICO (FONTANELLA) | 1,800 | - | No report. |
| MIRDURO | 1,308 | - | No report. |
| MUNO LUCRINO | 1,890 | - | No report. |
| NAPOLI STA TH. | 1,800 | - | No report. |
| ORICHELLA | 54,000 | 56,000 | Damaged unit. |
| S.GIOVANNI A [illegible] TH. | 1,800 | - | No report. |
| S. [illegible] (C[illegible]) | 17,250 | 5,000 | War damage. |
| SCLURI (CON. IT) | 1,408 | - | No report. |
| SUIO (C.RIGLIANO) | 9,225 | - | War damage. |
| T.M.GRO 1 | 9,600 | 11,750 | - |
| T.M.GRO 2 | 2,000 | | |
| TARANTO TH. | 4,385 | - | No 1079. |
| TIBE. GRANDE | 72,800 | 79,000 | - |
| TUSCLANO 2 (OLIV.NO) | 9,480 | 8,150 | Insufficient water. |
| 71 [illegible] [illegible] TH | 23,503 | - | No report. |
| TOTALS ..... | 332,963 | 203,300 | |

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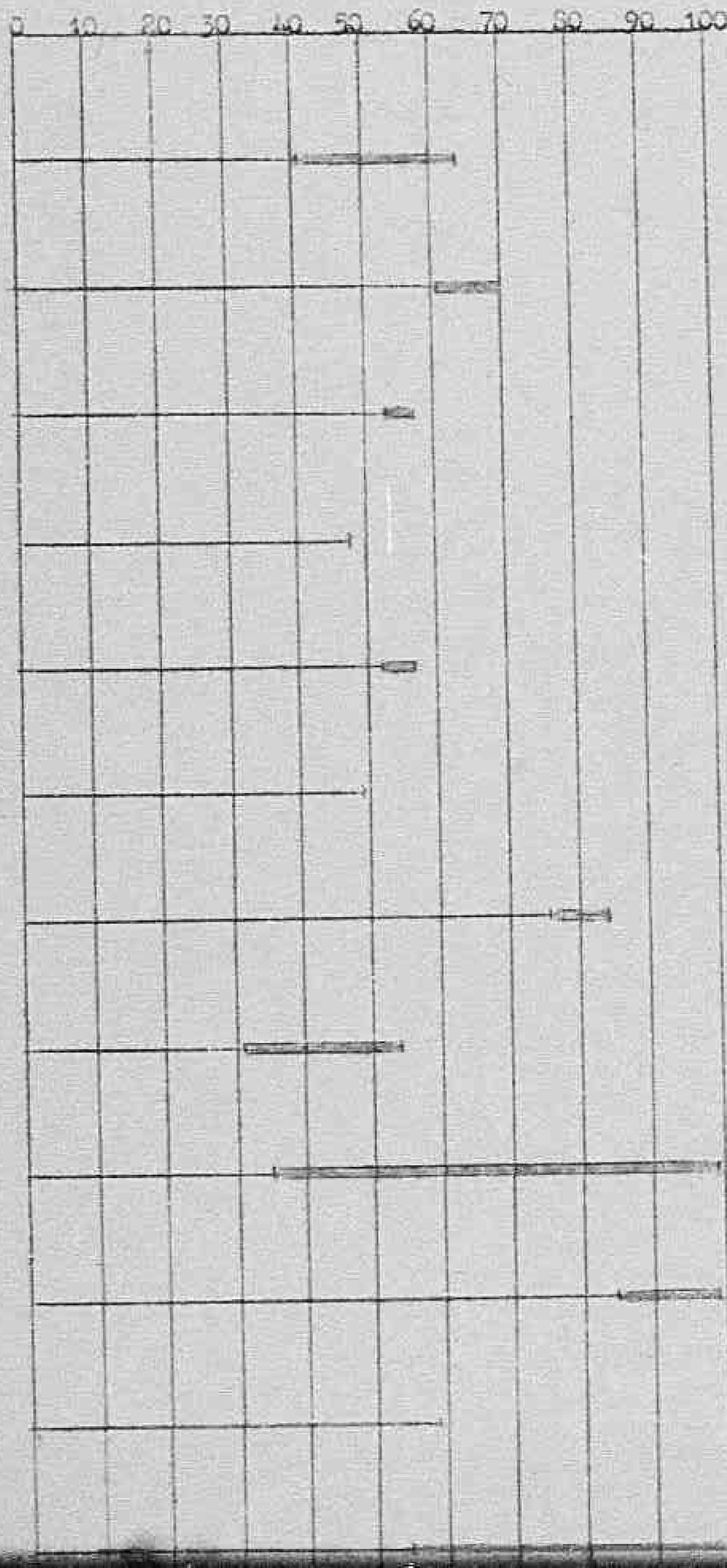
# CENTRAL ITALY

CHART 1

PROGRESS OF RESTORATION OF ELECTRIC TRANSMISSION LINES




TOTAL LENGTH

150 kV Galleto - Interruttore
24 Km.

150 kV Centumo - Cinecittà
57,8 Km.

60 kV Terni - Tor di Quinto(a.R.)
73,5 Km.

60 kV Terni - Tor di Quinto(a.R.)
73,5 Km.

60 kV Terni - Tiburtino (a.R.)
78 Km.

60 kV Terni - Tiburtino (a.R.)
78 Km.

60 kV Acquaria - Cocciano
68 Km.

30 kV Liscia - Aterno
50 Km.

30 kV Ancona - Fabriano
61 Km.

30 kV Avezzano - Tossi
32 Km.

60 kV Pescara - Cepagatti
60 Km.

30 kV Pescara - Tossi
44 Km.

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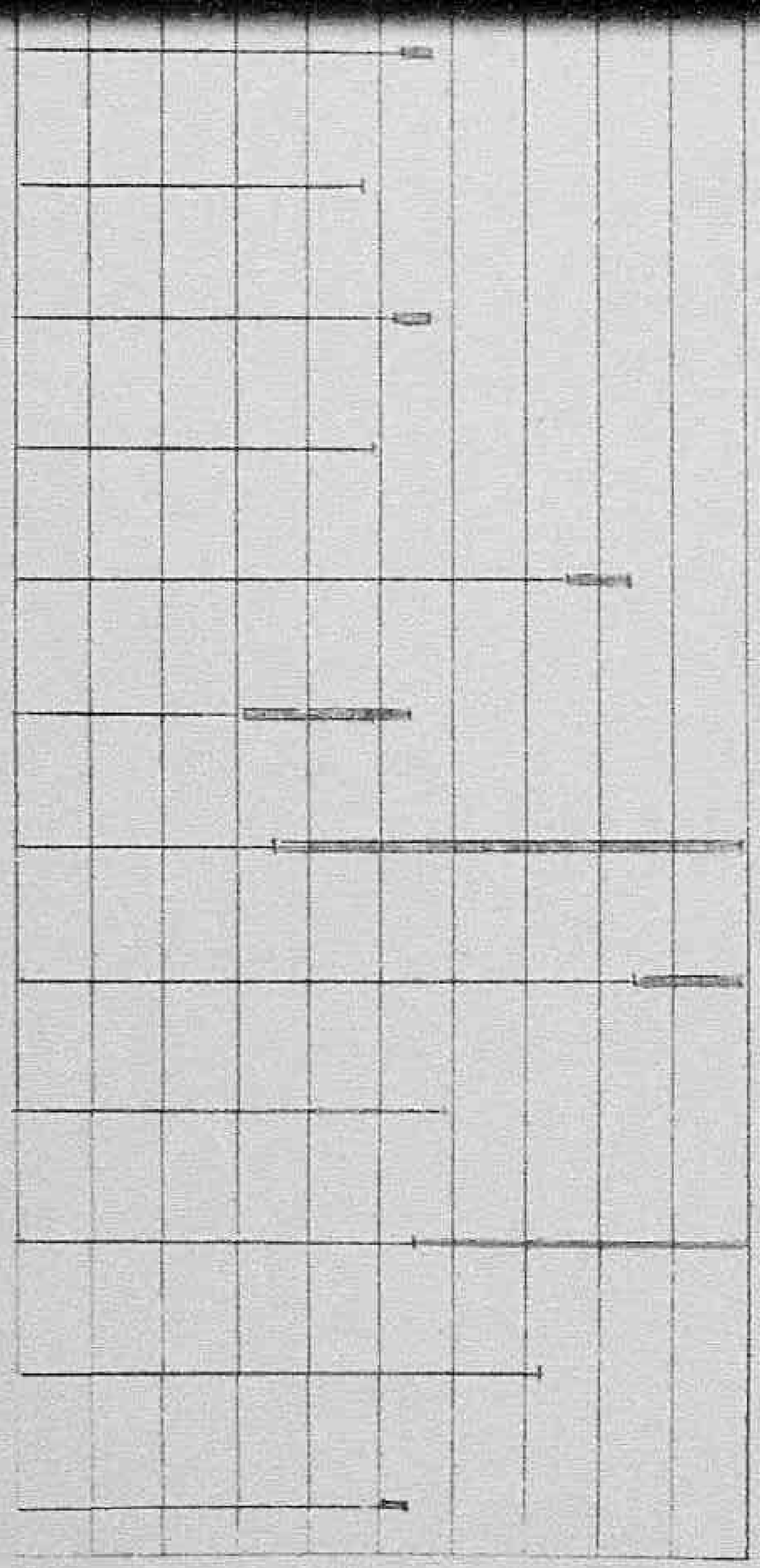

60 kV Terni - Ter di Cuburto(n.R.)
73,5 Km.

60 kV Terni - Ter di Cuburto(n.R.)
73,5 Km.

60 kV Terni - Tiburtino (n.R.)
78 Km.

60 kV Terni - Tiburtino (n.R.)
78 Km.

60 kV Acquarin - Cascavo
68 Km.

30 kV Liscia - Acuto
50 Km.

30 kV Acuto - Fabriano
61 Km.

30 kV Avezzano - Ortucchio
58 Km.

30 kV Pescara - Sulmona
60 Km.

30 kV Pescara - Guardi
44 Km.

60 kV Fabriano - Perugia
53 Km.

30 kV Pescara - Ortucchio
60 Km.

Note: Red shows restoration completed January



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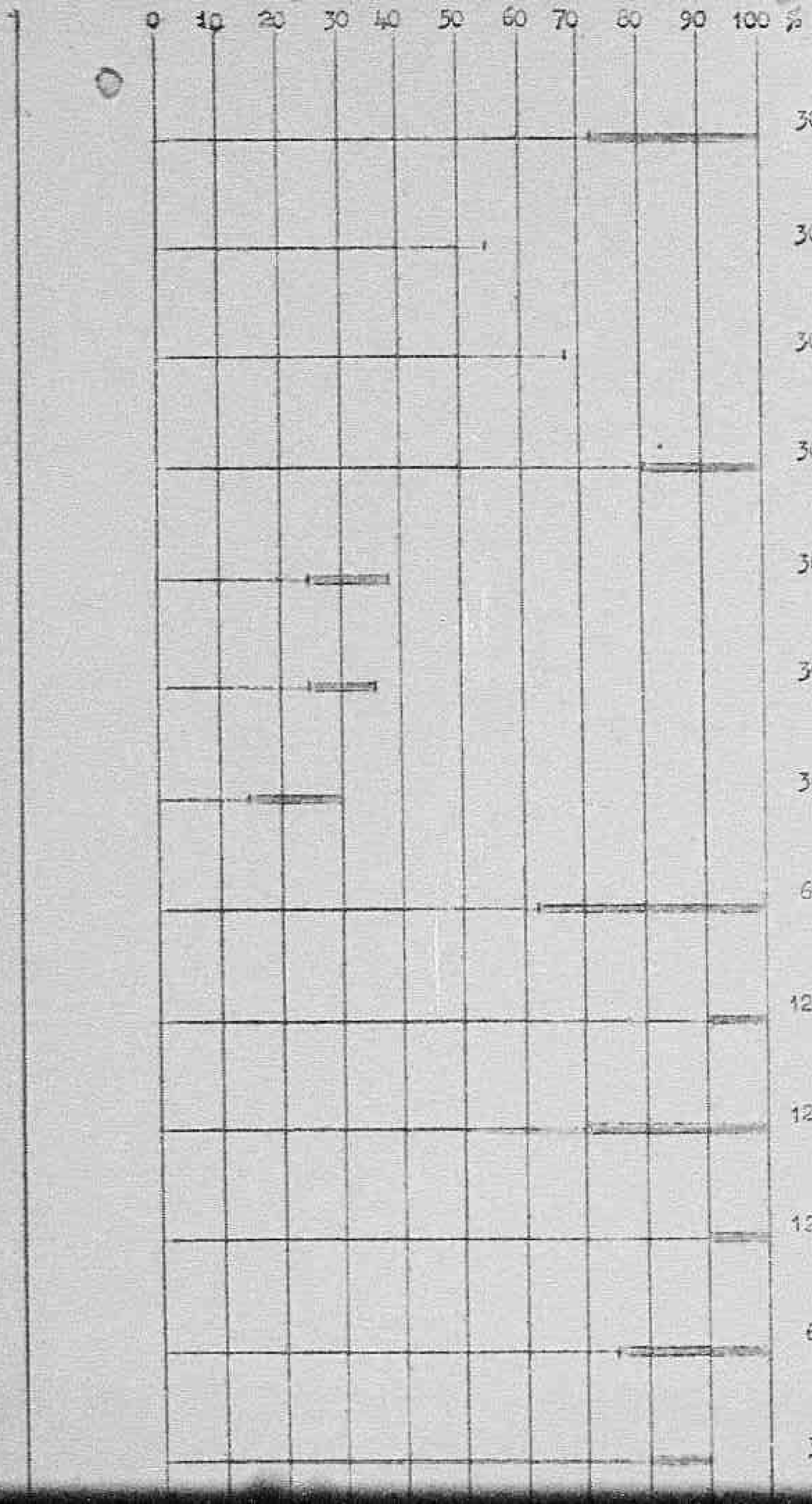
CHART 1 (Continued)




TOTAL LENGTH

30 kV Antrodoco - Bussi
45 Km.

30 kV Rodi so - P. [illegible]
30 Km.

30 kV Cupello - Agnone
40 Km.

30 kV Terumo - Montorio
12 Km.

30 kV Aquila - Montereale
30 Km.

30 kV Livorno - Pratodera
29 Km.

30 kV Foscia - Pontedera
27 Km.

60 kV P.Piovano - Piombino
44 Km.

120 kV S.Romano - Tavarnuzzo
39 Km.

120 kV P.della Rocca - S.Romano
51 Km.

120 kV Prato - Tavarnuzzo
18 Km.

60 kV P.della Rocca - Livorno
66 Km.

30 kV Rifredi - Tavarnuzzo
28 Km.

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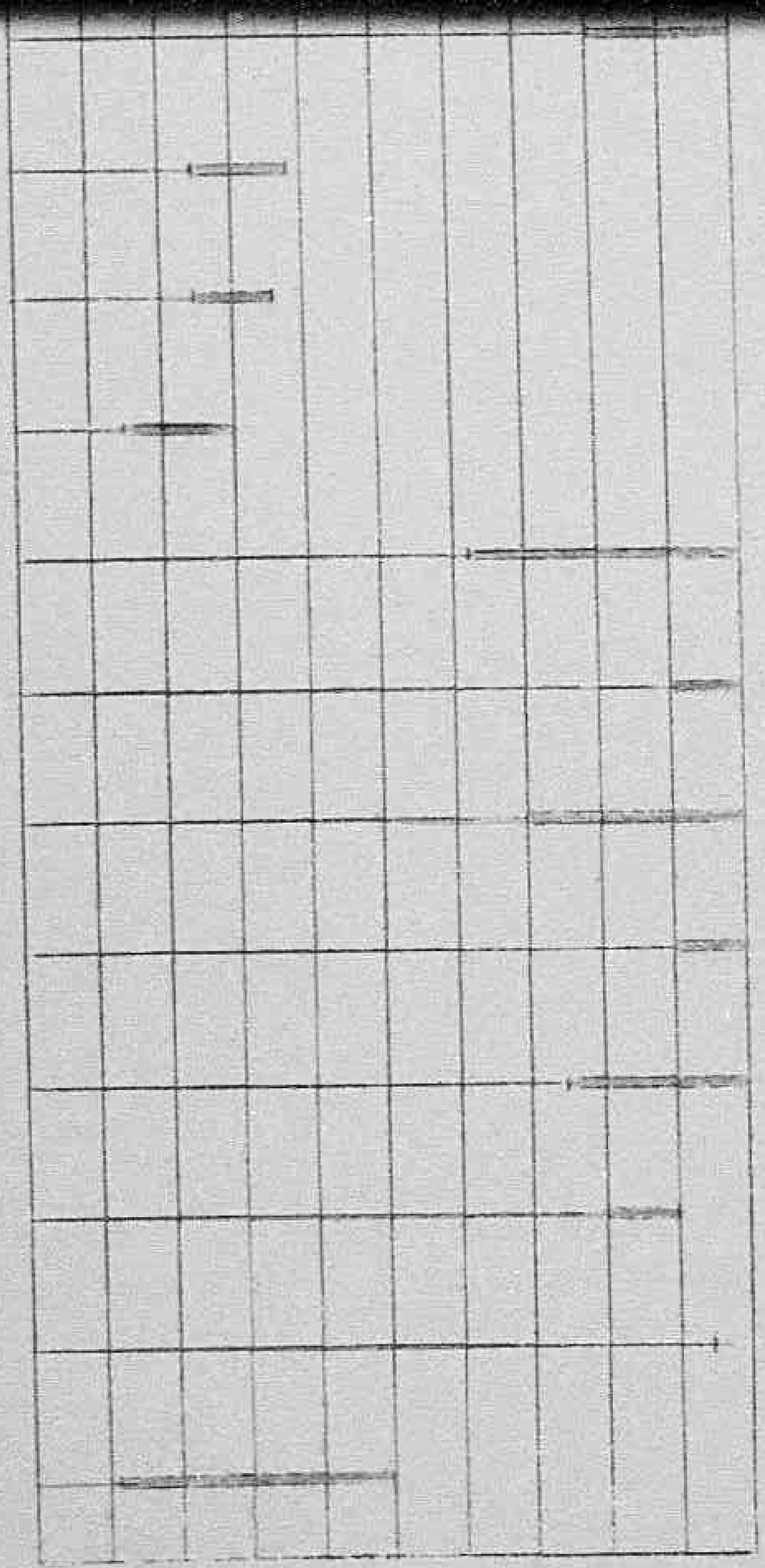

12 Km.

30 kV Aquila - Montecalo
30 Km.

30 kV Livorno - Pontedera
29 Km.

30 kV Pescia - Pontedera
27 Km.

60 kV P.Giovanni - Piombino
41 Km.

120 kV S.Romano - Tavarnuzze
39 Km.

120 kV P.dalla Rocca - S.Romano
51 Km.

120 kV Prato - Tavarnuzze
18 Km.

60 kV P.dalla Rocca - Livorno
66 Km.

30 kV Rifredi - Tavarnuzze
28 Km.

120 kV Maglione - P.di Chianno
36,4 Km.

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150 kV Orte - Terni
28 Km.



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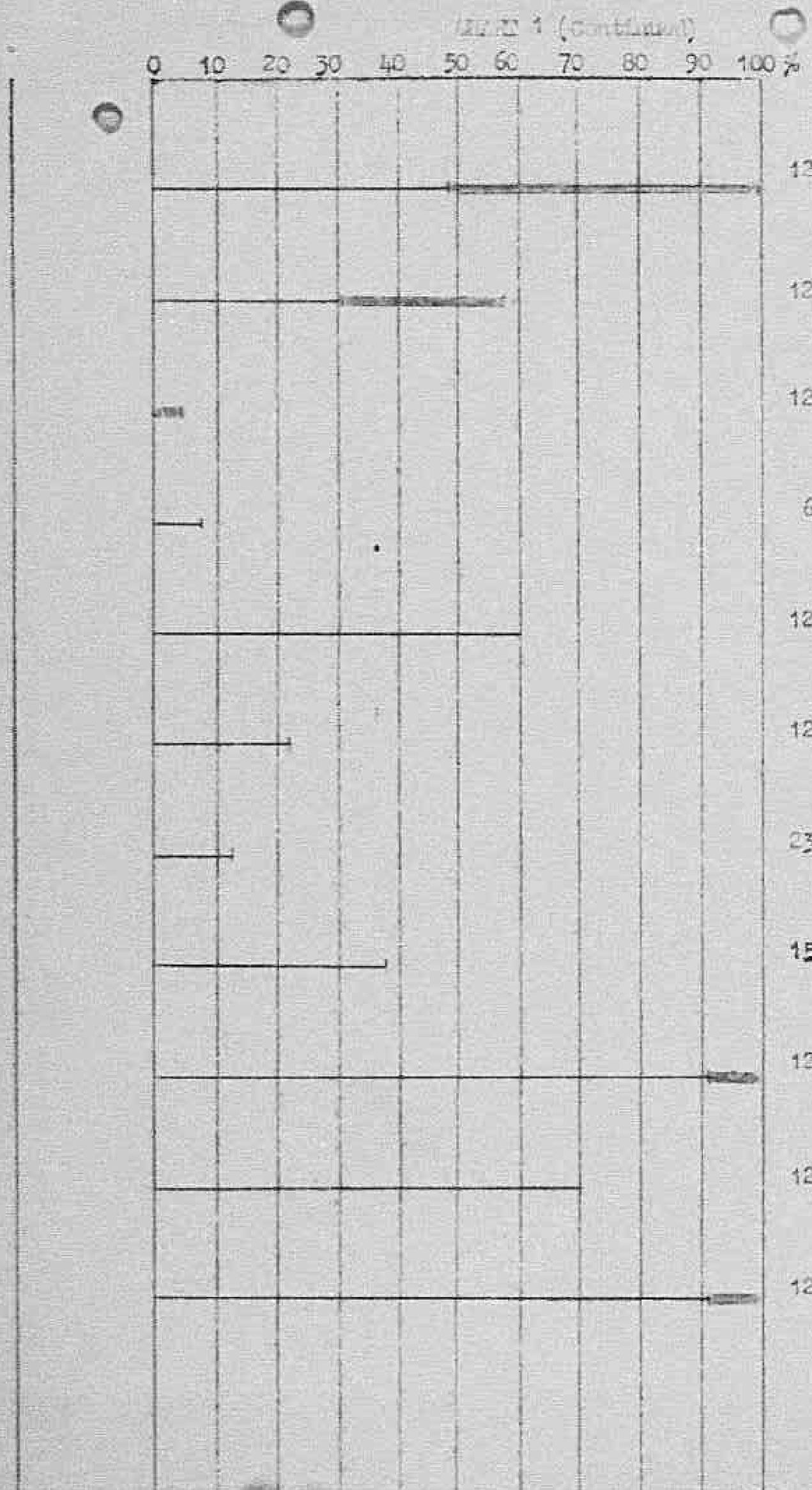
ALLEGATO 1 (continua)




TOTAL LENGTH

120 kV Gianicolo - Foligno
77 Km.

