

ACC 112/PWU

10000/150/672

TRANS
FEB. 19

10000/150/672

TRANSMISSION SYSTEMS
FEB. 1945 - MAR. 1946

TL 1221
 Dec. 255

11/22

HEADQUARTERS
 LAMARCA REGION ITALIAN GROUP
 ALLIED COMMISSION
 APO 39.

Ref. 11286

23-3-46

SUBJECT - Statistics - Electric Systems

TO - SADE - SIMA - MONTECATINI - AEMILIANO - POKALE - ~~Genova~~

| | | |

Reference our letter dated 14-2-46, please forward us the
 filled form, not yet received.

L. V. R. MURRI
 Executive Officer

5368

UNITED NATIONS RELIEF AND REHABILITATION ADMINISTRATION
 U.N.R.R.A.
 Bureau of Requirements and Distribution
 Sub-Bureau of Industrial Rehabilitation

Tel. 12641 Ext. 2255

EC/11.

Ref. 112/85

17 March, 1946

SUBJECT : Statistic - Electric System

TO : Industry & Utilities S.C. - Allied Commission - AFO 394 -
 Electrical Division
 (Att. Col. Parker)

According to your letter dated 1-2-46 - Ref. 197/PWU - we send you the data received till now from the following Companies :

A.F.I. PAICK
 Soc. Idr. Cigmon
 A.E. Consorziale
 S.I.P.

Milano
 Porto Marghera
 Bolzano e Merano
 Torino

A.E.M.

Torino already in your hand.

L.V.R. WHITE
 Acting Chief
 North Italy Office

Edison e Lit. Sp. 22 / 3 / 46

5367

Tb, 1234
cc, 2255

HEADQUARTERS
ICERADIA REGION LIAISON GROUP
ALLIED COMMISSION
APO 394

AM/LL

14, 2, 1946

Ref. 112/81

SUBJECT : Statistics - Electric System

TO : SIP - EDISON - SADE - SIMA - Montecchini AEM Milano
AEM. TORINO - SIT - Ponale - Cuneo - Bergamo - ~~Falk~~ -
(Cone -

1. According Alcon Industry & Utilities Sub. Com. letter, dated 8-2-46 (Ref. 197/PW) we send you the attached forms on generating plants, substations and transmission.

2. On the attached forms and set you will find some explanatory notes.

3. An attempt has been made to make these forms as brief as possible so as not to require you to prepare a large amount of detail.

4. With respect to generating plants, only those plants which were damaged need be reported on. The damaged plants in North Italy were not very many in number and the companies should have no difficulty in completing the form.

5. In order that we will have the correct figure, we would like to have the total installed capacity in hydro and thermal which each company had at the time of liberation. We would like to have this figure in order to check it against the data which we have obtained from other sources, but which we are not sure of being absolutely correct.

6. With respect to substations, we are asking for detail on only those substations of 30,000 KVA or larger in capacity. Substations of less than 30,000 KVA installed capacity can be lumped together in one figure. Distribution cabins are not to be reported on.

7. With respect to transmission lines the information is to cover those of 30,000 Volts and higher and the data should be furnished by Voltages. We do not require a report by individual lines.

8. We would appreciate having the information as soon as possible.

ANDREW HADEN JR. Major 5306

TO : SIP - EDISON - SADE - SIMA - Montecarlo - Belgium - Falk-
AEM. TORINO - SIT - Poale - Cuneo -

(copy -

1. According Alcom Industry & Utilities Sub. Com. letter, dated 2-2-46 (Ref. 197/PAT) we send you the attached forms on generating plants, substations and transmission.

2. On the attached forms and set you will find some explanatory notes.

3. An attempt has been made to make these forms as brief as possible so as not to require you to prepare a large amount of detail.

4. With respect to generating plants, only those plants which were damaged need be reported on. The damaged plants in North Italy were not very many in number and the companies should have no difficulty in completing the form.

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7. With respect to transmission lines the information is to cover those of 30,000 Volts and higher and the data should be furnished by Voltages. We do not require a report by individual lines.

8. We would appreciate having the information as soon as possible.

ANDREW HUBAN JR. Major 5386
 Deputy Chief
 Industry & Utilities S.C.
 Milan Office

Tel: 489081
Ext: 317

LWL/cc

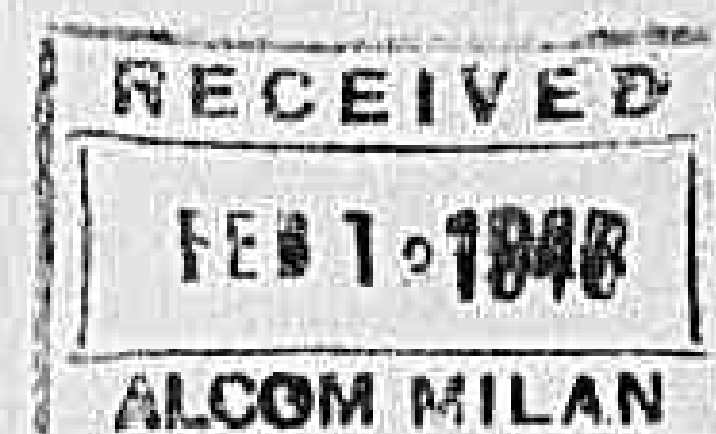
HEADQUARTERS ALLIED COMMISSION
APO 394
Industry and Utilities Sub-Commission

197/PWU

8 February 1946

SUBJECT: Statistics - Electric System

TO : Allied Commission, Chief Liaison Office
Lombardia, Milan
(Attn: Major A. Habon)



1. In order that we may complete our report on the damage to and repair of electric power facilities, we would appreciate it if you would forward the attached forms on generating plants, sub-stations, and transmission lines to the various companies in North Italy.