120 kV Foligno - Pelosetta(Nord)
109 Km.

120 kV Foligno - Pelosetta (Sud)
109 Km.

60 kV Pronestina - Nuvosa
124 Km.

120 kV Rifredi - Tavarnuzze
12 Km.

120 kV Rifredi - Cuviglio
52 Km.

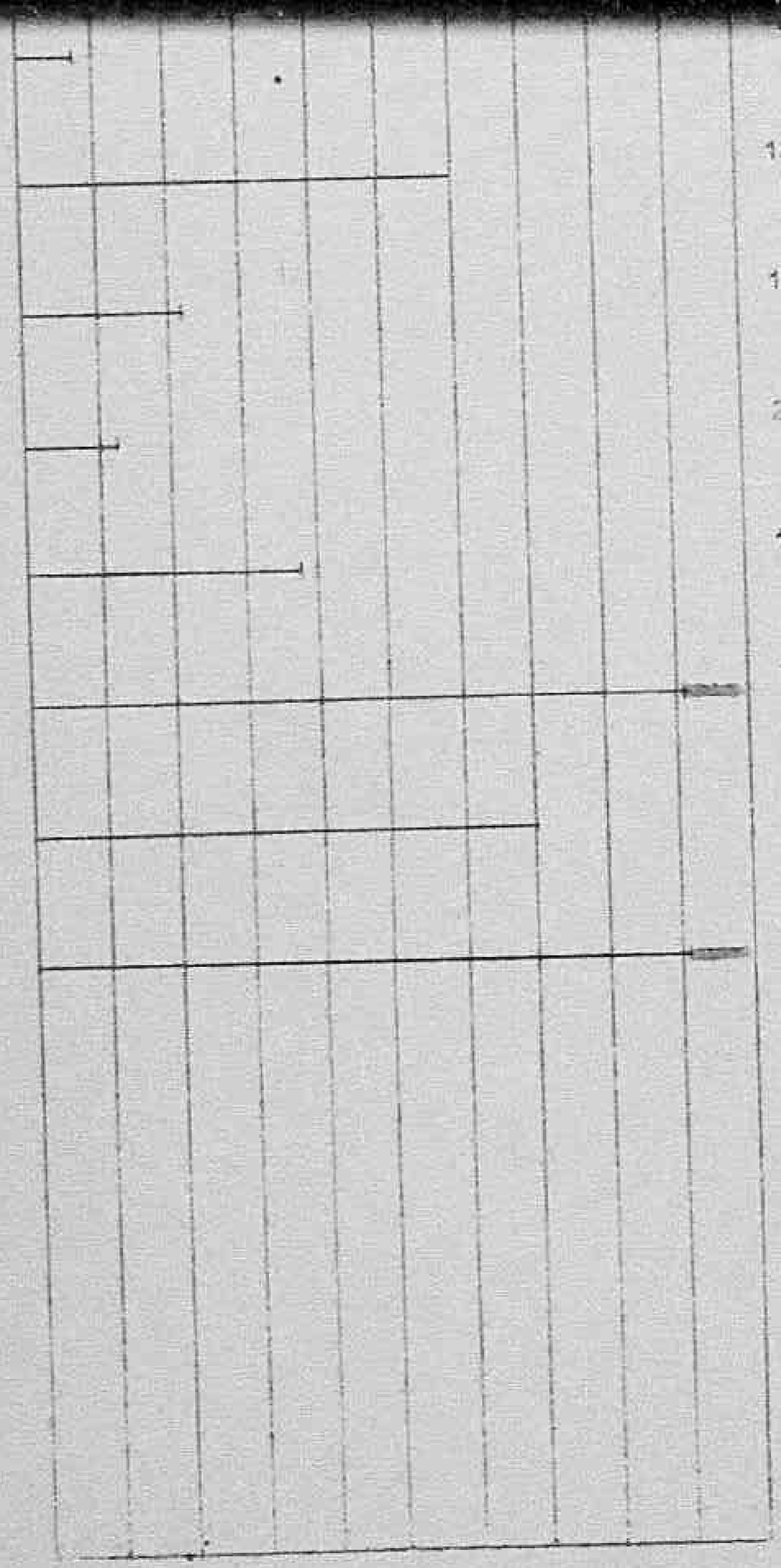
230 kV Casamonica - Popoli
66 Km.

150 kV Cotilia - Pescara 3
103 Km.

120 kV Foligno - Terni
44 Km.

120 kV Foligno - Chiusi
62 Km.

120 kV Terni - Chiusi
77 Km.



124 Km.

120 kV Rifredi - Tavarnuzze
12 Km.

120 kV Rifredi - Cavriglia
53 Km.

230 kV Cappuccille - Poppi
60 Km.

150 kV Cristina - Pescara 3
105 Km.

120 kV Foligno - Terni
44 Km.

120 kV Foligno - Chiusi
62 Km.

120 kV Terni - Chiusi
77 Km.

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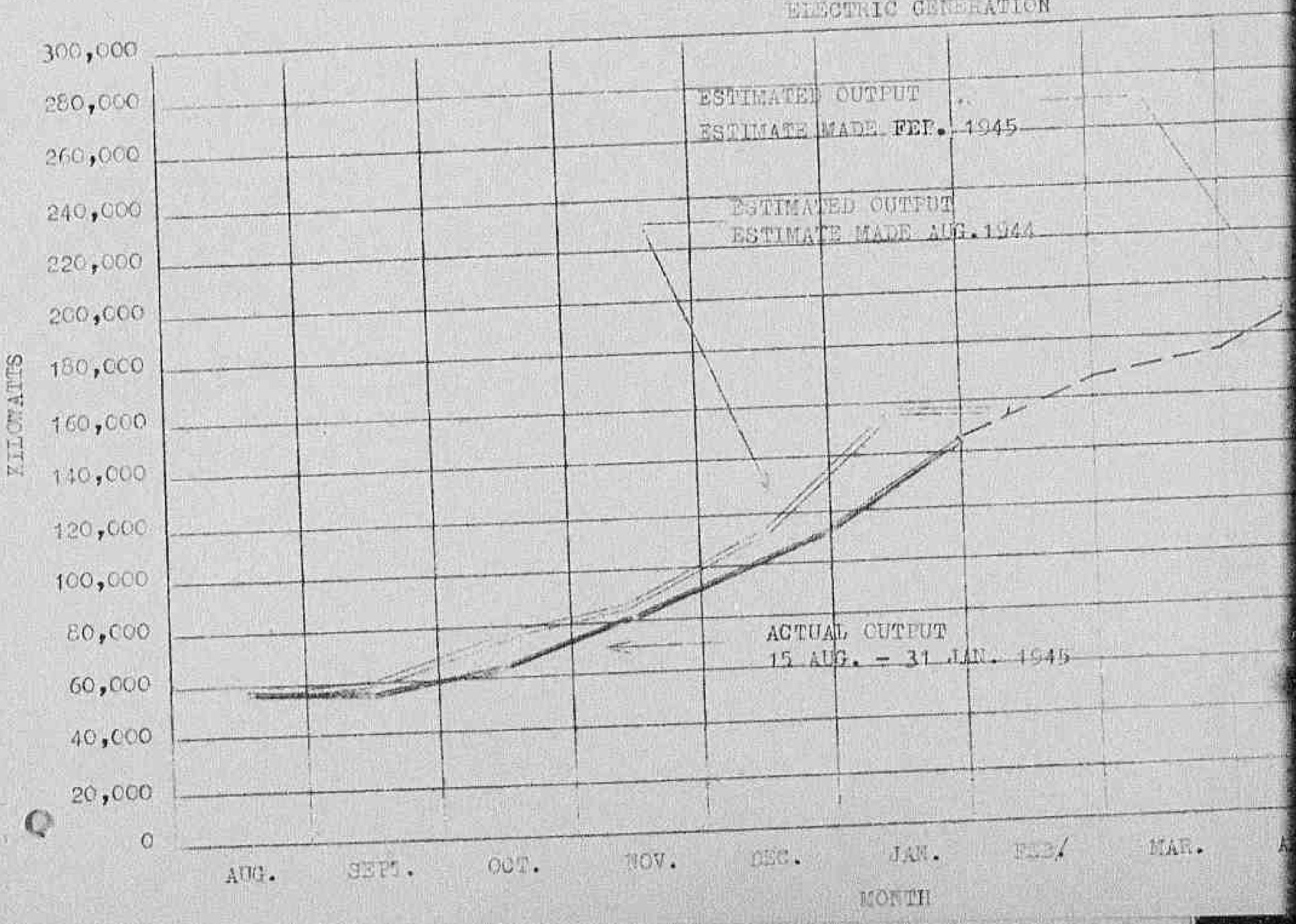
C E N T R A L  I T A L Y

CHART 2

ESTIMATED MONTHLY INCREASE
ELECTRIC GENERATION



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C E N T R A L  I T A L Y

CHART 2

ESTIMATED MONTHLY INCREASE
ELECTRIC GENERATION

Colonel Lapper

[redacted] Allied Commission
Public Works and Utilities Sub-Commission
Electrical Division V5E/lcn

Minutes of Meeting
Electrical Division Officers

The Officers of the Electrical Division - Public Works and Utilities Sub-Commission - met in the Office of the Electrical Division on the afternoon of the 3rd of January 1945.

There were present were:-

Lt.Col. [redacted] Lapper ✓
Major R.J. Berry
Major [redacted] Bell
Major L.C. Price
Major V.C. Fenton
Major T.H. Westwood
Capt. [redacted] Turan
Capt. L.F. Loughlin
Capt. [redacted] Lowman
Capt. [redacted] Ryan
Capt. [redacted] Vampoy
Capt. E.G. Robson
Capt. [redacted] Frandsrhansen
Lt. [redacted] Shrolik

---

Following the taking of several group photographs, the meeting was called to order by Col.Lapper. He stated that every effort should be made to keep in touch with the Regional Electrical Officers and to try to show them that Headquarters is working with them. He stated that the functions of the Regional Electrical Officers are to advise the Regional Commissioner on all electrical matters within the Region. He further said that the rationing of electricity for civilian consumption is the job of the Regional Electrical Officer, but stated that, if difficulties are encountered, an officer from Headquarters would be sent to the area for the purpose of assisting in solving the problem. Col. Lapper continued his remarks by saying that every effort should be made to complete individual rehabilitation projects as soon as possible, irrespective of whether the work was done economically. He cited as an example of this policy that 500 men should be used on a job, if it could be done in a week, rather than to use a month, in having 50 men on it. At the conclusion of this remark he asked that the officers present [illegible] housing problems which they had encountered

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Lt.Col. [illegible] Looker ✓
Major [illegible].J. Berry
Major [illegible]. Bull
Major L.O. [illegible]ice
Major [illegible].S. Dunton
Major [illegible].H. Westwood
Capt. [illegible]. Larsen
Capt. L.F. Laughlin
Capt. [illegible]. Lowdon
Capt. [illegible]. Ryan
Capt. [illegible]. Vannoy
Capt. [illegible].G. Pearson
Capt. [illegible].E. Tronnersbausen
Lt. [illegible]. Shrubb

---

Following the taking of several group photographs, the meeting was called to order by Col.Looker. He stated that every effort should be made to keep in touch with the Regional Electrical Officers and to try to show them that Headquarters is working with them. He stated that the functions of the Regional Electrical Officers are to advise the Regional Commissioner on all electrical matters within the region. He further said that the rationing of electricity for civilian consumption is the job of the Regional Electrical Officer, but stated that, if difficulties are encountered, an officer from Headquarters would be sent to the area for the purpose of assisting in solving the problem. Col. Looker continued his remarks by saying that every effort should be made to complete individual rehabilitation projects as soon as possible, irrespective of whether the work was done economically. He cited as an example of this policy that 500 men should be used on a job, if it could be done in a week, rather than to use a month, in having 50 men do it. At the conclusion of this remark he asked that the officers present join in discussing problems which they had encountered.



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Major Berry discussed the question that securing transportation is one of the most difficult tasks facing the organization at the present time. The transportation desired includes both that needed for the movement of personnel as well as heavy equipment.

Capt. Ryan described some of the difficulties which he had experienced in the Southern Region and said that most of the civil transportation there is now under the control of the Italian Government. He feels that the Italian Government should establish priorities based on the urgency of the work to be done and that the importance of certain vehicles for the electric companies should rank with those used for food transportation. He believes that the trucks should be provided on an 8 day's basis, that is that the trucks are returned to the civil garage each 8 days. He said that following a request which had been made for trucks needed by S.C.A., ten had been received out of the total of 45 requested for the Region. He indicated that these vehicles were obtained only after a long struggle. He believes that a sufficient number of trucks should be available on a few hours notice for emergency occurrences. In answer to a question he said that the trucks now assigned to S.C.A. are kept in the S.C.A. garage. He said that the civilian transportation is so organized in the Southern Region that there are people in Naples, Foggia and Catanzaro.

Capt. Bosron said that a civilian pool at Florence was found unsatisfactory because the owners of the trucks drove their own vehicles and that sometimes they failed to show up for a job.

Capt. Duran mentioned difficulties which he has met in the Pescara area. He said that the electric company there had requested one 8-ton truck and two 4-ton trucks based on the premise that they would be able to find tyres for passenger cars, so that adequate inspection and supervision of the electric facilities could be made. He stated that, while the trucks were obtained, no tyres had yet been forthcoming. He pointed out that there is some question as to whether the trucks must be returned to the civil transport pool each night. He did not know the source of the vehicles, saying that some were military and some were civilian.

Col. Lasser stated that he believed the pool had been arranged for the Food Sub-Commission.

Capt. Duran stated that the present transportation situation in the Pescara area is unsatisfactory and cited the movement of penstock tubes from



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on the urgency of the work to be done and that the importance of certain vehicles for the electric company should rank with those used for food transportation. He believes that the trucks should be provided on an 8 day a' basis, that is that the trucks are returned to the pool garage each 8 days. He said that following a request which had been made for trucks needed by S.H.A.E., ten had been received out of the total of 18 requested for the region. He indicated that these vehicles were obtained only after a long struggle. He believes that a sufficient number of trucks should be available on a ten hours notice for emergency occurrences. In answer to a question he said that the trucks now assigned to S.H.A.E. are kept in the S.H.A.E. garage. He said that the civilian transportation is so organized in the Southern Region that there are pools in Naples, Bagnoli and Caserta.

Capt. Hogan said that a civilian pool in Florence was found unsatisfactory because the owners of the trucks drove their own vehicles and that sometimes they failed to show up for a job.

Capt. Burden mentioned difficulties which had been met in the Pescara area. He said that the electric company there had requested one 8-ton truck and two 1½ ton trucks based on the reason that they would be able to find tyres for passenger cars, so that adequate inspection and supervision of the electric facilities could be made. He stated that, while the trucks were obtained, no tyres had yet been forthcoming. He pointed out that there is some question as to whether the trucks could be returned to the civil transport pool each night. He did not know the source of the vehicles, saying that some were military and some were civilian.

Col. Lauer stated that he believed the pool had been arranged for the Food Sub-Commission.

Capt. Burden stated that the present transportation situation in the Pescara area is unsatisfactory and cited the movement of sprocket tubes from



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He dea to Aventino saying that during the first trip three more days were concerned than originally planned and that the second truck had failed to show up for the job. He pointed out that the tubing to be transported on the trucks had been prepared at Naval Mechanics in Naples under a high priority and that he had hoped to see the material leave Naples as fast as it was fabricated. A log of trucking difficulties is now being prepared, in order that it may be studied to see, whether any of the obstacles may be removed.

Col. Lapper asked if there has been any delay up to now because of poor transportation. Capt. Duran said that there had been delay, but that from now on it would be more serious, because cement has recently become available. Capt. Duran said that the lack of rubber is serious now and mentioned that the load on the 9-ton truck is being curtailed because of the tyres. He does not feel that the Electrical Division can do anything to alleviate the situation at the moment. Col. Lapper said that even the Military is being affected by the tyre situation. Capt. Ryan asked if the 30 tons of tyres reported in route to Italy had arrived. Major Price stated he did not know, but the feeling was expressed that it was likely that very few of the tyres would be available for electric companies.

Capt. Brownershausen said that the Romana Company has tried to have trucks go into the Liri area and that the truckers were unwilling to go there. He stated that conditions will become worse in the coming year because more construction is involved and more remote locations.

Major Bell stated that he has received some heavy transportation from U.S.S. but that he, too, has experienced much difficulty in obtaining the necessary amount. He added that in Tuscany Region every item of transportation must be registered with the civilian transportation organisation in Florence. In summing the transportation situation, Col. Lapper stated that, first the question of obtaining high priorities for electrical companies should be discussed with the Italian Government and, secondly, that before any action is taken in connection with the situation in the Marche - Abruzzi Region, he would await the outcome of Capt.Duran's negotiations in the area.

At this point Col. Lapper mentioned the subject of supplies and Major Berry stated the supply officer might well take action if transportation is unavailable. He then said that there should be some kind of stable arrangement in Headquarters to provide officers with cars for use in locations, in which the officers are operating. These cars should be



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of recovery.

Col. Lapper asked if there had been any delay up to now because of poor transportation. Capt. Duran said that there had been delay, but that from now on it would be more serious, because cement had recently become available. Capt. Duran said that the lack of rubber is serious now and mentioned that the load on the 9-ton truck is being curtailed because of the tyres. He does not feel that the Electrical Division can do anything to alleviate the situation at the moment. Col. Lapper said that even the Military is being affected by the tyre situation. Capt. Ryan asked if the 35 tons of tyres reported in route to Italy had arrived. Major Price stated he did not know, but the feeling was expressed that it was likely that very few of the tyres would be available for electric companies.

Capt. Trommershausen said that the Romana Company has tried to have trucks go into the Liri area and that the truckers were unwilling to go there. He stated that conditions will become worse in the coming year because more construction is involved and more remote locations.

Major Bell stated that he has received some heavy transportation from P.B.S. but that he, too, has experienced much difficulty in obtaining the necessary amount. He added that in Tuscany Region every piece of transportation must be registered with the civilian transportation organisation in Florence. In summering the transportation situation, Col. Lapper stated that, first the question of obtaining high authorities for electrical companies would be discussed with the Italian Government and, secondly, that before any action is taken in connection with the situation in the Marche - Abruzzi Region, he would await the outcome of Capt.Duran's negotiations in the area.

At this point Col. Lapper mentioned the subject of supplies and Major Berry stated the supply officer might well take a vacation if transportation is unavailable. He then said that there should be some kind of stable arrangement in Headquarters to provide officers with cars for use in locations, in which the officers are operating. These cars should be



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well equipped with spare gas cans, spare tubes and tools. Col. Lauer asked if any of the officers had experienced difficulty in obtaining personal transportation.

Capt. Burns replied that one base unit had left Headquarters in a jeep which failed to arrive on time and was lacking a jack, a spare tyre and an extra gasoline can. He added that Major Foden is unable to travel in the Birch Abrupt Region, because he does not have transportation. Capt. Ironmonger-Lugan, who is using Headquarters transportation extensively says always gives 24 hours notice and more, whenever possible when he wants a car, that he has always received a car, but that the vehicle has never arrived on time, nor has the driver, ever been prepared for a long trip out of town.

Col. Lauer stated that he will discuss this situation with Major Birch. Capt. Ironmonger-Lugan stated that he has already mentioned the matter to Major Birch and that he believes that the trouble arises because Major Birch is not in charge of the garage and that there is insufficient co-ordination between Major Birch and the garage. At this time it was mentioned that relations between Headquarters and the Regions are not too close, insofar as garage facilities are concerned, that Regional officers are apparently unhappy at the treatment they receive at Headquarters garages and vice versa.

Major Price stated that he had a problem in connection with supply. Col. Lauer responded that he believes that in view of the great amount of work which is carried on by Major Price and asked that Major Price elaborate on the work which he is doing. Major Price stated that he obtains cement through Military Districts and U.S.E. supply sources and that, although material of this nature is supposed to come from the Italian Government, he has not been successful in obtaining any of it thus far and that the Italian Government has not even replied to letters of inquiry directed to it. He stated that he considers all requests as being of an emergency nature and that he tries to obtain material as quickly as possible. Col. Lauer asked the status if there was any material outstanding at the present time which Major Price's office had been unable to obtain, and there was no reply from the officers, although Capt. Ryan indicated that some silk ribbon is needed. Major Price said that some of this material has recently been shipped from Livorno to Naples. Capt. Ryan said that there are 29 boxes of insulating material en route to Naples but that he does not know the contents of the boxes. It appeared from the discussion which followed that it will be necessary to open the boxes to obtain an inventory of the contents.

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arrived on time, nor has the driver, ever been permitted to make a long trip out of town.

Col. Lesser stated that he will discuss this situation with Major Birch. Capt. Frommershausen stated that he has already mentioned the matter to Major Birch and that he believes that the trouble arises because Major Birch is not in charge of the garage and that there is insufficient co-ordination between Major Birch and the garage. At this time it was mentioned that relations between Headquarters and the Regions are not too close, insofar as garage facilities are concerned, that Regional officers are frequently unhappy at the treatment they receive at Headquarters garages and vice-versa.

Major Price stated that he had a few problems in connection with supply. Col. Lesser responded that he believes that in the realm of the great amount of work which is carried on by Major Price one could duplicate on the work which he is doing. Major Price stated that he obtains cement through Military Districts and A.M.S. supply source and that, although material of this nature is supposed to come from the Italian Government, he has not been successful in obtaining any of it thus far and that the Italian Government has not even replied to letters of inquiry directed to it. He added that he considers all requests as being of an emergency nature and that he tries to obtain material as quickly as possible. Col. Lesser asked three questions if there was any material outstanding at the present time which Major Price's office had been unable to obtain, and there was no reply from the officers, although Capt. Ryan indicated that some silk mica ribbon is needed. Major Price said that some of this material has recently been shipped from Livorno to Naples. Capt. Ryan said that there are 29 boxes of insulating material en route to Naples but that he does not know the contents of the boxes. It appeared from the discussion which followed that it will be necessary to open the boxes to obtain an inventory of the contents.



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Capt. Brouwershausen stated that insulating varnish is badly needed and Major Price answered that there should be plenty in Naples. Capt. Ryan said that a shipment was mailed to come from Leghorn, but had not yet arrived. Major Price, in answer to a question by Major Berry, said that there are certain steel stores which are no longer controlled items, but that releases still have to be given by the military authorities interested in the stock piles involved and, consequently, Major Price asked that he be given any such requests for travel, in order that the material might be obtained expeditously.

Capt. Ryan asked whether any insulators were available from the Ginori Factory in Florence. Major Price replied that a catalogue of the Ginori insulators has arrived in the Sub-Commission, but that he does not have it yet himself. He said that there may be difficulty in shipping insulators stocks to the south. He stated that he believes that rail transportation is not being utilized to the utmost and suggested that the Aventino Anstock tubes previously mentioned in the discussion could have been moved from Naples to Rescaro by rail. Col. Lower asked the procedure for instituting a rail movement. Capt. Ryan replied that in the Southern Region A.M.G. make their own application to the State Railways. Col. Lower suggested that any transportation for areas other than the Southern Region be handled by Major Price.

Major Price remarked that the carbide supply is low.

Major Berry stated that even though some materials are uncontrolled and even though some of the electric companies have been told where to obtain these materials, it has been found necessary to keep the pressure on the companies to purchase them. He sees no other solution but to continue to guide the companies to do this. Major Bell raised the point that the Terni Company has submitted a bill to Leverello for 950,000 lire for a turbine casings. This, he said, is eight times the pre-war price. Major Bell wanted to know if the Allied Commission can control the price. Major Price replied that the Director of Works would probably be interested in this matter, since they are still controlling the Terni plant. He thinks that the Financial Department of the Director of Works would examine this, if it were brought to their attention. Major Price agreed to refer this matter to the Director of Works, if he were given the necessary information. Major Bell stated that Leverello has already received the bill for the casting. Capt. Ryan asked, whether a policy has yet been established for the way in which payment will be made for fuel now being consumed by the steam plants in Italy. Col. Lower and Major Price both stated that no such policy has yet been laid down definitely.

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Capt. Lyon asked whether any insulators were available from the Ginori Factory/factory in Florence. Major Price replied that a catalogue of the Ginori insulators has arrived in the Sub-Commission, but that he does not have it yet himself. He said that there may be difficulty in obtaining insulators stocks to the South. He added that he believes that rail transportation is not being utilized to the utmost and suggested that the Aventino enstock tubes previously mentioned in the discussion could have been moved from Naples to Pescara by rail. Capt. Lyon replied the procedure for initiating a rail movement. Capt. Lyon replied that in the Southern Region S.M.A. make their own application to the State Railways. Col. Bower suggested that any transportation for areas other than the Southern Region be handled by Major Price.

Major Price remarked that the carbide supply is low.

Major Harry stated that even though some materials are uncontrolled and even though some of the electric companies have been told where to obtain these materials, it has been found necessary to keep the pressure on the companies to purchase them. He sees no other solution but to continue to guide the companies to do this. Major Bell raised the point that the Terni Company has submitted a bill to Larderello for 950,000 lire for 4 turbine castings. This, he said, is eight times the pre-war price. Major Bell wanted to know if the Allied Commission can control the price. Major Price replied that the Director of Works would probably be interested in this matter, since they are still controlling the Terni plant. He thinks that the Financial Department of the Director of Works would examine this, if it were brought to their attention. Major Price agreed to refer this matter to the Director of Works, if he were given the necessary information. Major Bell added that Larderello has already received the bill for the casting. Capt. Lyon asked, whether a policy has yet been established for the way in which payment will be made for fuel now being consumed by the steam plants in Italy. Col. Bower and Major Price both stated that no such policy has yet been laid down and lately. (



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Capt. Ryan stated that he believed it should be transferred to the Government here, and Col. Lapper asked that the S.A.C. Company write a letter asking how this matter should be adjusted and then he stated that the letter would be referred to the Italian Government by this Headquarters.

Col. Lapper reported that it is planned to connect all of the generating stations together on one grid system and that he hopes shortly to have Semmo, Terni and S.E.L.A.R. under a master control here at Rome. He stated that this means that this system will operate at 45 cycles and that this frequency was decided upon, because we will be able to transmit energy to the North, at 42 cycles wrong. Col. Lapper warned that some difficulties will be encountered in putting this scheme in operation. He said that, when this system is unified, it will be operated with sufficient margin to absorb the failure of the largest machine running. Capt. Ryan said that in the South electric allocations have not been made equal to the generating capacity, but that there are places where the local allocations are being exceeded. He thought that there should be a limit for the system, but not for localities. Col. Lapper said that when the system is unified, feeders previously designated will be opened if the system becomes overloaded. At this point Capt. Ryan parenthetically remarked that there are presently 129 million KWh. represented in the water stored at Silo. Col. Lapper suggested that perhaps the Cristoforo plant could operate a half load in February and full load in March. Major Westrood asked if electrical rehabilitation within the Region is outside the knowledge of the Regional Engineer concerned. Col. Lapper stated that the Regional Engineer is kept advised of pertinent developments.

At this point Cols. Jenny and Rhodes entered the room and for their benefit Col. Lapper summarized the activities of the meeting. He said that one outstanding point raised by Major Price, who brought out that the railroad is a good means of transportation. Another point is that the electric companies could use their own vehicles, if tyres were available; third, that transportation is handled by civilian organizations and he believes that it will be necessary for the Government to grant high priorities for vehicles needed by electric companies.

Col. Rhodes stated that a contract in the Sub-Commission is the fact that Col. Thompson has successfully controlled his work but that the work of the Electrical Division apparently must be controlled under one head.



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Major Benton stated the belief that no reason why the decentralisation has been successful in the case of Railway rehabilitation, is the fact that the Engineering officers charged with this work have succeeded in obtaining personal contact, whereas electrical officers in the same area have been unsuccessful in so doing.

Col. Jenny in opening his remarks stated that centralisation of electricity rehabilitation began in the early days of the Allied Commission in Sicily and was the result of an order signed by General McSherry in October 1943. He stated that electricity was a national problem and is not regional or provincial.

He then continued by saying that everyone was aware of what has been done by the Electrical Division of the Public Works and Utilities Sub-Commission. He feels that the work of that Division stands amongst the highest in the Commission and said that this Sub-Commission was one of a very few which have received special commendation from the Chief Commissioner.

V.S. Benton
Major Infantry
Operation and Transmission Department
Electrical Division.

4. January 1945

Distribution:
Lt.Col. L.A. Jenny
Lt.Col. G.A. Rhodes
Lt.Col. F.M. Lester
Major J. Surrey
Major A.A. Ball
Major L.G. Price
Major V.S. Benton
Major F.H. Westwood
Capt. A. Dorun
Capt. L.W. Laughlin
Capt. H. London
Capt. H.A. Ryan
Capt. J.H. Tansley
Capt. E.G. Hansen
Capt. E.C. Trumbrachauser
Lt. D. Shrill.



Declassified E.O. 12356 Section 3.3/NND No. 785019

Return to Lt. Col. Hooper 4 Ln.
P.L. & U Sec. Con

HEADQUARTERS ALLIED COMMISSION
A.P.O. 394
PUBLIC WORKS AND UTILITIES SUB-COMMISSION
Electrical Division

Lt Col Hooper
Returned
Aug 1944

REPORT ON THE PROGRESS
of
RESTORATION OF ELECTRICAL PLANT

(a) - Sardinia
(b) - Sicily
(c) - Italy (Southern)
(d) - Italy (Central)

---

SARDINIA

The electrical generating plant in Sardinia is capable of meeting the demand of the island. A.C. Electrical Utility Officers were drawn in July 1944.

The electrical company will require assistance in connection with the supply of materials for repairs to plant until such time as free trading is established.

---

SICILY

Owing to age and lack of maintenance of the steam electrical generating plant in Sicily it is not possible to give the island a full supply of electricity, however a reasonable supply is available but a rationing control must be continued. A.C. Electrical Utility Officers were withdrawn in August 1944. The electrical company will require assistance in connection with the supply of materials for repairs to plant until such time as free trading is established.

Declassified E.O. 12356 Section 3.3/NND No. 785019

of

RESTORATION OF ELECTRICAL PLANT

(a) - Sardinia
(b) - Sicily
(c) - Italy (Southern)
(d) - Italy (Central)

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SICILY

Owing to age and lack of maintenance of the steam electrical generating plant in Sicily it is not possible to give the island a full supply of electricity, however a reasonable supply is available but a rationing control must be continued. A.C. Electrical Utility Officers were withdrawn in August 1944. The electrical company will require assistance in connection with the supply of materials for repairs to plant until such time as free trading is established.



Declassified E.O. 12356 Section 3.3/NND No. 785019

SOUTHERN ITALY

Particulars of Electrical Generating Plant in Southern Italy and programme of restoration assuming that orders, for replacement of the plant which is totally destroyed, are placed on 1st June 1945 and that the plant will be in operation by 1st January 1947.

- - -

S u m m a r y

| | Kilowatts |
|---|---|
| (a) - Original generating capacity ..... | 425,340 |
| (b) - Generating capacity at December 1944 ..... | 188,600 |
| (c) - Capacity of generating plant which can be repaired during 1945 ..... | 38,500 |
| (d) - Capacity of generating plant totally destroyed . | 198,240 |

- - -

Estimated completion dates for repaired plant and installation of new plant

| | Jan. 1945 KW | Mar. 1945 KW | Oct. 1945 KW | Dec. 1945 KW | Jan. 1947 KW |
|---|---|---|---|---|---|
| (a) Repaired plant | 9,500 | 6,000 | 12,000 | 11,000 | - |
| (b) New plant | - | - | - | - | 198,240 |
| (c) Total additional capacity | 9,500 | 6,000 | 12,000 | 11,000 | 198,240 |
| (d) Cumulative total additional capacity | 9,500 | 15,500 | 27,500 | 38,500 | 236,740 |

(It is assumed that all transmission line work and sub-station

Declassified E.O. 12356 Section 3.3/NND No. 785019

(a) - Original generating capacity ..... 425,340

(b) - Generating capacity at December 1944 ..... 183,600

(c) - Capacity of generating plant which can be repaired during 1945 ..... 38,500

(d) - Capacity of generating plant totally destroyed . 198,240

- - -

Estimated completion dates for repaired plant and installation of new plant

| | Jan. 1945 KW | Mar. 1945 KW | Oct. 1945 KW | Dec. 1945 KW | Jan. 1947 KW |
|---|---|---|---|---|---|
| (a) Repaired plant | 9,500 | 6,000 | 12,000 | 11,000 | - |
| (b) New plant | - | - | - | - | 198,240 |
| (c) Total additional capacity | 9,500 | 6,000 | 12,000 | 11,000 | 198,240 |
| (d) Cumulative total additional capacity | 9,500 | 15,500 | 27,500 | 38,500 | 236,740 |

(It is assumed that all transmission line work and sub-station plant will be restored during the restoration of the generating plant).

Stations under repair

Lete - Removal from Matese 1 - 1st April
Arentino - Repaire G.o - 1st May
Calore - Repair S.o - 15th Jun

1. Calore Unit 5.0 } Ready for Shipment
1. Alto Belice 3.5 }

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## CENTRAL ITALY

Particulars of electrical generating plant in Central Italy and programme of restoration assuming that orders for replacement of the plant which is totally destroyed are placed on 1st June 1945 and that the plant will be in operation by 1st January 1947.

- - -

### S u m m a r y

| | Kilowatts |
|---|---|
| (a) - Original generating capacity ..... | 905,900 |
| (b) - Generating capacity December 1944 ..... | 112,580 |
| (c) - Capacity of generating plant which can be repaired during 1945 ..... | 315,000 |
| (d) - Capacity of generating plant totally destroyed | 478,320 |

- - -

Estimated completion for repaired plants and installation of new plant

| | Jan. 1945 KW | Mar. 1945 KW | Oct. 1945 KW | Dec. 1945 KW | Jan. 1947 KW |
|---|---|---|---|---|---|
| (a) Repaired plant | 45,500 | 69,450 | 120,250 | 79,800 | - |
| (b) New plant | - | - | - | - | 478,320 |
| (c) Total additional capacity | 45,500 | 69,450 | 120,250 | 79,800 | 478,320 |
| (d) Cumulative total additional capacity | 45,500 | 114,950 | 235,200 | 315,000 | 793,320 |

(It is assumed that all transmission line work and sub-station plant will be restored during the restoration of the generating plant).

(a) - Original generating capacity ..... 905,900

(b) - Generating capacity December 1944 ..... 112,580

(c) - Capacity of generating plant which can be repaired during 1945 ..... 315,000

(d) - Capacity of generating plant totally destroyed 478,320

- - -

Estimated completion for repaired plants and installation of new plant

| | Jan. 1945 KW | Mar. 1945 KW | Oct. 1945 KW | Dec. 1945 KW | Jan. 1947 KW |
|---|---|---|---|---|---|
| (a) Repaired plant | 45,500 | 69,450 | 120,250 | 75,800 | - |
| (b) New plant | - | - | - | - | 478,320 |
| (c) Total additional capacity | 45,500 | 69,450 | 120,250 | 75,800 | 478,320 |
| (d) Cumulative total additional capacity | 45,500 | 114,950 | 235,200 | 315,000 | 793,320 |

(It is assumed that all transmission line work and sub-station plant will be restored during the restoration of the generating plant).



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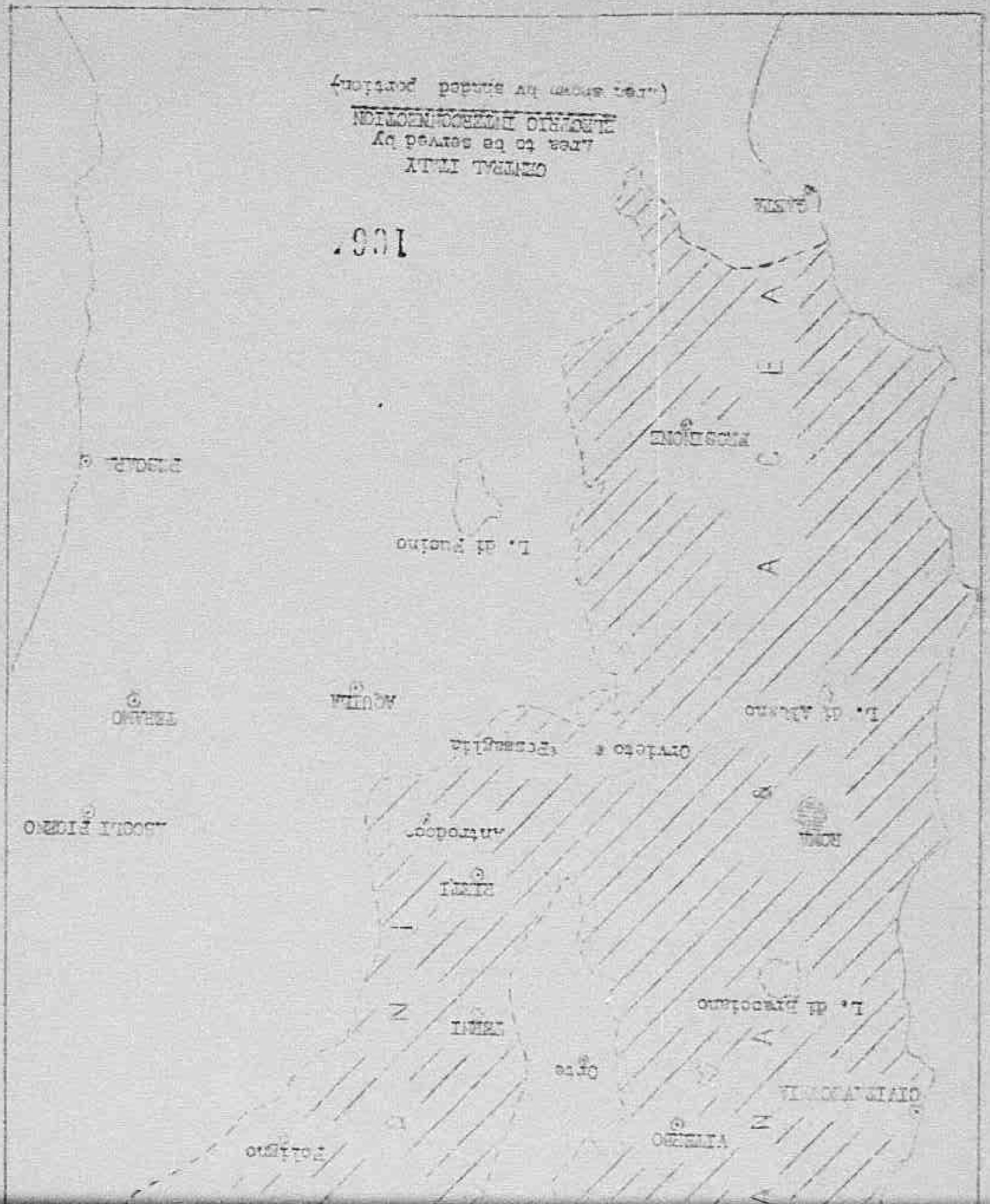

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

ELECTRICAL DIVISION

# RESTORATION OF ITALIAN ELECTRICAL PLANT AND TRANSMISSION SYSTEM

## PROGRESS REPORT FOR MONTH OF DECEMBER 1944

W.M. LIFTER LT. COL.
Chief Electrical Division

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Declassified E.O. 12356 Section 3.3/NND No. 785019

C E N T R A L  I T A L Y

TABLE "A"

Installed generating capacity and present output of generating stations in operation on the grid system as of 31 December 1944.

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| ACQUCRIA | 37,300 | 3,400 | War damage. |
| ANCONA TH. | 4,240 | - | War damage. |
| ANGHIARI | 1,308 | - | War damage. |
| ANVERSA PRINCIPALE | 30,000 | - | War damage. |
| ARCI | 8,320 | 4,100 | Insufficient water. |
| ARLLA | 3,500 | - | Enemy hands. |
| AURELIA TH. | 2,800 | - | War damage. |
| AVENTINO | 9,600 | - | War damage. |
| BASTARDO TH. | 15,000 | - | War damage. |
| BOLOGNOLA | 2,760 | 1,320 | Insufficient water. |
| BORGO (PIORACO) | 1,182 | - | No report. |
| BUSSI SUL TIRINO II S. | 1,500 | - | No report. |
| CALISTRO | New const. | - | War damage. 12,960 KW |
| CANTERNO | New const. | - | Being completed 12,000 KW |
| CARESSAI | 1,048 | 360 @ | Incomplete report. |
| CASTELLANO | 6,720 | - | War damage. |
| CASTELLARLA | 14,000 | - | War damage. |

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| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| ACQUORIA | 57,300 | 3,400 | War damage. |
| ANCONA TH. | 4,240 | - | War damage. |
| ANGHIARI | 1,308 | - | War damage. |
| ANVERSA PRINCIPALE | 30,000 | - | War damage. |
| ARCI | 8,320 | 4,100 | Insufficient water. |
| ARLI. | 3,500 | - | Enemy hands. |
| AURILIA TH. | 2,800 | - | War damage. |
| AVIATICO | 9,600 | - | War damage. |
| BASTARDO TH. | 15,000 | - | War damage. |
| BOLOGNOL. | 2,760 | 1,320 | Insufficient water. |
| BORGO (PIOR.CO) | 1,182 | - | No report. |
| BUSSI SUL TIRINO II S. | 1,500 | - | No report. |
| CANILETRO | New const. | - | War damage. 12,960 KW |
| CASTELNUOVO | New const. | - | Being completed 12,000 KW |
| CASSINI | 1,048 | 360 @ | Incomplete report. |
| CASTELLANO | 6,720 | - | War damage. |
| CASTELLAR.M. | 14,000 | - | War damage. |
| CASTELNUOVO GARFAGNA. | 7,200 | - | Enemy hands. |
| CASTELNUOVO SABBIONI TH. | 20,400 | - | War damage. |
| CASTELNUOVO V.L CECINA TH. | 48,000 | - | War damage. |
| CEPRANO | 12,360 | 3,500 @ | Unit transferred. |

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@ ESTIMATED - 2 -

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TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| CERVARA | 9,000 | 7,300 | Aged machines. |
| COLLESCIPOLI | 9,000 | - | War damage. |
| CORNIACCHIA | 9,120 | 5,900 | Insufficient water. |
| CORVINO (PONTE COSI) | 4,780 | - | Enemy hands. |
| CUCILIA | 54,720 | - | War damage. |
| DI CARSO | 1,800 | 550 @ | Incomplete repairs. |
| FAEN. I | 19,200 | - | War damage. |
| FAEN. II | 9,000 | 4,000 | War damage. |
| FORANO LIRI (GENERALI) | 2,080 | - | War damage. |
| FORNICA | 4,800 | - | War damage. |
| FUCILO | 2,920 | - | War damage. |
| GALILEO | 137,600 | - | War damage. |
| GALLICANO | 22,000 | - | War damage. |
| GROTTA SUPERIORE | 14,000 | - | War damage. |
| GUADAGNOLO (LIRI) | 7,240 | - | War damage. |
| LAVA DEI PELLI | 1,080 | - | War damage. |
| LAURENTINO I St. | 6,000 | 2,000 | War damage. |
| LAURENTINO II St. | 72,000 | - | War damage. |
| LEPORINO St. | 42,000 | - | War damage. |
| LEPORINO (U.S. ARMY) | Portable | 1,600 @ | Portable equipment 4 x 400 KW units. |

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| | | | |
|---|---|---|---|
| COLLEGNOTE | 9,000 | - | War damage. |
| CORNIGLIA | 9,120 | 5,500 | Insufficient water. |
| CORPIGLIO (POZZO OSSI) | 4,700 | - | Heavy hauls. |
| CORTILIA | 54,720 | - | War damage. |
| DE CESSO | 1,300 | 550 @ | Incomplete repair. |
| FARINI I | 19,200 | - | War damage. |
| FARINI II | 9,000 | 4,000 | War damage. |
| FORNOVO LIRI (CENTRALE) | 2,400 | - | War damage. |
| FOSSOMPA | 4,800 | - | War damage. |
| FRIGO | 2,820 | - | War damage. |
| GALILEO | 157,500 | - | War damage. |
| GALLIGNO | 22,000 | - | War damage. |
| GARDA SUPERIORE | 14,000 | - | War damage. |
| GARDONENGO (LIDO) | 7,240 | - | War damage. |
| LIDO DEI PINI T | 1,080 | - | War damage. |
| LIVORNO I S. | 6,900 | 2,950 | War damage. |
| LIVORNO II S. | 72,000 | - | War damage. |
| LIVORNO S. | 42,000 | - | War damage. |
| LIVORNO (U.S. ARMY) | Portable | 1,600 @ | Portable equipment 4 x 400 KW units. |
| MADDIA | 6,000 | - | War damage. |
| MARCHE | 17,900 | - | War damage. |
| MOLINO NUOVO | 1,050 | - | War damage. |
| MORICO I S. | 1,000 | - | War damage. |

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# CENTRAL ITALY

TABLE "A" (Continued)

| Name of Station | Installed Generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| MORINO II S. | 1,666 | - | War damage. |
| MORINO | 12,800 | - | War damage. |
| MOTRATO | 2,650 | - | War damage. |
| NERA MONTORO | 19,600 | 15,250 | Insufficient water. |
| NORCIA | 66,000 | - | War damage. |
| PAVIA | 12,800 | - | War damage. |
| PESCO | 4,500 | 3,500 | |
| PIAZZALLI (SERVIZI) | 2,000 | 1,000 | War damage. |
| PISCARA I | 9,920 | - | War damage. |
| PISCARA II | 14,520 | - | War damage. |
| PISCARA III | 20,500 | - | War damage. |
| PISCARA IV | 20,800 | - | War damage. |
| PITIGLIANO (GIGIO) | 4,000 | - | War damage. |
| PIZZARUCCI | 1,920 | 1,900 @ | |
| PIAN DELLA NORA | 33,600 | 1,000 @ | War damage. |
| PIANCIANELLA | 1,870 | 1,000 | |
| PIERANTELLI TR. | 16,300 | - | War damage. |
| PIGNANO TR. | 6,960 | - | War damage. |
| POLVERIFICIO PONTE LIRI | 1,850 | - | War damage. |
| [illegible] | 2,000 | - | War damage. |

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| | | | |
|---|---|---|---|
| MORLUPO II S. | 1,656 | - | War damage. |
| MORLUPO | 12,800 | - | War damage. |
| MOZZANO | 2,850 | - | War damage. |
| NERA MONTORO | 19,600 | 15,250 | Insufficient water. |
| PANICO | 30,000 | - | War damage. |
| PAVONA | 12,800 | - | War damage. |
| PEDACE | 4,500 | 3,500 | |
| PELAGALLI (STIFFLER) | 2,000 | 1,000 | War damage. |
| PESCARA I | 2,220 | - | War damage. |
| PESCARA II | 11,520 | - | War damage. |
| PESCARA III | 20,500 | - | War damage. |
| PESCARA IV | 20,800 | - | War damage. |
| PETTORANO (GILLO) | 4,000 | - | War damage. |
| PIAMARUCCI | 1,220 | 1,900 ? | |
| PIAN DELLA NOCE | 33,600 | 1,000 ? | War damage. |
| PIANCONELLA | 1,870 | 1,500 | [illegible] |
| PIGNATTARO TI. | 16,300 | - | War damage. |
| PIOMBINO TI. | 6,960 | - | War damage. |
| POLVERIFICIO POSTALI LIRI | 1,350 | - | War damage. |
| PORTUENSE (S.GIOVANNI INC.) | 9,000 | - | War damage. |
| POMEZIA III S. (STAZIONE) | 7,100 | - | War damage. |
| POMEZIA TI. | 4,430 | - | War damage. |
| PRATICO | 1,175 | - | War damage. |
| PRATI | 2,100 | - | War damage. |
| PROVIDENZA | Not const. | - | Proposed 120,000 KW |



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Declassified E.O. 12356 Section 3.3/NND No. 785019

CENTRAL ITALY

TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| RIETI TH. (Non Grid) | 2,000 | 840 | Coal Supply & Repairs |
| RIFREDI TH. | 7,000 | - | War damage. |
| RICORDI'O (PISTOIA) (Non Grid) | 3,400 | 1,400 @ | War damage. |
| ROCCANTA | 3,400 | - | Enemy hands. |
| ROMA TH. | 51,250 | 29,000 | Maint. & Repairs. |
| ROSIGNANO TH. | 9,344 | 3,000 @ | War damage. |
| SALISANO | 16,000 | - | War damage. |
| S.ELENA | 1,360 | 160 | War damage. |
| S.GIACCHIO | New const. | - | Proposed 150,400 KW |
| S.SAVINO (SRS) | 1,408 | 400 | |
| SORIANO | 8,000 | 4,000 | Insufficient water. |
| SYLVIA | 3,360 | - | War damage. |
| STILANO | 1,080 | - | Enemy hands. |
| TERNI | 1,200 | - | Enemy hands, |
| TIVOLI | 12,600 | - | War damage. |
| TORINO (Non Grid) | 2,450 | 200 | |
| TORRE | 7,760 | 3,200 | War damage. |
| TUNIA | 30,000 | - | Enemy hands. |
| TIVOLI | 1,100 | 900 | |

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| | | | |
|---|---|---|---|
| RIETI TH. (Non Grid) | 2,000 | 840 | Coal Supply & R. |
| RIFREDI TH. | 7,000 | - | War damage. |
| RIORDINO (FIRENZE) (Non Grid) | 3,400 | 1,400 @ | War damage. |
| ROCCHETTA | 3,400 | - | Enemy hands. |
| ROMA TH. | 51,250 | 29,000 | Maint. & Repairs. |
| ROSIGNANO TH. | 9,344 | 3,000 @ | War damage. |
| SALISANO | 16,000 | - | War damage. |
| S.ELPIA | 1,360 | 150 | War damage. |
| S.GIACOMO | Near coast. | - | Proposed 150,400 KW |
| S.SAVINO (SNR) | 1,408 | 400 | |
| SCANDALE | 8,000 | 4,000 | Insufficient water. |
| SILVIA | 3,360 | - | War damage. |
| SILLANO | 1,080 | - | Enemy hands. |
| SINICO | 1,200 | - | Enemy hands, |
| SPIRITO | 12,680 | - | War damage. |
| SPOLETO (Non Grid) | 2,450 | 200 | |
| SUSSICO | 7,760 | 3,200 | War damage. |
| TALLA | 30,000 | - | Enemy hands. |
| TERNI SUD | 1,100 | 900 | |
| TERNI TERNIC. | 2,000 | - | War damage. |
| TERNI PLANT | 1,500 | - | Generator burned out. |
| TERNI STEEL (Non Grid) | 1,454 | 476 | |
| VENAFRO/PIGNELLO | 15,520 | - | War damage. |
| VENZA | 2,640 | 2,200 | |
| VULCI | 3,520 | 1,200 | |

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@ ESTIMATED - 5 -

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TABLE "A" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| ZECCA I | 1,775 | - | War damage. |
| ZECCA II | 1,200 | - | War damage. |
| SMALL PLANTS | 61,695 | 7,566 | 42 Plants operating. |
| MOLISE | | | |
| CAPO VOLTURNO | 20,000 | - | War damage. |
| LETTE (PR. C. S.) | 9,400 | - | War damage. |
| PONTEROTTO | 2,240 | - | War damage. |
| S.M. SEDILO | 5,000 | - | War damage. |
| S. SPIRITO | 1,250 | - | War damage. |
| SELLA. | 1,070 | - | War damage. |
| ALIECHE | 1,000 | - | War damage. |
| TOTAL ..... | 1,302,725 | 114,652 | |



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| | | | |
|---|---|---|---|
| ZECCA I | 1,775 | - | War damage. |
| ZECCA II | 1,200 | - | War damage. |
| SMALL PLANTS | 61,695 | 7,566 | 42 Plants operating. |
| | | | |
| APULIA | | | |
| CAPO VOLTURNO | 20,000 | - | War damage. |
| LUCE (PR. L. SCAFATI) | 9,400 | - | War damage. |
| PONTEROTTO | 2,240 | - | War damage. |
| S.M.GISIDO | 5,000 | - | War damage. |
| S.SPIRITO | 1,250 | - | War damage. |
| SCLAFA | 1,070 | - | War damage. |
| VILLESCIPI | 1,000 | - | War damage. |
| TOTAL ..... | 1,382,725 | 114,652 | |

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CENTRAL ITALY

TABLE "E"

Schedule of Generator Capacity in service and being repaired 31 December 1944

| Name of Station | Plant in operation 31 Dec. 44 | 1945 31 Jan. | 28 Feb. | 31 March | 30 April | 31 May | 30 June |
|---|---|---|---|---|---|---|---|
| ACQUORIA | 3,500 | | | | 4,000 | | |
| ARDI | 8,320 | | | | | | |
| BOLOGNOLA | 2,760 | | | | | | |
| CARAGGAI | 728 | | | | | | |
| CEPRANO | 3,500 | | | | 5,500 | | |
| CERVARA | 9,000 | | | | | | |
| CORNIGLIA | 9,120 | | | | | | |
| DE CECCO | 600 | | | | | | |
| FAFL 2 | 4,500 | | | | | | |
| LARDERELLO 1 | 3,900 | 700 | | | | | |
| LIEBHERR (U.S.A.) | 1,600 | | | | | | |
| NERA MONTORO | 19,600 | | | | | | |
| PELSO | 4,500 | | | | | | |
| PELAGALLI | 1,000 | | | | | | |
| PLINIANUCCI | 1,920 | | | | | | |
| PIAN DELLA ROCCA | 14,000 | | | 11,000 | | | |
| PIANCASTELLA | 1,870 | | | | | | |
| RIETI TH. | 1,000 | | | | | | |
| RIORDINO | 1,400 | | | | | | |
| ROME THERMAL | 53,000 | | | | | | |
| ROSSELLINO | 3,000 | 3,000 | | | | | |
| S.ELENA | 400 | | | | | | |

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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | | | | | | | |
| BOLOGNOLA | 2,760 | | | | | | | |
| CARADARI | 728 | | | | | | | |
| CEPRANO | 3,500 | | | | 5,500 | | | |
| CERVARA | 9,000 | | | | | | | |
| CERVINARA | 9,120 | | | | | | | |
| DE CECCO | 600 | | | | | | | |
| FANIA 2 | 4,500 | | | | | | | |
| LARUSMELLO 1 | 3,900 | 700 | | | | | | |
| LEGHORN (U.S.A.) | 1,600 | | | | | | | |
| MESA MONTONO | 19,600 | | | | | | | |
| PERUGIA | 4,500 | | | | | | | |
| PISAGALLI | 1,000 | | | | | | | |
| PISANUCCI | 1,920 | | | | | | | |
| PIAN DELLA ROCCA | 14,000 | | 11,000 | | | | | |
| PIANICELLA | 1,870 | | | | | | | |
| RIETI TH. | 1,000 | | | | | | | |
| RIORDINO | 1,400 | | | | | | | |
| ROME THERMAL | 53,000 | | | | | | | |
| ROSIGNANO | 3,000 | 3,000 | | | | | | |
| S.ELENA | 400 | | | | | | | |
| S.SAVINO (SPZ) | 800 | | | | | | | |
| SCALELLE | 8,000 | | 4,000 | | | | | |
| SPOLETO | 3,500 | | | | | | | |
| SUBLOC | 3,880 | | | | | | | |
| TERNI JUTE | 1,100 | | | | | | | |
| SUB TOTALS | 155,348 | 3,700 | 7,000 | - | 9,500 | - | - | |

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# C E N T R A L  I T . L Y

TABLE "B" (Continued)

| Name of Station | Plant in operation 31 Dec. 44 | YEAR 1945 | | | | | |
|---|---|---|---|---|---|---|---|
| | | 31 Jan. | 28 Feb. | 31 March | 30 April | 31 May | 30 June |
| Brought Forward | 153,340 | 3,700 | 7,000 | - | 9,500 | - | - |
| TERNI STEEL | 600 | | | | | | |
| VESTA | 2,640 | | | | | | |
| VULCI | 3,520 | | | | | | |
| SMALL PLANTS | 10,743 | | | | | | |
| ADDOLORATA | | | 350 | 210 | | | |
| AVENTINO | | 4,000 | | | | | |
| BAGNI DI TIVOLI | | | | 250 | | | |
| CANTERNO | | | 10,000 | | | | |
| CASTELLANO | | | | | | | 2,250 |
| CASTELNUOVO CECILIA | | | | 12,000 | | | |
| CASTELMADAMA | | | | | | | 6,000 |
| CALLISTO | | 34,400 | | | 34,400 | | 34,400 |
| CERCOLA 1 | | | | | 4,000 | | |
| LAGA DEI PELEGRI | | 800 | | | | | |
| LIDIA | | 1,500 | | | | | |
| MANUELA | | | | | | | 3,000 |
| MOLINA ANTICO | | | | | 500 | | |
| MORGONE | | | | | 140 | | |
| PETTORANO | | 300 | 300 | | | | |
| S.ANTONIO | | 250 | | | | | |
| SELVENA | | 1,575 | | | | | |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| VESIA | 2,640 | | | | | | |
| VELCI | 3,520 | | | | | | |
| SMALL PLANTS | 10,745 | | | | | | |
| ADDOLORATA | | | 350 | 210 | | | |
| AVERTINO | | 4,000 | | | | | |
| BAGNI DI TIVOLI | | | | 250 | | | |
| CANTERINO | | | 10,000 | | | | |
| CASTELLANO | | | | | | 2,250 | |
| CASTELNUOVO CECCHA | | | | 12,000 | | | |
| CASTELVADALA | | | | | | 6,000 | |
| GALLETTO | | 34,400 | | | 34,400 | 34,400 | |
| GEROSA 1 | | | | | 4,000 | | |
| LANA DEI PELIONI | | 800 | | | | | |
| LIDIA | | 1,500 | | | | | |
| MANDELA | | | | | | 3,000 | |
| MOLINA ATTIVO | | | | | 500 | | |
| MORONE | | | | | 140 | | |
| PETTORANO | | 300 | 300 | | | | |
| S.ANTONIO | | 250 | | | | | |
| SELVERA | | 1,575 | | | | | |
| TARQUINIA | | 150 | | | | | |
| VENAFRELLO | | | | | | 3,000 | |
| Monthly Increase | | 43,675 | 17,650 | 12,460 | 48,540 | - | 48,650 |
| TOTALS ..... | 170,851 | 214,526 | 232,176 | 244,636 | 293,176 | 293,176 | 341,826 |

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# SOUTHERN ITALY

## TABLE "C"

Installed generating capacity and present output of generating stations in operation as of 31 December 1944.

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| ANIC TH. | 5,000 | - | No report. |
| CALUSIA | 35,200 | 24,500 | Insufficient water. |
| CAPUANO TH. | 45,000 | 30,000 | - |
| CASCINE | 1,050 | - | No report. |
| CELENTA | 1,410 | - | No report. |
| DeGASPERI TH. | 8,820 | 3,000 | - |
| FIUMI DI Mare | 1,080 | - | No report. |
| FRATTI TH. | 1,400 | - | No report. |
| GARIGLIANO | 1,000 | - | No report. |
| LUCERA TH. | 1,080 | - | No report. |
| MATERA 1 | 10,500 | 5,400 | Insufficient water. |
| MATERA 2 | 11,200 | - | War damage. |
| MONTECATINI (Foggia) | 1,000 | - | No report. |
| MORELLI | 1,300 | - | No report. |
| MURO LUCANO | 1,600 | - | No report. |
| NAPOLI STA. TH. | 1,000 | - | No report. |
| ORTICHELLA | 54,000 | 36,500 | Damaged unit. |

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| Name of station | Installed generating capacity KW | Present output capacity KW | Remarks: Reason for loss in output |
|---|---|---|---|
| ANIC TH. | 5,000 | - | No report. |
| CALUSIA | 35,200 | 24,500 | Insufficient water. |
| CAPUANO TH. | 45,000 | 30,000 | - |
| CARBONE | 1,050 | - | No report. |
| CELANO | 1,410 | - | No report. |
| DOGANELLA TH. | 8,820 | 3,000 | - |
| FIUME DI FRASC | 1,050 | - | No report. |
| FRATTI TH. | 1,400 | - | No report. |
| GALATRO | 1,000 | - | No report. |
| LUCERA TH. | 1,050 | - | No report. |
| MATERA 1 | 10,500 | 5,400 | Insufficient water. |
| MATERA 2 | 11,200 | - | War damage. |
| MELFI (PAGLIARONE) | 1,800 | - | No report. |
| MILAZZO | 1,305 | - | No report. |
| MURO LUCANO | 1,680 | - | No report. |
| NAPOLI S.TA TH. | 1,800 | - | No report. |
| ORIOLI... | 54,000 | 36,900 | Damaged unit. |
| S.GIOVANNI A TEDUCCIO TH. | 1,800 | - | No report. |
| S.MANGO | 17,250 | - | War damage. |
| SOLURI - CORACE | 1,405 | - | No report. |
| SUIO (GARIGLIANO) | 9,225 | - | War damage. |



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SOUTHERN ITALY

TABLE "C" (Continued)

| Name of Station | Installed generating capacity KW | Present output capacity KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| TARANTO 1 | 9,600 | 11,650 | - |
| TARANTO 2 | 2,000 | | |
| TARANTO TF. | 4,385 | - | No report. |
| TERNI GRUPPO | 72,800 | 79,000 | - |
| TUSCANIO 2 (CIVITAVE) | 9,680 | 7,950 | Insufficient water. |
| TYRRHENIAN PLANTS | 23,503 | - | No report. |
| TOTALS ..... | 332,983 | 198,000 | |

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| | | | |
|---|---|---|---|
| TARANTO 1 | 9,600 | 11,650 | - |
| TARANTO 2 | 2,000 | | |
| TARANTO TH. | 4,385 | - | No report. |
| TERRA GARDEN | 72,800 | 79,000 | - |
| TUSCUMBIA 2 (CL.NA.O) | 9,680 | 7,950 | Insufficient water. |
| TY ZIMAR TRACTS | 23,303 | - | No report. |
| TOTALS ..... | 332,983 | 198,000 | |

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PROGRESS OF RESTORATION OF ELECTRIC TRANSMISSION LINES

CENTRAL ITALY

CHART 1

| | PERCENTAGE COMPLETED 0 10 20 30 40 50 60 70 80 90 100 | TOTAL LENGTH |
|---|---|---|
| 150 kV | Galleto - Laurentina | 94 Km. |
| 60 kV | Terni - Tor di Quinto (A.R.) | 73,5 Km. |
| 60 kV | Terni - Tor di Quinto (A.V.) | 73,5 Km. |
| 60 kV | Terni - Tiburtino (B.R.) | 78 Km. |
| 60 kV | Terni - Tiburtino (B.V.) | 78 Km. |
| 60 kV | Acquarin - Ceccano | 68 Km. |
| 60 kV | Ceccano - Cesrano | 16,5 Km. |
| 60 kV | C.Vecchia - C.Castellana | 50 Km. |
| 230 kV | Casaccelle - Popoli | 66 Km. |
| 120 kV | Castilla - Foscara 3 | 103 Km. |
| 120 kV | Foligno - Terni | 44 Km. |
| 120 kV | Foligno - Chiusi | 62 Km. |
| 120 kV | Terni - Chiusi | 77 Km. |
| 30 kV | Fiscia - Ancona | 50 Km. |
| 30 kV | Ancona - Fabriano | 61 Km. |
| 30 kV | Avezzano - Lucci | 58 Km. |

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GENTRAL ITALY

CHART 1

PROGRESS OF RESTORATION OF ELECTRIC TRANSMISSION LINES

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| | | | |
|---|---|---|---|
| 60 KV | Terni - Tiburtino | (S.F.) | 78 Km. |
| 60 KV | Acquaria - Ceccano | | 68 Km. |
| 60 KV | Ceccano - Ceprano | | 16,5 Km. |
| 60 KV | C.Vecchia - C.Castellano | | 50 Km. |
| 230 KV | Cepranello - Popoli | | 66 Km. |
| 150 KV | Cotilia - Pescara 3 | | 103 Km. |
| 120 KV | Poligno - Terni | | 44 Km. |
| 120 KV | Poligno - Chiusi | | 62 Km. |
| 120 KV | Terni - Chiusi | | 77 Km. |
| 30 KV | Biscia - Chiana | | 50 Km. |
| 30 KV | Arezzo - Fabriano | | 61 Km. |
| 30 KV | Arezzano - Chiusi | | 58 Km. |
| 30 KV | Ischia - Civitella | | 30 Km. |
| 60 KV | Pescara - Aquila | | 60 Km. |
| 30 KV | Pescara - Chiusi | | 64 Km. |

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# C E N T R A L  I T A L Y

CHART 7 (continued)

PROGRESS OF RESTORATION OF ELECTRIC TRANSMISSION LINES




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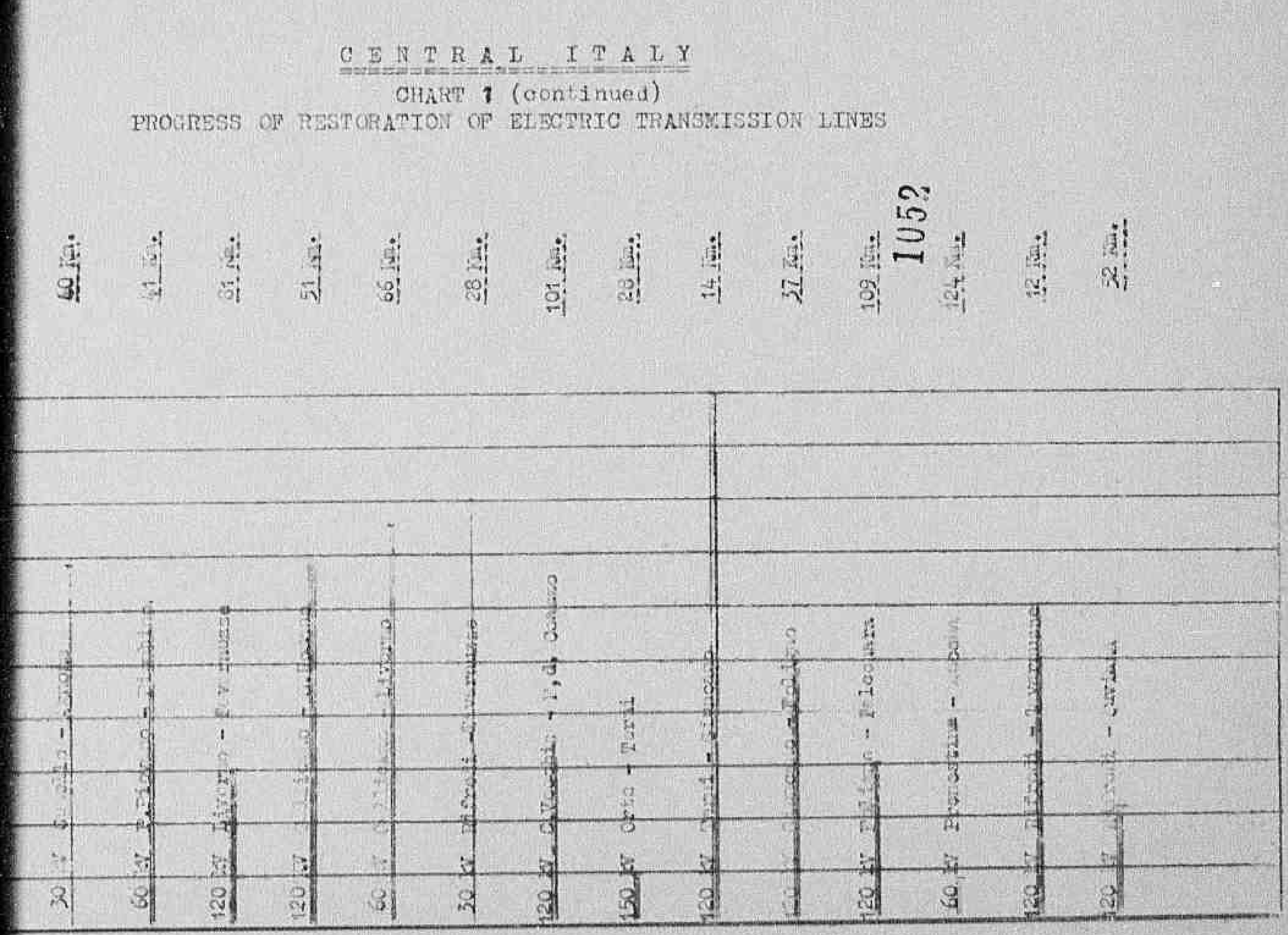
# C E N T R A L  I T A L Y

## CHART 1 (continued)

## PROGRESS OF RESTORATION OF ELECTRIC TRANSMISSION LINES

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# C E N T R A L  I T A L Y

## CHART 2

### ESTIMATED MONTHLY INCREASE ELECTRIC GENERATION

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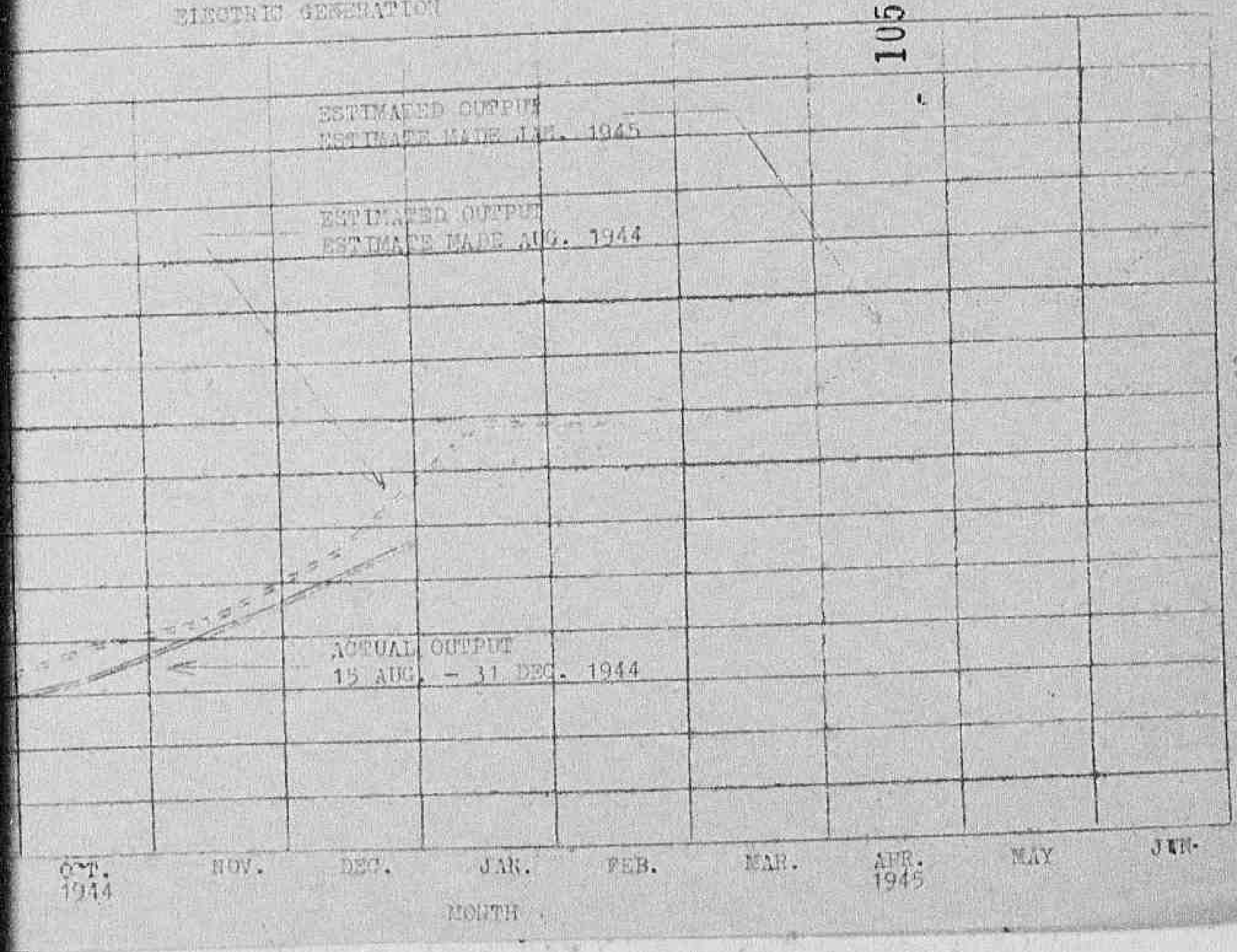
C E N T R A L  I T A L Y

CHART 2

ESTIMATED MONTHLY INCREASE
ELECTRIC GENERATION



HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

ELECTRICAL DIVISION

RESTORATION OF ITALIAN ELECTRICAL PLANT AND TRANSMISSION COSTS

PROGRESS REPORT FOR MONTH OF NOVEMBER 1944

W.H. LAMPSON LT. COL.
Chief Electrical Division

L.L. JESSUP LT. COL.
Director Public Works and Utilities
Sub-Commission

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# TABLE "A"

Showing the installed generating capacity and present output of generating stations in operation on the grid system as of 30 NOVEMBER 1944

## CENTRAL ITALY

| Name of Station | Installed generating capacity KW | Present output KW | REMARKS Reason for loss in output |
|---|---|---|---|
| ACQUORIA | 48,250 | - | War damage. |
| ALTOLINA | 396 | 350 | No report. |
| ANVERSA | 30,000 | - | War damage. |
| ARCI | 8,300 | 4,800 | Insufficient water. |
| AURELIA | 5,000 | - | War damage. |
| AVENTINO | 8,400 | - | War damage. |
| BOLOGNOLA | 2,750 | 1,200 | |
| CANTERNO | 10,000 | - | Complete construction. |
| CARESSAI | 1,150 | 350 | Incomplete report. |
| CASTELLADA | 15,400 | - | War damage. |
| C.CASTELLACCIO | 7,680 | - | War damage. |
| C.NUOVO V. E. CECINA | 48,000 | - | War damage. |
| C.NUOVO CAPE CECINA | 7,200 | - | Enemy hands. |
| C.NUOVO SABBIONI | 36,400 | - | War damage. |
| CEPRANO | 9,000 | 8,000 | Transformer capacity. |
| CERVARA | 9,600 | 6,200 | War damage and aged machinery. |
| COLLESTATTE | 5,200 | - | War damage. |

| Name of Station | Installed generating capacity KW | Present output KW | Remarks Reason for loss in output |
|---|---|---|---|
| ACQUORIA | 40,250 | - | War damage. |
| ALTOLIMA | 896 | 550 | No report. |
| ANVERSA | 30,000 | - | War damage. |
| ARCI . | 8,500 | 4,400 | Insufficient water. |
| AUZELLA | 3,000 | - | War damage. |
| AVENTINO | 5,400 | - | War damage. |
| BOLOGNOLA | 4,750 | 1,200 | |
| CANTERNO | 10,000 | - | Complete construction. |
| CARASSAI | 1,150 | 350 | Incomplete report. |
| CASTELLANDIA | 15,400 | - | War damage. |
| CASTELLINO | 7,680 | - | War damage. |
| C.NUOVO V. A. (TIBER) | 45,000 | - | War damage. |
| C.NUOVO RAPIDALVA | 7,200 | - | Enemy hands. |
| C.NUOVO SABIONI | 26,400 | - | War damage. |
| CEPRANO | 9,000 | 6,000 | Transformer Generator capacity. |
| CERNARA | 9,600 | 6,200 | War damage and hydromechanical. |
| COLLESTATTE | 5,200 | - | War damage. |
| CORNACCHIA | 9,100 | 4,000 | Insufficient water. |
| CORFINO | 5,120 | - | Enemy hands. |
| CORTILIA | 54,700 | - | War damage. |
| FAFA I | 19,200 | - | War damage. |
| FAFA II | 9,600 | 4,000 | War damage. |
| FARINDOLA | 1,050 | 247 | War damage. |
| FONTANA LIRI | 3,000 | - | War damage. |



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TABLE "L" (continued)

| Name of Station | Installed generating capacity KW | Present output KW | REMARKS Reason for loss in output |
|---|---|---|---|
| FONTE CERA | 4,500 | - | War damage. |
| FUSSO | 3,000 | - | War damage. |
| GALLETO | 137,600 | - | War damage. |
| GALLICANO | 24,600 | - | War damage. |
| GENOA. I | 16,000 | - | War damage. |
| GENOA. II | 756 | - | War damage. |
| LAG. DA PELICCI | 1,680 | - | War damage. |
| LA MOLA | 640 | - | War damage. |
| LANCIANO I | 7,600 | 3,000 | Maint and repairs. |
| LANCIANO II | 72,000 | - | War damage. |
| LASTRINA | 800 | - | War damage. |
| LISCA | 800 | - | War damage. |
| LIMA | 6,000 | - | War damage. |
| LIVORNO | 43,600 | - | War damage. |
| LIVORNO (U.S. ARMY) | 1,000 | 1,000 | Portable equipment. |
| MANCINA | 6,000 | - | War damage. |
| MARGHERA | 21,000 | - | War damage. |
| MOLINA ARSENIO | 1,200 | - | War damage. |
| MORENO I | 4,070 | - | War damage. |
| MORENO II | 1,900 | - | War damage. |
| MORENO S.E.S. | 12,000 | - | War damage. |

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| | | | |
|---|---|---|---|
| [illegible] | [illegible] | - | |
| BALDUCCI | 157,600 | - | War damage. |
| CALLIGARO | 21,600 | - | War damage. |
| CHIESA I | 16,000 | - | War damage. |
| CHIESA II | 756 | - | War damage. |
| CASA DEL PELLEGRINI | 1,600 | - | War damage. |
| L. NUOVA | 540 | - | War damage. |
| LANCIOTTI I | 7,000 | 5,000 | Paint and repairs. |
| LANCIOTTI II | 72,000 | - | War damage. |
| LANCIA | 300 | - | War damage. |
| LISOLA | 600 | - | War damage. |
| LIMA | 6,000 | - | War damage. |
| LIVORNO | 41,600 | - | War damage. |
| LIVORNO (U.S. ARMY) | 1,600 | 1,200 | Portable equipment. |
| MANCINI | 6,000 | - | War damage. |
| MARINES | 24,000 | - | War damage. |
| MOLINA AZZURRO | 7,200 | - | War damage. |
| MONDIO I | 1,070 | - | War damage. |
| MONDIO II | 1,900 | - | War damage. |
| MORINO S.A.P. | 12,000 | - | War damage. |
| MOSCATO | 5,120 | - | War damage. |
| MUNI. MONTORO | 22,400 | 14,000 | Insufficient water. |
| PAPINO | 65,200 | - | War damage. |
| PAVIA | 11,900 | - | War damage. |
| PESO | 4,800 | 3,700 | Insufficient water. |
| PELEGRINI | 2,000 | 1,000 | War damage. |



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| Name of Station | Investment Requirement Quantity | Investment Value | Station Fur Loss in Output |
|---|---|---|---|
| | Ft² | $ | |
| PRINTING | 4,000 | - | Our Share. |
| SPECIALTY | 9,520 | - | Our Share. |
| FOOD I | 28,600 | - | Our Share. |
| FOOD II | 22,500 | - | Our Share. |
| TEXTILE III | 24,000 | - | Our Share. |
| TEXTILE IV | 53,600 | - | Our Share. |
| PAPER MILL WORKS | 4,800 | 1,600 | Insufficient area. |
| PLUMBING | 9,000 | - | Our Share. |
| PAINTS VILLA | 1,360 | - | Our Share. |
| CHEMICAL | 2,400 | 180 | Our Share. |
| GLASS-WORKS | 6,000 | - | Our Share. |
| SCALE-MAN | 4,200 | 4,200 | Insufficient amount. |
| SAMSO PIG-AS | 3,500 | - | Our Share. |
| SALTS-NO | 17,600 | - | Our Share. |
| HOSIERY-NO | 9,600 | 2,000 | Our Share. |
| HOME STEEL | 49,000 | 31,000 | Joint yard regular. |
| SIGNING | 3,360 | 1,800 | Our Share. |
| ENGINEERS | 640 | - | Our Share. |
| STEEL (C.I.S...) | 2,600 | 600 | Small supply yard regular. |
| BUYLOCH | 400 | - | Our Share. |
| SUBSIDIARY | 800 | - | Our Share. |
| FOOD I | 7,200 | - | Our Share. |
| FABRICATION | 1,120 | - | Our Share. |
| PROTO PIECE | 9,300 | - | Our Share. |

(Continued) Page "A"

| | | | |
|---|---|---|---|
| PESCARA II | 26,000 | - | War damage. |
| PESCARA III | 22,500 | - | War damage. |
| PESCARA IV | 24,000 | - | War damage. |
| PIAZZA DELLA VITTORIA | 33,600 | - | War damage. |
| PICINISCO | 1,850 | 1,600 | Insufficient water. |
| PONTE NIZZA | 9,000 | - | War damage. |
| PRATOVECCHIO | 1,120 | - | War damage. |
| PRATO | 7,200 | - | War damage. |
| RAGUSA | 520 | - | War damage. |
| RAVALDO | 400 | - | War damage. |
| RETTI (C.I.T.) | 2,800 | 600 | Coal supply and repairs. |
| RIGNANO | 640 | - | War damage. |
| RIORDINO | 5,900 | 1,800 | War damage. |
| ROMA CENTRAL | 49,000 | 21,000 | Plant and repairs. |
| ROSETANO | 9,600 | 2,000 | War damage. |
| SALERNO | 17,600 | - | War damage. |
| SARSO PISANO | 3,500 | - | War damage. |
| SCALELLA | 8,000 | 4,200 | Insufficient water. |
| SERRAMANNA | 5,000 | - | War damage. |
| SPOLETO | 2,400 | 180 | War damage. |
| S. ELIA | 1,360 | - | War damage. |
| SILVIA | 3,360 | - | War damage. |
| SPOLETO | 7,040 | - | War damage. |
| SPRANO | 14,400 | - | War damage. |
| STELLANO | 1,040 | - | Enemy lands. |

- 3 -

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TABLE "A" (continued)

| Name of Station | Installed generating capacity KW | Present output KW | REMARKS Reason for LOSS in output |
|---|---|---|---|
| SILLICO | 1,200 | - | Enemy hands. |
| SUSLAO | 6,400 | 3,200 | War damage. |
| SUVERA | 42,800 | - | War damage. |
| TERNI JUTIFICIO | 1,100 | 900 | War damage. |
| TERNI PLANT | 1,300 | 1,500 | - |
| TERNI STEEL | 2,080 | 450 | - |
| TERNI MUNICIPALE | 3,200 | - | War damage. |
| TOLMEZZO | 3,500 | 1,200 | War damage. |
| VALPILA. | 800 | - | War damage. |
| VENAFRELLO | 15,500 | - | War damage. |
| VESIL | 2,400 | 2,200 | - |
| VILL. POTENZ. I | 840 | - | War damage. |
| VULCI | 3,840 | 2,100 | - |
| 18 SMALL PLANTS NOW ARM | 5,610 | 2,400 | Repairs and insufficient water. |
| 26 SMALL PLANTS AMPS (in operation) | 5,100 | 3,980 | Repairs and insufficient water. |
| 36 SMALL PLANTS UNES (destroyed) | 9,250 | - | War damage. |
| TOTAL ..... | 1,190,342 | 102,237 | |

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| | | | |
|---|---|---|---|
| SUSANA | 42,600 | - | War damage. |
| TEMI AMELIFICIO | 1,100 | 900 | War damage. |
| TEMI PLANT | 1,500 | 1,500 | - |
| TEMI STEEL | 2,000 | 450 | - |
| TEMI MUNICIPALE | 5,200 | - | War damage. |
| TOLENTINO | 3,300 | 1,200 | War damage. |
| VARPILNA | 800 | - | War damage. |
| VELLUTELLO | 13,700 | - | War damage. |
| VISE | 2,400 | 2,200 | - |
| VILL. POTENZA I | 840 | - | War damage. |
| VULCI | 3,840 | 2,100 | - |
| 18 SMALL PLANTS MINE AMT. | 4,610 | 2,400 | Repairs and insufficient water. |
| 26 SMALL PLANTS MINES (in operation) | 5,100 | 3,980 | Repairs and insufficient water. |
| 36 SMALL PLANTS MINES (damaged) | 9,250 | - | War damage. |
| TOTAL ..... | 1,190,342 | 102,237 | |

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## T A B L E "B"

Standing Generating Plants, connected to Grid System, now in operation after repairs, and progress of repair of plants still out of service.

### CENTRAL PLAN

| Name of Station | Installed generating capacity KW | Present output KW | REMARKS Estimated date of completion |
|---|---|---|---|
| ..CATORIA | 43,250 | - | 1 x 15,000 KW Dec. '45.<br>1 x 3,500 KW from Cesarao Dec. '44.<br>1 x 4,500 KW from Berlaldo May '45. |
| ..AVELL. PERUGIAN | 30,000 | - | 1 x 10,000 KW Sept. '45. |
| ..IBELL. P.S.A. Stan.. | 3,000 | - | Transformer to be transferred from Yulei not modified. |
| ..TENTINO | 6,480 | - | 1 x 4,000 KW Jan. '45. |
| CIVITTAVO | 10,000 | - | New construction to be completed. Feb. '45. |
| C.STELNUOVO DI.. | 15,400 | - | 1 x 5,000 KW June '45. |
| CETRARO | 5,000 | 3,000 | 1 set transferred to ..aquoria. |
| CHIV..NI. | 9,600 | 5,400 | 1 x 1,500 KW Dec. '44. |
| C.STELNUOVO V.D. GROTT.. | 48,000 | - | 1 x 12,000 KW March '45. |
| CIVITEL.. | 54,700 | - | 1 x 27,000 KW Dec. '45. |
| F..TV. I | 17,600 | - | 1 x 5,000 from Orvieto.. June 30 '45. |

| | KW | KW | |
|---|---|---|---|
| ACAPULCO | 49,450 | - | 1 x 15,000 KW<br>Dec. '45.<br><br>1 x 3,500 KW from Guaymas<br>Dec. '44.<br><br>1 x 4,300 KW from Orizaba<br>May '45. |
| ANTIG. PRINCIPAL | 30,000 | - | 1 x 10,000 KW<br>Sept. '45. |
| ANGEL P.G.A. Sta. | 3,000 | - | Transformer to be transferred from Tuxpan and modified. |
| ANTIGUO | 8,400 | - | 1 x 4,000 KW<br>Jan. '45. |
| CAPITANO | 10,000 | - | New construction to be completed.<br>Feb. '45. |
| CASTILLOS | 15,400 | - | 1 x 6,000 KW<br>June '45. |
| CERRO | 2,000 | 8,000 | 1 set transformers to require. |
| CHICLE | 9,600 | 3,200 | 1 x 1,500 KW<br>Dec. '44. |
| CLEMENCIANO V.A. CICIL. | 48,000 | - | 1 x 12,000 KW<br>March '45. |
| COTILL | 54,700 | - | 1 x 27,000 KW<br>Dec. '45. |
| FAPL I | 17,600 | - | 1 x 5,000 from Guaymas<br>June 30 '45.<br><br>1 x 6,400 KW<br>Dec. 31 '45. |
| FAPL II | 9,000 | 4,000 | |
| FONTAN. LIBI | 3,000 | - 1045 | 1 x 1,000 KW<br>Dec. '45. |



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TABLE "I" (continued)

| Name of Station | Installed generating capacity KW | Present output KW | REMARKS Estimated date of completion |
|---|---|---|---|
| [illegible] | 4,500 | - | 1 x 3,800 KW from 1.3.45 June '45. |
| [illegible] | 136,600 | - | 1 x 35,000 KW Dec. 31 '44. |
| | | | 1 x 35,000 KW Sept. 20 '45. |
| | | | 1 x 35,000 KW Dec. 30 '45. |
| | | | 1 x 35,000 KW June 30 '45. |
| [illegible] | 45,000 | - | 1 x 4,000 KW April '45. |
| [illegible] | 1,600 | - | 1 x 800 KW Jan. '45. |
| [illegible] | 7,000 | 3,000 | 1 x 900 KW Dec. ' 44. |
| | | | 1 x 700 KW Jan. '45. |
| [illegible] | 6,000 | - | 1 x 4,000 KW June '45. |
| [illegible] | 12,000 | - | 1 x 6,000 KW Dec. '45. |
| [illegible] | 1,200 | | 1 x 500 KW from England April '45. |
| [illegible] | 8,000 | 4,000 | |
| [illegible] I - II - III - IV | 35,200 | - | 1 x 11,000 KW Sept. '45. |
| | | | 1 x 6,000 KW Dec. '45. |

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TABLE "B" (continued)

| Name of Station | Installed generating capacity KW | Present output KW | REMARKS Estimated date of completion |
|---|---|---|---|
| BORGHETTO SOLVAY | 9,600 | 2,000 | - |
| SALISANO | 17,600 | - | 1 x 6,600 KW Aug. '45. |
| S.SAVINO | 800 | 700 | |
| SELVENA | 3,360 | - | 1 x 1,500 KW Jan. '45. |
| SPORLAOSTA. I | 400 | 300 | - |
| SPORLAOSTA. II | 500 | - | - |
| SUPPLOO | 6,400 | 3,200 | |
| TARQUINIA | 300 | 175 | Transformer installation. Jan. '45 increasing capacity. |
| TERNI Juttificio | 1,100 | 900 | - |
| TERNI Steel | 2,000 | 450 | - |
| TRIPONZO | 800 | 600 | - |
| VENAFRO/PIGNO | 15,500 | - | 1 x 3,500 KW June '45. 1 x 8,000 KW Orta Nerone. Dec. '45. |



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| | | | |
|---|---|---|---|
| GALILEO | 17,500 | - | 1 x 8,000 KW<br>Aug. '45. |
| S.SAVINO | 500 | 700 | |
| SELVENA | 3,350 | - | 1 x 1,500 KW<br>Jan. '45. |
| SFORZACOSTA. I | 200 | 300 | - |
| SFORZACOSTA. II | 500 | - | - |
| STELLO | 6,400 | 3,200 | |
| TAVARNELLE | 300 | 175 | Transformer installation.<br>Jan. '45 increasing capacity. |
| TESTI Jutificio | 1,100 | 900 | - |
| TESTI Steel | 2,000 | 450 | - |
| VALDIPESA | 800 | 600 | - |
| VENZANESE | 45,500 | - | 1 x 3,500 KW<br>June '45.<br>1 x 8,000 KW from Cavaso.<br>Dec. '45. |



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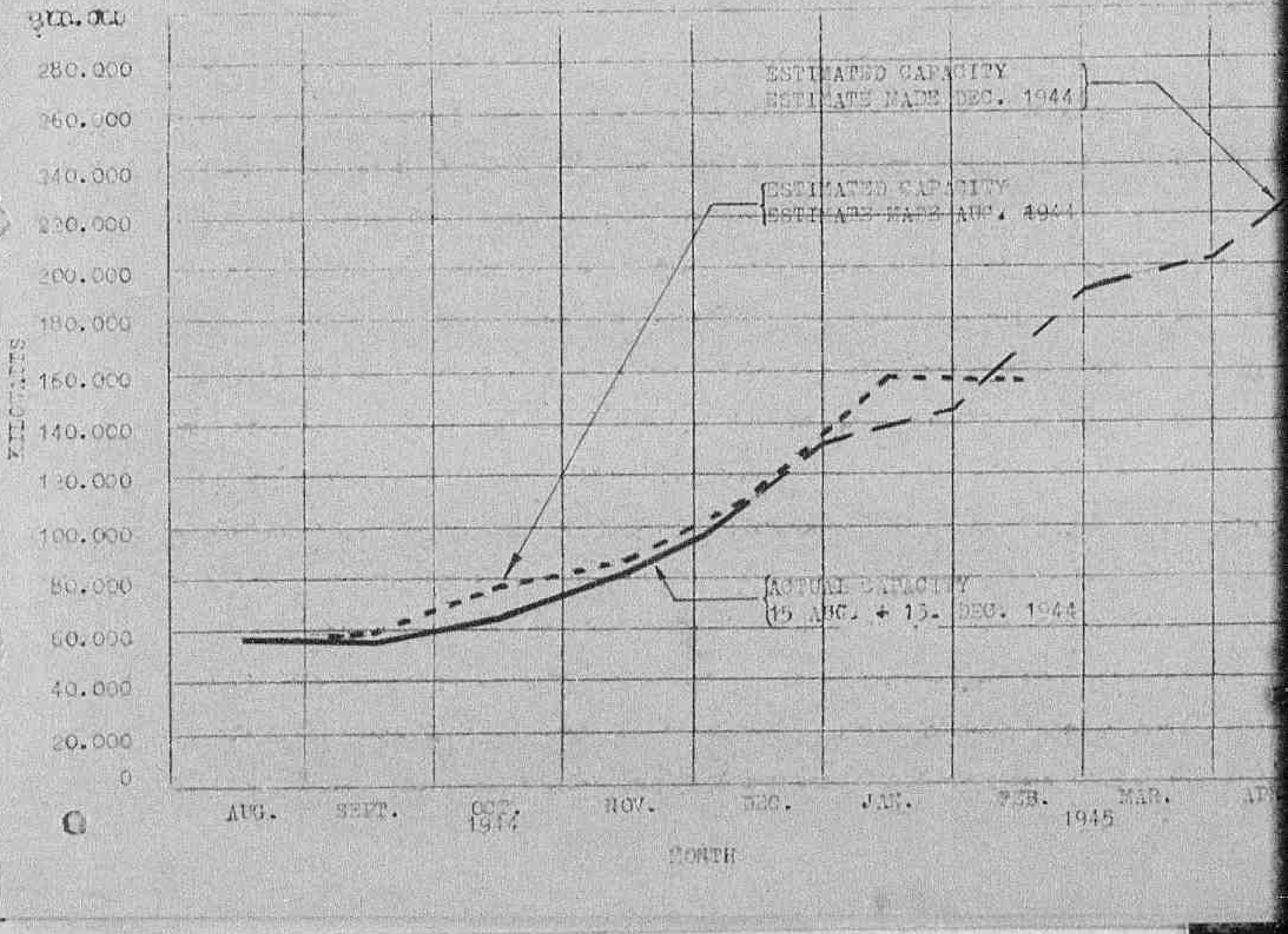
MONTHLY INCREASE
ELECTRIC GENERATING CAPACITY
CENTRAL ITALY



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MONTHLY INCREASE
ELECTRIC GENERATING CAPACITY

CENTRAL ITALY

Declassified E.O. 12356 Section 3.3/NND No. 785019

# C H A R T 2

SHOWING THE ESTIMATED AND ACTUAL PROGRESS
IN THE RESTORATION OF TRANSMISSION LINES
CENTRAL ITALY

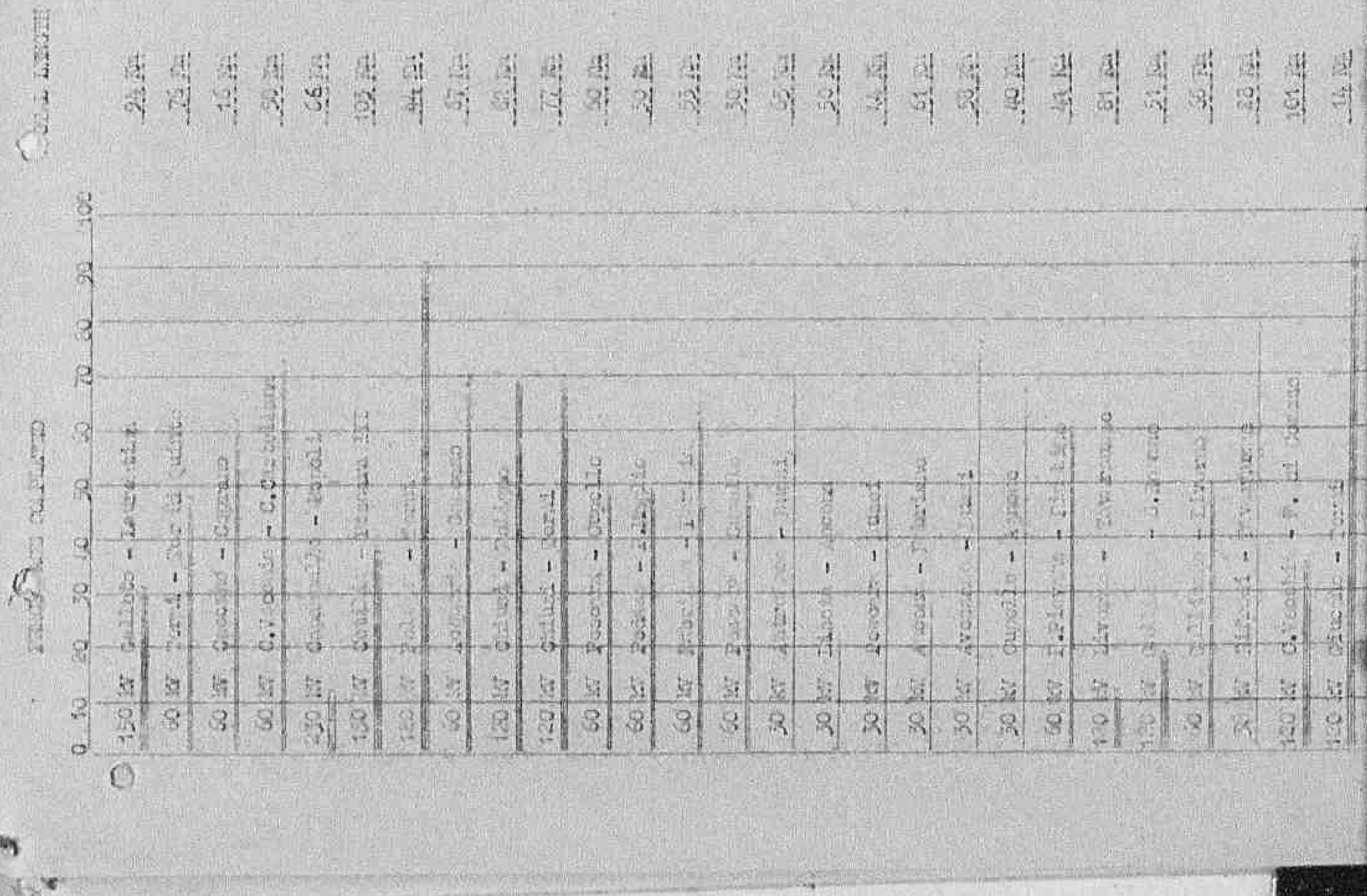
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CHART 2

SHOWING THE ESTIMATED AND ACTUAL PROGRESS
IN THE RESTORATION OF TRANSMISSION LINES
CENTRAL ITALY

Declassified E.O. 12356 Section 3.3/NND No. 785019

1070

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Issued pursuant to the

Electrical Division
Public Works Administration
Sub-Committee
Washington, D.C.
Apr 394

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# FORWARD

6,500 kilowatts of generating capacity resumed operation in Central Italy during the past two weeks, bringing the present total to 97,330 kilowatts. It is to be noted that 1,800 kilowatts of the addition are accounted for by portable equipment.

Steam turbine troubles continued to retard electric output during the period. A 3,000 kW unit at Lucrecilis became damaged during the period and will be out of service indefinitely. For a short period, all three units at the River SCR plant were shut down. One is now back in service following the repair of an oil pump shaft. Further study of the 6,000 kW turbines may show the necessity of rebalancing the rotor. In this case, the machinery be out of service for six weeks. Generator and boiler are still being awaited for the other 3,000 kW unit. The steam cross over line between the ACDA and SCR plants has been finished, and in operation. Use of this line permits steam generated at the ACDA plant to be utilized in the SCR station, but will allow maintenance work to be done on the SCR boilers. The Tiber is presently carrying much foreign matter, which frequently plugs condenser tubes in both stations. Also, for several days during the period, high water has washed debris into the trash racks of several hydro stations, materially reducing their output.

The best day for electric production on the Rome network since allied occupation occurred on 27 November when the generated peak reached 56,000 kilowatts and the production for the day was 1,010,000 kilowatt hours.

GENERATING CAPACITY, CENTRAL ITALY ON 30 NOVEMBER 97,330 KW

GENERATING CAPACITY, CENTRAL ITALY ON 15 NOVEMBER 93,980 KW.

[illegible] station on the Rand. CR plant was shut down. One is now back in service following the repair of an oil pump shaft. Further study of the G.E. [illegible] turbine may show the necessity of rebalancing the rotor. In this case, the machine may be out of service for six weeks. Condenser and boiler repairs still being awaited for the other 5.000 KW unit. The steam cross over line between the ACEC and ELL plants has been finished, and is operational. Use of this line permits steam generated at the ACEC plant to be utilized in the ELL station, and will allow maintenance work to be done on the SKD boilers. The fiber is frequently carrying much foreign matter, which frequently plugs condenser tubes in both stations. Also, for several days during the period, high water has washed debris into the trash racks of several hydro stations, materially reducing their output.

The best day for electric production on the Rand network since [illegible] occurred on 27 November when the generated peak reached 56.000 kilowatts and the production for the day was 1.010.000 kilowatt hours.

| | |
|---|---|
| OPERATING CAPACITY, CENTRAL RAND ON 30 NOVEMBER | 97.330 KW |
| OPERATING CAPACITY, CENTRAL RAND ON 15 NOVEMBER | 83.980 KW. |



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Since 15 November 1944 the following generating Stations and transmission lines have been reported as resuming operation:

GENERATING STATIONS

| Stations | Present Output of Additional Capacity KW. | Date reported |
|---|---|---|
| Cepranc (2nd Set) | 3.500 | Nov. 15th 1944 |
| Cornar. (5th Set) | 600 | Nov. 22nd 1944 |
| Livorno, portable equipment | 1.800 | Nov. 21st 1944 |
| Solvay (Rosignano) 1 other Set | 1.000 | Nov. 21st 1944 |
| Terni Cutifichio | 1.000 | Nov. 27th 1944 |
| One small Plant connected to the Rome Grid (Moletta) | 170 | Nov. 21st 1944 |
| Three small Plants connected to the UNRRA Grid: | | |
| Centrale di Suvero | | |
| Pottomare (1st Set) | | |
| Piatra Rege | | |
| Total | 450 | Nov. 20th 1944 |
| N.I. ..... | 8.520 | |

TRANSMISSION LINES

| Companies | Length in Kilometers | | Date reported |
|---|---|---|---|
| LOCAL | | | |
| 60 KV Line between Terni and Dalmine | 18 | | Nov. 19th 1944 |
| 150 KV line between Rome and Terni | 15 | 33 | do |
| SMA | | | |
| 60 KV line between Rome and Terni | 4 | 4 | do |
| TOTAL ..... | | 37 | |

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| | | |
|---|---|---|
| Livorno, [illegible] equipment | 1.000 | Nov. 21st 1944 |
| Salvay (Rosignano) 1 stator Set | 1.000 | Nov. 21st 1944 |
| Turni Airfield | 1.000 | Nov. 17th 1944 |
| One small Plant connected to the Rome Grid (Moletto) | 170 | Nov. 21st 1944 |
| Three small Plants connected to the UNRRA Grid: | | |
| Castel di Campo | | |
| Fattorini (1st Set) | | |
| Pietro Pepe | | |
| Total | 450 | Nov. 20th 1944 |
| GRAND TOTAL ..... | 8.540 | |

TRANSMISSION LINES

| Connections | Length in Kilometers | | Date reported |
|---|---|---|---|
| ACEA: | | | |
| 60 KV line between Turni and Salisano | 18 | | Nov. 19th 1944 |
| 150 KV line between Rome and Terni | 15 | 33 | do |
| SME: | | | |
| 60 KV line between Rome and Terni | 4 | 4 | do |
| TOTAL ..... | | 37 | |



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TABLE "A"

| Station | Nameplate Capacity KW | Normal Output KW | Present Output KW | Reasons for not maintaining normal output. |
|---|---|---|---|---|
| Arci | 4.800 | 4.200 | 4.200 | - |
| Cepranc | 9.000 | 9.000 | 7.000 | Output limited by transformer capacity. An additional transformer now being prepared to operate by 15 December. |
| Comunacque | 8.000 | 7.000 | 4.700 | Insufficient stream flow. |
| Forfo III | 4.200 | 4.200 | 3.800 | - |
| Fiorittella | 800 | 700 | 700 | - |
| Liri Paper Mill | 5.000 | 3.000 | 1.200 | Unit damaged. |
| Rome Thermal | 49.000 | 39.000 | 23.000 | At ACEA - One 5.000 KW diesel is still under repair. One 5.000 KW turbine will be out of service until the end bells can be replaced. The other 5.000 KW turbine is temporarily inoperative because of a broken lubricating oil pump shaft. The 6.000 KW turbine will be out of service for about one month because of internal rubbing. At SNIA - Work is continuing to reduce the vibration in one 10.000 KW unit. |
| San Savino | 800 | 700 | 700 | - |
| Scalello | 8.000 | 6.000 | 4.000 | Insufficient stream flow. |
| Subiaco | 7.000 | 5.500 | 5.200 | Unit damaged. Insufficient stream flow. |
| Terquinia | 340 | 300 | 175 | Low transformer capacity. |

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| | | | | |
|---|---|---|---|---|
| Cannaiola | 6.000 | 7.000 | 4.700 | Insufficient stream flow. |
| Forfa II | 4.200 | 4.200 | 3.800 | - |
| Fiorisella | 800 | 700 | 700 | - |
| Liri Paper Mill | 3.000 | 3.000 | 1.200 | Unit damaged. |
| Rome Thermal | 49.000 | 39.000 | 23.000 | At ACEA - One 5.000 KW diesel is still under repair. One 5.000 KW turbine will be out of service until the wall bells can be replaced. The other 5.000 KW turbine is temporarily inoperative because of a valve lubricating oil pump shaft. The 6.000 KW turbine will be out of service for about one month because of internal rubbing. At SRE - Work is continuing to reduce the vibration in one 10.000 KW unit. |
| San Savino | 300 | 700 | 700 | - |
| Scalello | 8.000 | 6.000 | 4.000 | Insufficient stream flow. |
| Subiaco | 7.000 | 5.500 | 5.200 | Unit damaged. Insufficient stream flow. |
| Tarquinia | 340 | 500 | 175 | Low transformer capacity. |



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(table "A" continued)

| S t a t i o n | Nameplate Capacity KW | Normal Output KW | Present Output KW | Reasons for not maintaining normal output. |
|---|---|---|---|---|
| Tremezzo | 850 | 500 | 500 | - |
| Vasta | 2.400 | 2.400 | 2.200 | - |
| Vilci | 3.826 | 2.500 | 1.200 | Insufficient stream flow. |
| 13 Small Plants Rono area: | | | | |
| Acquadolto | | | | |
| Cardinale | | | | |
| Carchirico | | | | |
| Farriera | | | | |
| Forche | | | | |
| Fossanova | | | | |
| Molette | | | | |
| Molino di Ponte | | | | |
| Soturno | | | | |
| Torrano | | | | |
| Valle Grande | | | | |
| Valle Piatta | | | | |
| Varna | | | | |
| Total ..... | 1.960 | 1.960 | 1.125 | Insufficient stream flow. |
| Total generating capacity operating and connected to the Rono Grid as of 30 Nov. 44 | | | 57.700 | |

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| | | | | |
|---|---|---|---|---|
| 15 Small Plants Rome Area: | | | | |
| Acquasalto | | | | |
| Cardinale | | | | |
| Corchiano | | | | |
| Farnese | | | | |
| Forcho | | | | |
| Fossanova | | | | |
| Mariotto | | | | |
| Molino di Ponte | | | | |
| Sonnino | | | | |
| Tarano | | | | |
| Vado Ducale | | | | |
| Valle Piatta | | | | |
| Vasia | | | | |
| Total ..... | 1.960 | 1.960 | 1.125 | Insufficient stream flow. |
| Total generating capacity operating and connected to the Rome Grid as of 30 Nov. 44 | | | 57.700 | |



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## TABLE "D"

Details of generating Stations in Central Italy, operating but not connected to the Rome Province as of 30 Nov. 1944.

| Station | Nameplate Capacity KW | Normal Output KW | Present Output KW | Reasons for not maintaining normal output. |
|---|---|---|---|---|
| Aielli | 1.195 | 800 | 550 | Insufficient stream flow. |
| Bolognola | 2.750 | 1.375 | 1.200 | do |
| Carpegni | 1.050 | 700 | 300 | do |
| Carvara | 9.640 | 8.000 | 7.000 | Units under repair. |
| Farindola | 1.050 | 500 | 500 | Units damaged. |
| Larderello ) Castelnuovo) | 126.000 | 100.000 | 5.000 | Units damaged. |
| Livorno | 1.800 | 1.800 | 1.800 | - |
| Nora Montore | 20.000 | 12.500 | 11.500 | Insufficient stream flow. |
| Pedaso | 4.500 | 2.250 | 2.250 | - |
| Piernco | 1.500 | 1.500 | 1.400 | Insufficient stream flow. |
| Recignano | 12.000 | 12.000 | 2.000 | Units damaged |
| Terni Jutificio | 1.100 | 1.100 | 1.000 | - |
| Terni Old | 3.150 | 150 | 150 | Units damaged |
| Terni Plate | 1.500 | 1.500 | 1.500 | - |
| Terni Steel | 2.100 | 500 | 500 | Unit damaged. |

28 Plants [illegible]
Area:

Ambro
Canstro
Castel di Sangro
Castel Frentano
Cesaqualmbo
Cipolla
De Cecco
Franciolini
Lanciano
Molini Agugliano
Molino Nuovo
Monte Molino
Monte S.Martino
Orsatti
Orvieto
Panbuffetti
Pettarano
Pietro Rogo
Pieve Torlgliana

| | | | | |
|---|---|---|---|---|
| Bolognola | 2.750 | 1.375 | 1.200 | flow. |
| Carassai | 1.050 | 700 | 700 | do |
| Cervara | 9.640 | 8.000 | 7.000 | do |
| Fornibala | 1.050 | 500 | 500 | Units under repair. |
| Lardarello<br>Castelnuovo | 126.000 | 100.000 | 3.000 | Units damaged. |
| Livorno | 1.800 | 1.800 | 1.800 | Units damaged. |
| Nera Montoro | 20.000 | 12.500 | 11.500 | - |
| | | | | Insufficient stream flow. |
| Pelago | 4.500 | 2.250 | 2.250 | - |
| Piomico | 1.500 | 1.500 | 1.400 | Insufficient stream flow. |
| Rosignano | 12.000 | 12.000 | 2.000 | Units damaged |
| Terni Jutificio | 1.100 | 1.100 | 1.000 | - |
| Terni Old | 3.150 | 150 | 150 | Units damaged |
| Terni Piato | 1.500 | 1.500 | 1.500 | - |
| Terni Steel | 2.100 | 500 | 500 | Unit damaged. |

28 Plants in Zone 3
Area:

Amoro
Cametra
Castel di Sangro
Castel Rainonde
Cassagalambo
Cipolla
De Cecco
Franciolini
Lanciano
Molina Aquiliano
Molina Nuovo
Monte Molino
Monte S.Martino
Orsatti
Orvieto
Ramuffetti
Pettorano
Pietro Rogo
Piove Rovigliano



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(table "G" continued)

| Station | Monoplate Capacity KW | Normal Output KW | Present Output KW | Reasons for not maintaining normal output. |
|---|---|---|---|---|
| Piorraco | | | | |
| Ponte Felcino | | | | |
| Rigabianca | | | | |
| S.Giovanni Profiamma | | | | |
| S.Maria ..parronto | | | | |
| Surbbi | | | | |
| Umbano | | | | |
| Vaiani | | | | |
| Villa Pattuca | | | | |
| Total ..... | 5.920 | 5.920 | 3.980 | Insufficient stream flow. |
| Total generating capacity operating but not connected to Rome Grid as of 30 Nov. 44 | | | 39.630 | |



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T A B L E "C"

Comparison of Plant Capacity in Kilowatts between November 15th and November 30th.

| Station | November 15th | | November 30th | | Difference | |
|---|---|---|---|---|---|---|
| | Rome Grid KW | Non Grid KW | Rome Grid KW | Non Grid KW | Rome Grid KW | Non Grid KW |
| Altolia ..... | - | 550 | - | 550 | - | - |
| Arci ..... | 4.100 | - | 4.200 | - | + 100 | - |
| Bolognola ..... | - | 650 | - | 1.200 | - | + 550 |
| Carsoli ..... | - | 300 | - | 300 | - | - |
| Cornara ..... | 3.500 | - | 7.000 | - | + 3.500 | - |
| Dorsara ..... | - | 6.400 | - | 7.000 | - | + 600 |
| Comunacque ..... | 4.600 | - | 4.700 | - | + 100 | - |
| Farfa II ..... | 3.050 | - | 3.800 | - | + 740 | - |
| Fontana ..... | - | 500 | - | 500 | - | - |
| Fiorentella ..... | 700 | - | 700 | - | - | - |
| Inviolata (Castelnuovo) .... | - | 6.000 | - | 3.000 | - | - 3.000 |
| Liri Piper Hill. | 1.100 | - | 1.200 | - | + 00 | - |
| Livorno ..... | - | - | - | 1.900 | - | + 1.900 |
| Nera Montoro ... | 500 | 9.500 | - | 12.500 | - 500 | + 3.000 |
| Podaio ..... | - | 1.200 | - | 2.250 | - | + 1.050 |
| Tiorano ..... | - | 1.300 | - | 1.400 | - | + 100 |
| Rome Thermal ... | 21.000 | - | 23.000 | - | + 2.000 | - |
| Rosignano ..... | - | 800 | - | 2.000 | - | + 1.200 |
| San Savino ..... | 700 | - | 700 | - | - | - |
| Scalello ..... | 3.660 | - | 4.000 | - | + 340 | - |
| Subiaco ..... | 3.300 | - | 3.200 | - | - 100 | - |
| Turquinia ..... | 175 | - | 175 | - | - | - |
| Terni Jutifici . | - | - | - | 1.000 | - | 1.000 |
| Terni Old ..... | - | 150 | - | 150 | - | - |
| Terni Pl co .... | - | 1.500 | - | 1.500 | - | - |
| Terni Steel .... | - | 500 | - | 500 | - | - |
| Trapezio ..... | 500 | - | 500 | - | - | - |
| Vosta ..... | 2.200 | - | 2.200 | - | - | - |
| Vulci ..... | 1.500 | - | 1.200 | - | - 100 | - |
| 12 Small Plants Rome Area (listed in Table A.) | 550 | 95 | | - | | - 95 |
| 1 Small Plant Rome Area (listed in Table A.) | - | - | 1.125 | - | + 595 | - |
| 25 Small Plants UMBRA Area (listed in Table B) | - | 3.550 | - | | - | + 450 |
| 3 Small Plants UMBRA Area (listed in Table B.) | - | - | - | 3.980 | - | - |
| Net Total KW ..... | 51.005 | 32.975 | 57.700 | 50.630 | 6.695 | 6.655 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| Barbara ..... | - | - | 7.000 | - | + 3.500 | - |
| Cosmaiuta ..... | 4.500 | 6.400 | - | 7.000 | - | - |
| Part II ..... | 3.060 | - | 4.700 | - | + 100 | + 600 |
| Pratipalla ..... | - | - | 3.500 | - | + 740 | - |
| Fiorirolla ..... | 700 | 500 | - | 500 | - | - |
| Lorlarilla ..... | - | - | 700 | - | - | - |
| Santalunare ..... | - | 6.000 | - | 3.000 | - | - 3.000 |
| Livi Paperilli. | 1.180 | - | 1.200 | - | + 20 | - |
| Livorno ..... | - | - | - | 1.800 | - | + 1.000 |
| Nero Montoro ... | 500 | 3.500 | - | 12.500 | - 500 | + 3.000 |
| Pedaso ..... | - | 1.400 | - | 2.250 | - | + 1.050 |
| Pisa ..... | - | 1.300 | - | 1.400 | - | + 100 |
| Roma Thermal ... | 21.000 | - | 23.000 | - | + 2.000 | - |
| Rosignano ..... | - | 800 | - | 2.000 | - | + 1.200 |
| San Savino ..... | 700 | - | 700 | - | - | - |
| Sellello ..... | 2.500 | - | 4.000 | - | + 340 | - |
| Subiaco ..... | 5.300 | - | 5.200 | - | - 100 | - |
| Turgulnia ..... | 170 | - | 175 | - | - | - |
| Terni Old ..... | - | - | - | 1.000 | - | 1.000 |
| Terni Plants .... | - | 150 | - | 150 | - | - |
| Terni Steel .... | - | 1.500 | - | 1.500 | - | - |
| Trapanese ..... | 500 | 500 | - | 500 | - | - |
| Vesta ..... | 2.200 | - | 500 | - | - | - |
| Vulci ..... | 1.300 | - | 2.200 | - | - | - |
| 12 Small Plants Rome Area (listed in Table A) | 530 | - | 1.200 | - | - 100 | - |
| 1 Small Plant Rome Area (listed in Table A) | - | 95 | 1.125 | - | + 595 | - 95 |
| 25 Small Plants Milan Area (listed in Table B) | - | - | - | - | - | - |
| 3 Small Plants Milan Area (listed in Table B) | - | 3.530 | - | 3.980 | - | + 450 |
| | - | - | - | | - | - |
| Not Included in ..... | 51.005 | 32.975 | 57.700 | 53.630 | 6.655 | 6.655 |
| Grand TOTAL including Rome Grid and Milan Grid | 83.980 | | 97.330 | | 13.330 | |

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ANNEX "D"

Recapitulation of Estimated Generating Capacity in kilowatts

| Reason for increase | Dec. 15th KW | Jan. 15th KW | Feb. 15th KW | Mar. 15th KW |
|---|---|---|---|---|
| Restored Units ..... | 41.800 | 40.100 | 10.000 | 57.950 |
| Transferred Units ..... | 4.300 | 1.300 | 100 | - |
| Changed status Ins. .... | 7.000 | 5.000 | - | - 10.000 |
| Total estimated increase in generating capacity over 30 November 1944... | 53.100 | 93.700 | 109.800 | 157.850 |
| Generating capacity as of 30 November 1944 .. | 97.330 | 97.330 | 97.330 | 97.330 |
| Total estimated generating capacity..... | 150.430 | 197.030 | 207.210 | 255.160 |
| The approximate break-down of which is: | | | | |
| Grid..... | 103.700 | 144.500 | 154.500 | 186.700 |
| Non Grid ..... | 46.730 | 52.530 | 52.710 | 68.460 |



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| | | | | |
|---|---|---|---|---|
| [illegible] ..... | 4.500 | 1.500 | 100 | - |
| Chemical stock flow .... | 7.000 | 5.000 | - | - 10.000 |
| Total estimated increase in generating capacity over 30 November 1944... | 52.100 | 93.700 | 109.000 | 157.830 |
| Generating capacity as of 30 November 1944 .. | 97.330 | 97.330 | 97.330 | 97.330 |
| Total estimated generating capacity..... | 150.430 | 197.030 | 207.210 | 255.160 |
| The aggregate break-down of which is: | | | | |
| Grid..... | 103.700 | 144.500 | 154.500 | 186.700 |
| Non Grid ..... | 46.730 | 52.530 | 52.710 | 68.460 |



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(Table "D" continued)

| Reason for Increase | Nov. 15th KW | Dec 15th KW | Jan 15th KW |
|---|---|---|---|
| Required Units ..... | 35.000 | - | 4.000 |
| Transferred Units ..... | - | - | - |
| Changed stream flow ..... | - 10.000 | - | - |
| Total estimated increase in generating capacity over 30 November 1944 ..... | 182.830 | 182.830 | 186.830 |
| Remainder Capacity as of 30 November 1944 ..... | 97.330 | 97.330 | 97.330 |
| Total estimated generating capacity ..... | 280.160 | 280.160 | 284.160 |
| The approximate breakdown of which is: | | | |
| Grid ..... | 214.700 | 214.700 | 218.700 |
| Non Grid ..... | 65.460 | 65.460 | 65.460 |

Purchases beyond March the 15th are to be considered as incomplete. Further details are omitted from future reports.



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| | | | |
|---|---|---|---|
| Transferred sets ..... | | | |
| Changed steam flow ..... | - 10.000 | - | - |
| Total estimated increase in generating capacity over 30 November 1944 ..... | 182.830 | 182.830 | 186.630 |
| Generating capacity as of 30 November 1944 ..... | 97.330 | 97.330 | 97.330 |
| Total estimated generating capacity ..... | 280.160 | 280.160 | 284.160 |
| The equivalent breakdown of which is: | | | |
| Grid ..... | 214.700 | 214.700 | 218.700 |
| Non Grid ..... | 65.460 | 65.460 | 65.460 |

Forecasts beyond March the 15th are to be considered as incomplete. Further details are omitted from future reports.



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Col. Olsen

ELECTRIC PLANT CONDITION

CENTRAL ITALY

15 November - 1944

ELECTRICAL DIVISION

PUBLIC WORKS AND UTILITIES

Sub-Commission

HEADQUARTERS ALLIED COMMISSION

APO 394

Declassified E.O. 12356 Section 3.3/NND No. 785019

ROME

The electricity situation in Rome continued to improve during the past two weeks.

The betterment has resulted from increased stream flow, and from the output of units recently started at the Capranc and Farfa II plants. The maximum generated peak on the Rome network since Allied occupation occurred on the night of 15 November and was 50,000 kilowatts.

The Rome steam plants continue to have a reliable output of about 21,000 KW. Two turbines at the ACEA plant are now out of operation, one 3,000 KW unit because of distorted end bells and the 6,000 KW unit because of internal rubbing. It is hoped that the 3,000 KW unit will resume operation in two weeks; the damage to the 6,000 KW is not yet definitely known but it is estimated that repairs will take at least one month. The result is that there is considerable unused boiler capacity at the ACEA plant. It is expected that some of this capacity will be utilized in the Roman plant on 18 November when the new steam connection between the two stations is scheduled to be placed in operation.

At the moment, a heavy transmission line reconstruction program is being carried out in Central Italy under the direction of No. 1 district. Also, as the result of arrangements initiated by A.A.I. and the Allied Commission, repairs are being started on certain railway transmission lines needed for transporting energy.

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Since 31 October the following generating Stations and transmission lines have been reported as resuming operation:

GENERATING STATIONS

| Station | Additional Capacity KW | Present output of additional capacity - KW | Date reported |
|---|---|---|---|
| Farfa II ..... | 4.200 | 3.060 | Nov.5th,1944 |
| No.4 small Plants connected to the UNES Grid: | | | |
| Cipolla | | | |
| Orsatti | | | |
| Fa Cecco | | | |
| Tevani | | | |
| Total ..... | 1.400 | 1.400 | Nov. 6th,1944 |
| Ceprano..... | 9.000 | 3.500 | Nov. 9th 1944 |
| TOTAL ..... | 14.600 | 7.960 | |

TRANSMISSION LINES

| | Length in Kilometers | | Date reported |
|---|---|---|---|
| A.C.E.A. | | | |
| 60 KV line between Pescacarese and Terni | 10 | | Nov.2nd |
| 150 KV line between Rome & Terni | 0,500 | 10.500 | do |
| S.R.E. | | | |
| 60 KV line between Rome & Terni | 0,350 | 0,350 | do |
| T.N.E.S. | | | |
| 30 KV line between Avezzano-Setuechio Molina | 42 | | |
| 30 KV line between Aquila & Buasi | 25 | 67.- | Nov.1st |
| TERNI | | | |
| 120(70) KV line between Terni & Spoleto | 21 | 21.- | Nov.4th |
| SELT - Valdarno - | | | |
| 30 KV line between Tavernuzze and Castelnuovo Sabbioni(2nd circ) | 27 | 27.- | Nov.7th |
| GRAND TOTAL ..... | | 125,850 Kilometers | |



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TABLE "A"

Details of Generating Stations in Central Italy operating and connected to the Rome Grid as of 15 November, 1944.

| Station | Plant Capacity KW | Normal Output KW | Present Output KW | Reasons for not maintaining normal output. |
|---|---|---|---|---|
| Arci | 4,400 | 4,000 | 4,100 | Low stream flow |
| Tiepraro | 9,000 | 9,000 | 3,500 | 5,500 KW unit not yet repaired. |
| Castromoqua | 8,000 | 7,000 | 4,500 | Low stream flow |
| Turbo II | 4,200 | 4,200 | 3,000 | Set not yet completely repaired. |
| Liri Paper Mill | 5,000 | 3,000 | 1,100 | One set destroyed |
| Mara Tontoro | 4,000 | 3,000 | 900 | Low stream flow |
| Rome Thermal | 49,000 | 39,200 | 2,000 | At ACEA. 3 Diesel oil boilers under repairs. First one expected to operate within few days. One 5,000 KW Diesel under repair. One 3000 KW turbine out because of distorted oil bells on generator. One 5000 KW turbine out because of internal rubbing. Extent of damage to this machine not known yet. Shaft labyrinth badly damaged. Shaft alignment to be checked. At SRE - one 10,000 KW unit still vibrates badly. |

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(table "A" continue)

| Station | Rent Capacity KW | Normal Output KW | Present Output KW | Reasons for not maintaining normal output |
|---|---|---|---|---|
| S. Savino | 800 | 700 | 700 | Has operated during short periods, but is presently out while efforts being made to reduce vibration. |
| Sonelle | 6,000 | 6,000 | 3,660 | Low stream flow |
| Subiaco | 7,000 | 3,500 | 3,300 | One unit destroyed. Low Stream Flow. |
| Terquinio | 340 | 300 | 175 | Low transformer capacity. |
| Trapanzo | 850 | 500 | 500 | - |
| Vasta | 2,400 | 2,400 | 2,200 | Low stream flow |
| Valoi | 3,826 | 2,500 | 1,300 | do |
| 10 Plants Rome Area: | | | | |
| Acquedotto | | | | |
| Cerbinale | | | | |
| Corchiano | | | | |
| Farfigna | | | | |
| Forcha | | | | |
| Molino di Ponte | | | | |
| Scarcete | | | | |
| Torrano | | | | |
| Valle Distr: | | | | |
| Verna | 1,610 | 1,610 | 530 | Low stream flow |
| Total generating capacity operating and connected to Rome (rid as of 15 Nov. 1944 | | | 51,005 | |



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TABLE "B"

Details of generating stations in Central Italy, operating but not connected to the Rome Grid as of 15 November 1944.

| Station | Plant Capacity KW | Normal Output KW | Present Output KW | Reasons for not maintaining normal output |
|---|---|---|---|---|
| Altolina | 1,105 | 800 | 550 | Low stream flow |
| Bolognola | 2,750 | 1,375 | 650 | do |
| Carassai | 1,050 | 700 | 300 | do |
| Cervara | 9,640 | 8,000 | 6,400 | Units damaged |
| Farinola | 1,050 | 500 | 500 | Two sets destroyed |
| Larderello and Castelnuovo | 126,000 | 100,000 | 6,000 | Units damaged |
| Nera Montoro | 16,000 | 12,000 | 9,500 | Low stream flow |
| Passo | 4,500 | 2,250 | 1,200 | do |
| Piorace | 1,500 | 1,500 | 1,300 | do |
| Rosignano | 12,000 | 12,000 | 800 | Damaged |
| Terni Cl. | 3,150 | 150 | 150 | Three units destroyed |
| Terni Plate | 1,500 | 1,500 | 1,500 | |
| Terni Steel | 2,100 | 500 | 500 | One unit destroyed. |
| 2 Plants Rome Area - Fossanova - Valocusano Total | 180 | 180 | 95 | Low stream flow |
| 25 Plants UNES Area - Ambro Canotra Castel Raimondo Cesca Palombo Cipolla De Cecco | | | | |

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(Table "B" continued)

| Station | Plant Capacity Kw | Normal Output Kw | Present Output Kw | Reasons for not maintaining normal output |
|---|---|---|---|---|
| Franciolini | | | | |
| Lanciano | | | | |
| Molino Agugliano | | | | |
| Molino Nuovo | | | | |
| Monte Molino | | | | |
| M. S. Martino | | | | |
| Orsatti | | | | |
| Orvieto | | | | |
| Paubuffetti | | | | |
| Pieve Bovigliana | | | | |
| Pioraco | | | | |
| Ponte Felcino | | | | |
| Ripabianca | | | | |
| S.Giovanni Profiamma | | | | |
| S.Maria Apparente | | | | |
| Sorbini | | | | |
| Sugano | | | | |
| Tavani | | | | |
| Villa Potenza I | | | | |
| Total .... | 5,470 | 5,470 | 3,530 | low stream flow. |
| Total generating capacity operating but not connected to Rome grid as of 15 Nov.44 | | | 32,975 | |

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TABLE "C"

Comparison of Plant Capacity in kilowatts between Oct. 31 & Nov. 15

| Station | October 31th | | November 15th | | Difference | |
|---|---|---|---|---|---|---|
| | Rome Grid KW | Non Grid KW | Rome Grid KW | Non Grid KW | Rome Grid KW | Non Grid KW |
| Altolina | | 550 | | 550 | | |
| Arci | 3.380 | | 4.100 | | +720 | - |
| Bagni Tivoli | 250 | | - | | -250 | - |
| Bolognola | - | 650 | - | 650 | - | - |
| Cornacni | | 300 | | 300 | - | - |
| Cerrano | - | - | 3.500 | - | +3.500 | - |
| Carvara | 6.400 | - | - | 6.400 | - | - |
| Comunacqua | 3.160 | | 4.600 | - | +1.140 | - |
| Farfa II | - | - | 3.060 | - | +3.060 | - |
| Farinola | - | 500 | - | 500 | - | - |
| Fiorittalla | 700 | | 700 | | - | - |
| Lariarello & Castelnuovo | 6.000 | - | 6.000 | | - | - |
| Liri Paper Mill | 1.180 | - | 1.180 | - | - | - |
| Nera Montoro | 500 | 9.500 | 500 | 9.500 | | |
| Pelago | | 1.000 | | 1.200 | - | + 200 |
| Piorneo | - | 1.300 | - | 1.300 | - | - |
| Rome Thermal | 21.000 | | 21.000 | | | - |
| Rosiglano | - | 800 | - | 800 | | |
| S.Savino | 700 | - | 700 | | | |
| Scalelle | 2.800 | - | 3.660 | | +860 | |
| Subiaco | 3.200 | | 3.300 | | +100 | |
| Tarquinia | 175 | | 175 | - | - | - |
| Terni Old | - | 150 | | 150 | - | - |
| Terni Plate | - | 1.500 | | 1.500 | - | |
| Terni Steel | - | 500 | | 500 | | |
| Trapongo | 500 | - | 500 | | - | |
| Vesta | 2.200 | - | 2.200 | - | - | - |
| Vulci | 1.000 | - | 1.300 | | +300 | |



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(Table "C" continued)

| Station | October 31th | | November 15th | | Difference | |
|---|---|---|---|---|---|---|
| | Rome Grid KW | Non Grid KW | Rome Grid KW | Non Grid KW | Rome Grid KW | Non Grid KW |
| 12 small Plants | | | | | | |
| Rome Area | | | | | | |
| (listed in Table | | | | | | |
| A & B) | 530 | 95 | 530 | 95 | - | - |
| 21 small plants | | | | | | |
| UNES Area | | | | | | |
| (listed in table B) | 2.130 | | 2.130 | - | - | - |
| 4 small plants | | | | | | |
| UNES Area | | | | | | |
| (listed in tabl B) | | | | 1.400 | | +1.400 |
| NET TOTAL KW | 41575 | 31375 | 51005 | 32975 | +9430 | +1600 |
| Grand Total | | | | | | |
| Including Rome | | | | | | |
| Grid & non grid | 72.950 | | 83.980 | | 11.030 | |

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TABLE "D"

Detailed estimate of future electric Generating Capacity.

| Station | Capacity increase kilowatts | Reason for increase |
|---|---|---|
| November 30 | | |
| Aurelia | 500 | Activation |
| Ceprano | 3.500 | Repairs in' set |
| Cervara | 3.200 | Repairs |
| Farfa II | 1.000 | Co pletion of repairs. |
| Ler'erello | 900 | Repairs |
| Terni Jutif | 1.100 | do |
| December 15 | | |
| Aurelia | 1.500 | Mov. Transform |
| Acquoria | 3.500 | Mov. from Ceprano |
| Galleto | 35.000 | Repairs |
| Lama Poligni | 1.000 | do |
| Selvena | 2.000 | do |
| | 7000 | Stream Flow. |
| December 31 | | |
| Bagni Tivoli | 300 | Repairs |
| | 5.000 | Stream Flow |
| January 15, 1945 | | |
| Galleto | 35.000 | Repairs |
| Molina Aterno | 300 | Movement |
| Pet'orano | 320 | Movement |
| Taranta Peligna | 4.500 | Repairs |



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(Table "I" continued)

| Station | Capacity increase kilowatts | Reason for increase |
|---|---|---|
| January 31 | | |
| Cantorno | 10.000 | Repairs |
| February 28 | | |
| Galleto | 35.000 | Repairs |
| Ponte Fiume | 3.200 | do |
| Veramartello | 3.750 | do |
| March 15 | | |
| Castelnuovo | 12.000 | Repairs |
| Gerosa | 1.000 | do |
| | -10.000 | Decreased Stream Flow. |

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T A B L E "T"

Recapitulation of Estimated Generating Capacity in kilowatts.

| Reason for increase | Nov.30 KW | Dec.15 KW 1944 | Jan.15 KW 1945 | Feb.15 KW | Mar.15 KW |
|---|---|---|---|---|---|
| Repaired units | 12.200 | 38.000 | 39.800 | 10.000 | 57.950 |
| Transferred units | - | 5.000 | 620 | - | - |
| Changed Stream Flow ..... | - | 7.000 | 5.000 | - | -10.000 |
| Total estimated increase in generating capacity over 15 Nov. 1944 | 12.200 | 50.200 | 107.620 | 117.620 | 165.570 |
| Generating capacity as of 15 november 44 | 83.980 | 83.980 | 83.980 | 83.980 | 83.980 |
| Total estimated generating capacity | 96.180 | 146.180 | 191.600 | 201.600 | 249.550 |
| The approximate break-down of which is | | | | | |
| Grid | 58.005 | 105.005 | 144.305 | 154.305 | 186.505 |
| Non -grid | 38.175 | 41.175 | 47.295 | 47.295 | 63.045 |



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Col. Lapper

# ELECTRIC PLANT CONDITION
# CENTRAL ITALY
## 31 OCTOBER 1944

ELECTRICAL DIVISION
PUBLIC WORKS AND UTILITIES
SUB-COMMISSION
HEADQUARTERS ALLIED COMMISSION
APO 394

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FOREIGN

Developments of interest in Central Italy electricity circles since the last two weeks are as follows:

(a) A new program for the rationing of the electric power in Rome, prepared by the Rome Allied Area Command, is expected to start on 1 November. The program calls for more electricity to be made available for civilian use.

(b) The Rome steam plants are operating more reliably recently. More fuel is being received at these plants, although up to now the fuel supply has limited the output of the S.R.E. station. A new difficulty has recently arisen at the A.C.E.... plant, in that the high stage of the Tiber has caused debris to be carried into the condensers at the A.C.E.A. plant, and decontamination frequent cleanings.

(c) One unit at Comuno coal and at Farfa are running short [illegible] to the amount to dry the chimneys, prior to being connected to the system. Both Comuno units, as well as the one at Farfa are expected to be on the line by 7 November.

(d) The frequency of the Terni 50 cycles system has been very low during last two weeks. A satisfactory solution to this problem has not yet been reached. However it is being actively studied cooperatively by AAI, No. 1 District, and the Allied Commission.

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Since 15 October the following generating stations and transmission lines have been reported as resuming operation:

GENERATING STATIONS

| Station | Additional kilowatt capacity KW | Present output of additional capacity KW | Date reported |
|---|---|---|---|
| Lirl Paper Mill..... | 3,000 | 1,100 | Oct. 26th |
| Fiorucci (Ist.Pol.Stato).... | 1,500 | 1,300 | do |
| 3 Small Umbrian Stations: | | | |
| Frangiolini | | | |
| Molino Agugliano | | | |
| Ripa Bianca | | | |
| Total..... | 1,560 | 430 | Oct. 25th |
| 3 Small Ligurian Stations: | | | |
| Castel Raimondo | | | |
| Consiglio Abo | | | |
| Lanciano | | | Oct. 26th |
| Total..... | 350 | 230 | |
| TOTAL..... | 6,410 | 3,160 | |

TRANSMISSION LINES

| | Lenght in Kilometers | Date Reported |
|---|---|---|
| A.C.E.A. | | |
| 60 KV line between Passo Corese and Terni..... | 3 | Oct. 22nd |
| 60 KV line between Lunghezza and Tivoli..... | 11 | do |
| | 14 | |
| S.R.E. | | |
| 60 KV line between Rome and Terni (near Colonnetta) | 0.65 | Oct. 21st |
| | 0.65 | |
| U.N.E.S. | | |
| 30 KV line between Arsoli and Palombara..... | 11 | Oct. 16th |
| 30 KV line between Tornimparte and Poggiova..... | 48 | do |
| | 59 | |
| GRAND TOTAL..... | 73.65 kilometers | |

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TABLE "A"

Details of Generating Stations in Central Italy, operating and connected to the Rome Grid as of 31 October 1944.

| Station | Plant Capacity kw | Normal output kw | Present output kw | Reasons for not maintaining normal output |
|---|---|---|---|---|
| Arci | 4,800 | 4,200 | 3,380 | Low stream flow. |
| Bagni Tivoli | 300 | 300 | 250 | do |
| Comunelle | 8,000 | 7,000 | 3,460 | do |
| Fiuggi | 800 | 700 | 700 | |
| Liri Paper Mill | 5,000 | 3,000 | 1,180 | One set destroyed. |
| Nera Montoro | 4,000 | 3,000 | 500 | Low stream flow. |
| Rome Thermal | 49,000 | 39,000 | 21,000 | At ACEA: Three oil fired boilers under repair. One 5,000 KW Diesel under repair. Grounded field on one 3,000 KW Turbine Generator. At SIE.: Insufficient fuel supply to generate more than 14,000 KW. |
| San Savino | 800 | 700 | 700 | |
| Scalelle | 8,000 | 6,000 | 2,800 | Low stream flow. |
| Subiaco | 7,000 | 3,500 | 3,200 | One set destroyed. Low stream flow. |
| Tarquinia | 340 | 300 | 175 | Low stream flow and insufficient Transformer capacity. |
| Traponzo | 850 | 500 | 500 | |
| Vomero | 2,400 | 2,400 | 2,200 | Low stream flow. |
| Vulci | 3,826 | 2,500 | 1,000 | do |
| 10 Plants Rome Area: Acquabella, Cardinale, Corchiano, Farfica, Forchia, Molino di Ponte, Scarpeto, Turano, Valle Piatta, Verna | | | | |
| TOTAL | 1,610 | 1,610 | 530 | |
| Total generating capacity operating and connected to Rome grid as of 31 Oct. 1944 | | | 41,575 | |

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# TABLE "B"

Details of generating stations in Central Italy, operating but not connected to the Rome Grid as of 31 October 1944.

| Station | Plant Capacity kw | Normal Output kw | Present Output kw | Reasons for not maintaining normal output |
|---|---|---|---|---|
| Altolia | 1,105 | 800 | 550 | Low stream flow. |
| Belogiola | 2,750 | 1,375 | 650 | do |
| Curasani | 1,050 | 700 | 300 | do |
| Corvara | 9,640 | 8,000 | 6,400 | Units damaged. |
| Farindola | 1,050 | 500 | 500 | Two sets destroyed. |
| Lardarello and Castelnuovo | 126,000 | 100,000 | 6,000 | Units damaged. |
| Nera Montoro | 16,000 | 12,000 | 9,500 | Low stream flow. |
| Pedaso | 4,500 | 2,250 | 1,000 | do |
| Piorace | 1,500 | 1,500 | 1,300 | do |
| Rosignano | 12,000 | 12,000 | 800 | Damaged. |
| Terni Oli | 3,150 | 150 | 150 | Three Units Destroyed. |
| Terni Plate | 1,500 | 1,500 | 1,500 | |
| Terni Steel | 2,100 | 500 | 500 | One Unit destroyed. |
| 2 Plants Rome Area: Fossanova, Vadocuneno Total | 180 | 180 | 95 | Low stream flow. |
| 21 Plants UNES Area: Ambro, Canetra, Cantal Pulsando, Casal Palombo, Franciolini, Lanciano, Molini Artiglieno, Molino Nuovo, Monte Molino, Monte S.Martino, Orvieto, Panbuffetti, Piove Bovigliana, Piorico, Ponte Felcino, Ripabianca, San Giovanni Profiamma, Santa Maria Apparente, Serdini, Sugano, Villa Potenza I Total | 4,070 | 4,070 | 2,130 | Low stream flow. |
| Total generating capacity operating but not connected to Rome grid as of 31 Oct.1944 | | | 31,375 | |

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TABLE "C"

Comparison of Plant Capacity in kilowatts between October 15th and October 31st.

| Station | October 15th | | October 31st | | Difference | |
|---|---|---|---|---|---|---|
| | Rome grid KW | Non grid KW | Rome grid KW | Non grid KW | Rome grid KW | Non grid KW |
| Altolia | | 550 | | 550 | | - |
| Arci | 2,300 | | 3,380 | | + 1,080 | |
| Bagni Tivoli | 250 | | 250 | | - | |
| Bolognola | | 650 | | 650 | | - |
| Cursoli | | 300 | | 300 | | - |
| Cervara | | 6,400 | | 6,400 | | - |
| Comunanza | 2,600 | | 3,460 | | + 860 | |
| Farindola | | 500 | | 500 | | - |
| Fioritoli | 700 | | 700 | | | |
| Lavorello and Castelnuovo | | 6,000 | | 6,000 | | - |
| Liri Paper Mill | | | 1,100 | | + 1,100 | |
| Nera Montoro | 5,000 | 7,000 | 500 | 9,500 | - 4,500 | + 2,500 |
| Podalo | | 1,000 | | 1,000 | | - |
| Piorco | | | | 1,300 | | + 1,300 |
| Rome Fiorelli | 19,000 | | 21,000 | | + 2,000 | |
| Rocigliano | | 800 | | 800 | | - |
| San Savino | 700 | | 700 | | - | |
| Scalello | 2,800 | | 2,800 | | - | |
| Subiaco | 2,800 | | 3,200 | | + 400 | |
| Tarquinia | 175 | | 175 | | - | |
| Terni Cit | | 150 | | 150 | | - |
| Terni Pluto | | 1,400 | | 1,500 | | + 100 |
| Terni Steel | | 500 | | 500 | | - |
| Trapongo | 500 | | 500 | | - | |
| Vasta | 2,200 | | 2,200 | | - | |
| Vulci | 1,000 | | 1,000 | | - | |
| 12 small Plants Rome Area (listed in Tables A & B) | 530 | 95 | 530 | 95 | - | - |
| 15 Small Plants (UIE) Area (listed in table D) | | 1,150 | 2,130 | | | + 980 |
| 6 Small Plants (UIE) Area (listed in Table B) | | | | | | |
| Net Total KW | 40,755 | 26,495 | 41,575 | 31,375 | + 820 | + 4,880 |
| GRAND TOTAL Including Rome Grid and non Grid | 67,250 | | 72,950 | | + 5,700 | |

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TABLE "D"

Recapitulation of Estimated Generating Capacity in Kilowatts

| Reason for Increase | Nov.15 kw | Dec.15 kw | Jan.15 kw | Feb.15 kw | Mar.15 kw |
|---|---|---|---|---|---|
| Repaired units..... | 17,300 | 38,600 | 35,000 | 10,000 | 57,950 |
| Transferred units..... | - | 5,000 | 620 | - | - |
| Changed steam flow..... | 12,700 | 7,000 | 5,000 | - 10,000 | - |
| Total estimated increase in gross kilowatt capacity over 31 October 1944..... | 30,000 | 50,600 | 121,220 | 121,220 | 179,170 |
| Generating capacity as of 31 October 1944..... | 72,950 | 72,950 | 72,950 | 72,950 | 72,950 |
| Total estimated generating capacity..... | 102,950 | 153,550 | 194,170 | 194,170 | 252,120 |
| The approximate break-down of which is: | | | | | |
| Grid ..... | 62,275 | 109,275 | 148,275 | 151,275 | 189,475 |
| Non-grid ..... | 40,675 | 44,275 | 45,895 | 42,895 | 62,645 |

Col. Lapper

# ELECTRIC PLANT CONDITION

# CENTRAL ITALY

15 OCTOBER 1944

ELECTRICAL DIVISION
PUBLIC WORKS AND UTILITIES
SUB-COMMISSION
HEADQUARTERS ALLIED CONTROL COMMISSION
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# ELECTRIC PLANT CONDITION

# CENTRAL ITALY

15 OCTOBER 1944

ELECTRICAL DIVISION
PUBLIC WORKS AND UTILITIES
SUB-COMMISSION
HEADQUARTERS ALLIED CONTROL COMMISSION
APO 394



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# F O R E W O R D

During the past two weeks, there has been a very noticeable increase of 17,220 kilowatts of generating capacity in Central Italy. This increase has mostly resulted from:

(a) The somewhat improved output of the Rome Steam Plants.

(b) Increased stream flow to the hydro plants.

(c) The starting of another unit at Cervara.

In order to facilitate the operation of the two steam plants in Rome, they have been placed under the direction of a single superintendent. One Diesel unit at the ACEA plant is in operating condition, and is used during peak load periods. The field of one 5,000 KW unit in the same plant is damaged and under repair; the starting date is not known. However work done on the other 5,000 KW unit has been finished, it is now being dried out, and is expected to be carrying load within a few days. Use of this machine will again enable the electric auxiliaries of the two plants to be supplied from a seperate, and more positive source. Indications are that the plants will soon receive a greater supply of coal. In the meantime, however, the coal storage is decreasing.

The movement of several large transformers from Rome to Terni is now under way. This equipment will be used when operation is resumed at Colleto.

A previous estimate placed Cepruno in operation by 15 October. There have been difficulties in meeting this schedule, and it is now believed that the two units will not be in service until the end of the month, at least. To expedite this job an officer of Public Works and Utilities Sub-Commission has been assigned to concentrate his time on the work at this plant.

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T A B L E "A"

Details of Generating Stations in Central Italy, operating, and connected to the Rome Grid as of 15 October 1944.

| Station | Plant Capacity kw | Normal Output kw | Present Output kw | Reasons for not maintaining normal output |
|---|---|---|---|---|
| Anci..... | 4,800 | 4,200 | 2,300 | Low stream flow |
| Rome Thermal... | 49,000 | 39,000 | 19,000 | One 5000 KW Diesel under repair, one 10,000 KW steam turbine unavailable (excessive vibration). |
| Castrocqua..... | 8,000 | 7,000 | 2,800 | Low stream flow. |
| Scalelle..... | 8,000 | 7,000 | 2,800 | do |
| Subiaco..... | 7,000 | 3,500 | 2,800 | One set destroyed - Low stream flow. |
| Vesta..... | 2,400 | 2,400 | 2,200 | Low stream flow. |
| 10 Little Stations R.A... | 1,610 | 1,610 | 530 | do |
| Floritella..... | 800 | 700 | 700 | |
| S.Savino..... | 800 | 700 | 700 | |
| Tamponso..... | 850 | 500 | 500 | |
| Vulci..... | 3,826 | 2,500 | 1,000 | Low stream flow. |
| Tarquinia..... | 340 | 300 | 175 | Water shortage and insufficient transformer capacity. |
| Nera Montoro... | 10,000 | 7,500 | 5,000 | Low stream flow. |
| Bagni di Tivoli | 300 | 300 | 250 | do |
| Total generating capacity operating and connected to Rome grid as of 15 Oct.1944 | | | 40,755 | |



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T A B L E " B "

Details of generating stations in Central Italy, operating but not connected to the Rome Grid as of 15 October 1944.

| Station | Plant Capacity kw | Normal Output kw | Present Output kw | Reasons for not maintaining normal output |
|---|---|---|---|---|
| 2 Small stations R.A..... | 180 | 180 | 95 | Low stream flow. |
| Lucherello and Castelnuovo..... | 126,000 | 100,000 | 6,000 | Units damaged. |
| Altolira..... | 1,105 | 800 | 550 | Low stream flow. |
| Bolognola..... | 2,750 | 1,575 | 650 | do |
| Carpinaci..... | 1,050 | 700 | 300 | do |
| Pedace..... | 4,500 | 2,250 | 1,000 | do |
| 15 Small plants. | 2,160 | 2,160 | 1,150 | do |
| Terminola..... | 1,050 | 500 | 500 | Two sets destroyed. |
| Terni Plato..... | 1,500 | 1,500 | 1,400 | Maximum output in present condition. |
| Terni Steel..... | 2,100 | 500 | 500 | One unit destroyed. |
| Terni Old..... | 3,150 | 150 | 150 | Three units destroyed. |
| Cervara..... | 9,640 | 8,000 | 6,400 | Units damaged. |
| Nera Montoro.... | 10,000 | 7,500 | 7,000 | Low stream flow. |
| Rosignano..... | 12,000 | 12,000 | 800 | Damaged. |
| Total generating capacity operating but not connected to Rome grid as of 15 Oct.1944 | | | 26,495 | |



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| | | | | |
|---|---|---|---|---|
| 2 Small stations R.A..... | 180 | 180 | 95 | Low stream flow. |
| Lardarello and Castelnuovo..... | 126,000 | 100,000 | 6,000 | Units damaged. |
| Altolira..... | 1,105 | 800 | 550 | Low stream flow. |
| Bolegnola..... | 2,750 | 1,375 | 650 | do |
| Chiusdi..... | 1,050 | 700 | 300 | do |
| Follano..... | 4,500 | 2,250 | 1,000 | do |
| 15 Small plants. | 2,160 | 2,160 | 1,150 | do |
| Farindola..... | 1,050 | 500 | 500 | Two sets destroyed. |
| Terni Plato..... | 1,500 | 1,500 | 1,400 | Maximum output in present condition. |
| Terni Steel..... | 2,100 | 500 | 500 | One unit destroyed. |
| Terni Old..... | 3,150 | 150 | 150 | Three units destroyed. |
| Cervara..... | 9,640 | 8,000 | 6,400 | Units damaged. |
| Nera Montoro.... | 10,000 | 7,500 | 7,000 | Low stream flow. |
| Rosignano..... | 12,000 | 12,000 | 800 | Damaged. |
| | | | ..... | |
| Total generating capacity operating but not connected to Rome grid as of 15 Oct.1944 | | | 26,495 | |



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# TABLE "C"

Comparison of Plant Capacity in Kilowatts between September 30th and October 15th, 1944

| Station | September 30th | | October 15th | | Difference | |
|---|---|---|---|---|---|---|
| | Rome grid KW | Non grid KW | Rome grid KW | Non grid KW | Rome grid KW | Non grid KW |
| Arci..... | 2,000 | | 2,300 | | + 300 | |
| Rome Thermal..... | 10,000 | | 19,000 | | + 9,000 | |
| Comunaque..... | 2,000 | | 2,800 | | + 800 | |
| Scalelle..... | 1,500 | | 2,800 | | + 1,300 | |
| Subiaco..... | 2,200 | | 2,800 | | + 600 | |
| Vesta..... | 2,000 | | 2,200 | | + 200 | |
| 12 Little Stations | | | | | | |
| R.A..... | 530 | 95 | 530 | | | |
| Fioritella..... | 700 | | 700 | | | |
| S.Sevino..... | 700 | | 700 | | | |
| Tyrrenic..... | 500 | | 500 | | | |
| Vulci..... | 1,000 | | 1,000 | | | |
| Larderello..... | | 6,000 | | 6,000 | | |
| Terni Steel..... | | 500 | | 500 | | |
| Terni CIA..... | | 150 | | 150 | | |
| Terni Plate..... | | 1,500 | | 1,400 | | - 100 |
| Carvara..... | | 4,800 | | 6,400 | | + 1,600 |
| Nera Montoro..... | 4,000 | 5,000 | 5,000 | 7,000 | + 1,000 | + 2,000 |
| Altolina..... | | 550 | | 550 | | |
| Bolognola..... | | 650 | | 650 | | |
| Carussai..... | | 450 | | 300 | | - 150 |
| Pedace..... | | 800 | | 1,000 | | + 200 |
| 10 Small plants.. | | 680 | | 680 | | |
| Farindola..... | | 500 | | 500 | | |
| Tarquinia..... | 175 | | 175 | | | |
| Rossignano..... | | 800 | | 800 | | |
| Bagni Tivoli..... | 250 | | 250 | | | |
| 5 Small plants... | | | | 470 | | + 470 |
| Net Total KW..... | 27,555 | 22,475 | 40,755 | 26,495 | + 13,200 | + 4,020 |
| GRAND TOTAL including Rome Grid and non Grid | 50,030 | | 67,250 | | + 17,220 | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| Arci..... | 2,000 | | 2,000 | | | |
| Rome Thermal..... | 10,000 | | 19,000 | | + 9,000 | |
| Camaracqua..... | 2,000 | | 2,800 | | - 800 | |
| Scalello..... | 1,500 | | 2,800 | | - 1,300 | |
| Subiaco..... | 2,200 | | 2,800 | | + 600 | |
| Vesta..... | 2,000 | | 2,200 | | + 200 | |
| 12 Little Stations | | | | | | |
| R.A..... | 550 | 95 | 550 | | | |
| Fiorito..... | 700 | | 700 | | | |
| S.Savino..... | 700 | | 700 | | | |
| Trapezio..... | 500 | | 500 | | | |
| Vulci..... | 1,000 | | 1,000 | | | |
| Lerderello..... | | 6,000 | | 6,000 | | |
| Terni Steel..... | | 500 | | 500 | | |
| Terni Old..... | | 150 | | 150 | | |
| Terni Plate..... | | 1,500 | | 1,400 | | - 100 |
| Carvara..... | | 4,800 | | 6,400 | | + 1,600 |
| Nera Montoro..... | 4,000 | 5,000 | 5,000 | 7,000 | + 1,000 | + 2,000 |
| Altolina..... | | 550 | | 550 | | |
| Bolognola..... | | 650 | | 650 | | |
| Carassai..... | | 450 | | 300 | | - 150 |
| Pedano..... | | 800 | | 1,000 | | + 200 |
| 10 Small Lambs.. | | 680 | | 680 | | |
| Farindola..... | | 500 | | 500 | | |
| Tarquinia..... | 175 | | 175 | | | |
| Rossignano..... | | 800 | | 800 | | |
| Bagni Tivoli..... | 250 | | 250 | | | |
| 5 Small plants... | | | | 470 | | + 470 |
| Net Total KW..... | 27,550 | 22,475 | 40,755 | 26,495 | + 13,200 | + 4,020 |
| GRAND TOTAL Including Rome Grid and non Grid | 50,030 | | 67,250 | | + 17,220 | |



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# TABLE "D"

Detailed Estimate of Future Electric Generating Capacity.

| Station | Capacity increase kilowatts | Reason for increase |
|---|---|---|
| | October 31st | |
| Picasco..... | 1,300 | Repairs |
| Terni Jut... | 1,100 | do |
| Aurelia..... | 500 | Activation |
| | 9,000 | Stream flow |
| Farfa II.... | 4,200 | Repairs |
| | November 15th | |
| Coprano..... | 9,000 | Repairs |
| Aurelia..... | 1,500 | Mov.Transformer |
| Larderello.. | 900 | Repairs |
| Poduso..... | 3,700 | Stream Flow. |
| | 9,000 | do |
| Cervara..... | 1,600 | Repairs |
| | November 30th | |
| Cervara..... | 1,600 | Repairs |
| | December 15th | |
| Selvena..... | 2,000 | Repairs |
| Acquacia.... | 3,500 | Mov.Transformer Coprano |
| Galleto..... | 35,000 | Repairs |
| | 7,000 | Stream flow. |
| | December 31st | |
| | 5,000 | Stream flow. |
| | January 15th | |
| Galleto..... | 35,000 | Repairs |
| Pottorano... | 320 | Movement |
| Molina Aterno | 300 | Movement |

| Station | Capacity increase kilowatts | Reason for increase |
|---|---|---|
| | January 31st | |
| Cantorno.... | 10,000 | Repairs |
| | February 15th | |
| | - 10,000 | Stream flow decrease. |
| | February 28th | |
| Galleto..... | 35,000 | Repairs |
| Vernamartello | 3,750 | do |
| Ponte Piano. | 3,200 | do |
| | March 15th | |
| Gerosa..... | 4,000 | Repairs |
| Castelnuovo. | 12,000 | do |
| | April 15th | |
| Galleto..... | 35,000 | Repairs |
| | - 10,000 | Stream flow decrease. |
| | June 15th | |
| Castelmadama | 4,000 | Repairs |
| | July 15th | |
| Mandela..... | 4,000 | Repairs |
| | August 15th | |
| Saliceno.... | 5,000 | Repairs |

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TABLE "B"

Recapitulation of Estimated Generating Capacity in Kilowatts.

| Reason for increase | Oct.31 kw | Nov.15 kw | Dec.15 kw | Jan.15 kw | Feb.15 kw | Mar.15 kw |
|---|---|---|---|---|---|---|
| Repaired units..... | 7,100 | 11,500 | 38,600 | 35,000 | 10,000 | 57,950 |
| Transferred units..... | - | 1,500 | 5,500 | 620 | - | - |
| Changed stream flow... | 9,000 | 12,700 | 7,000 | 5,000 | - 10,000 | - |
| Total estimated increase in generating capacity over 15 Oct, 194..... | 16,100 | 41,800 | 90,900 | 131,520 | 131,520 | 189,470 |
| Generating capacity as of 15 October 194..... | 67,250 | 67,250 | 67,250 | 67,250 | 67,250 | 67,250 |
| Total estimated generating capacity... | 83,350 | 109,050 | 158,150 | 198,770 | 198,770 | 256,720 |



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T A B L E " P "

TRANSMISSION LINES CONDITION
CENTRAL ITALY
15 October 1944

| Company | Operable Kilometers | Under Repair Kilometers | Damaged and Unrepaired Kilometers | TOTAL Kilometers |
|---|---|---|---|---|
| **230 KV. Transmission Lines** | | | | |
| Termi Company (1).... | 68 | - | 102 | 170 |
| **150 KV. Transmission Lines** | | | | |
| Societa' Romana di Elettricita'..... | 163 | 13 | 23 | 199 |
| Azienda Comunale Elettricita' Acque... | - | - | 94 | 94 |
| Termi Company..... | 62 | | 74 | 136 |
| Total Km. 150 KV lines | 225 | 13 | 191 | 429 |
| **120 KV. Transmission Lines** | | | | |
| Termi Company..... | 203 | | 7 | 210 |
| Selt Valdarno..... | | 27 | 206 | 233 |
| Total Km. 120 KV. lines | 203 | 27 | | 443 |
| **60 KV. Transmission Lines** | | | | |
| Societa' Romana di Elettricita'..... | 411 | 13 | 329 | 753 |
| Azienda Comunale Elettricita' Acque... | 138 | 90 | 80 | 308 |
| U.N.E.S..... | 410 | 95 | 70 | 575 |
| Termi Company..... | 97 | - | 7 | 104 |
| Selt Valdarno ..... | 426 | - | 370 | 796 |
| Total Km. 60 KV. lines | 1,482 | 198 | 856 | 2,536 |

(1) - This line built for 230 KV. previous to war was operated at 150 KV.

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TABLE "F" (continued)

| Company | Operable Kilometers | Under Repair Kilometers | Damaged and Unrepaired Kilometers | TOTAL Kilometers |
|---|---|---|---|---|
| | | 30 KV. Transmission Lines | | |
| Societa' Romana di Elettricita'..... | 331 | 7 | - | 338 |
| Azienda Comunale Elettricita' Acque.... | 95 | 25 | 18 | 138 |
| U.N.E.S. ..... | 697 | 168 | 226 | 1,091 |
| Terni Company..... | 20 | - | - | 20 |
| Selt Valdarno..... | 259 | 79 | 450 | 788 |
| Total Km. 30 KV. lines | 1,402 | 279 | 694 | 2,375 |
| GRAND TOTAL KILOMETERS | 3,380 | 517 | 2,056 | 5,953 |
| Percentage..... | 56,8% | 8,7% | 34,5% | |



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