2. We have indicated on the attached forms those companies to whom they should be sent.

3. We have tried to make these as brief as possible so as not to require the companies to prepare a large amount of detail.

4. A set of explanatory notes is furnished for each company.

5. With respect to generating plants, only those plants which were damaged need be reported on. The damaged plants in North Italy were not very many in number and the companies should have no difficulty in completing the form.

6. In order that we will have the correct figure, we would like to have the total installed capacity in hydro and thermo which each company had at the time of liberation. We would like to have this figure in order to check it against the data which we have obtained from other sources, but which we are not sure of being absolutely correct.

7. With respect to substations, we are asking for detail on only those substations of 30,000 KVA or larger in capacity. Substations of less than 30,000 KVA installed capacity can be lumped together in one figure. Distribution cabins are not to be reported on.

5365

8. With respect to transmission lines the information is to cover those lines of 30,000 volts and higher and the data should be furnished by voltages. We do not require a report by individual lines.

9. We would appreciate having the information as soon as possible.

for *W. H. Laughlin*
 GEORGE F. PARKER,
 Colonel, Infantry
 Chief, Electrical Division

Enclosures

Explanatory notes
 Power Plant report forms
 Substation report forms
 Transmission report forms
 for the following companies

S.I.P. - Torino ✓
 Edison ✓
 S.A.D.E. ✓
 S.I.M.A. ✓
 Montecatini ✓
 A.E.M. Milano
 A.E.M. Torino
 S.I.T.
 Ponale
 Cismon
 Bolzano
 Falck ✓
 Cogno

5364

FORM TSC/3

ALLIED COMMISSION - TRANSPORTATION SUB COMMISSION

COMMISSIONE ALLEATA - SOTTOCOMMISSIONE PER I TRASPORTI

A. P. O. 394

(See reverse for instructions)
(Guardare dietro per le istruzioni)

BID - REQUEST FOR RAIL TRANSPORTATION - BID
RICHIESTE DI TRASPORTO PER FERROVIE

Originated by: CRACEY PUBLIC WORKS UTILITIES S/C. MILAN OFFICE Date: 24 AUG. 1945
Emessa da: CRACEY PUBLIC WORKS UTILITIES S/C. MILAN OFFICE
Originators Serial No. of Bid: 3
Numero progressivo della richiesta
This request is for inclusion among Bids for seven day period (indicate period or stipulate "Emergency Request") Monday Sept. 3
To Sunday Sept. 10 (Date - Date)

La presente richiesta deve essere inclusa tra quelle da prendere in considerazione per il periodo di sette giorni da Lunedì a Domenica (indicare il periodo desiderato oppure mettere: richiesta urgente).

Description of commodity: and how packed: Stretches of steel towards
Descrizione della merce e dell'imballaggio:

Consignor: S.A.P. 12000
Mittente: S.A.P. 12000
AC (or AMG) officer to contact: Major J.S. Miller - Chief Milan Office P.W.U. 5/3.
Ufficiale della AC (o dell'AMG) da interpellare:
Has transportation to loading station and loading labour been arranged?
Indicare se i mezzi di trasporto alla stazione di partenza e la manovalanza per il carico sui vagoni sono stati predisposti.

LOADING STATION (precise Rly. Station must be specified) (inc. Province) STAZIONE DI CARICO (precisare esattamente la stazione ferroviaria indicandone la provincia)		Date loading can begin. Data alla quale si può iniziare il carico	Amount that can be loaded per day. Quantitativo che può essere caricato giornalmente	Total Tonnage Tonnellaggio totale	No. of Wagon Loads Numero di vagoni completi
L200 (Como Prov.)		Sept. 3	1/2	27	1103 2000 type

Only one consignment to be shown on each Bid (Form TSC/3).
Ogni modulo serve per una sola destinazione.

Consignee: Division Rodolfi - C.A.N.I.D. - Province: Reggio Emilia
Destinatario: Division Rodolfi - C.A.N.I.D. - Provincia: Reggio Emilia

Off-loading station: RUDOLFI - Station of scario: RUDOLFI
AC (or AMG) officer to contact: Major J.S. Miller - Chief Milan Office P.W.U. 5/3.
Ufficiale dell'AC (o dell'AMG) da interpellare: Major J.S. Miller - Chief Milan Office P.W.U. 5/3.
Has it been ascertained that consignees can unload at expected rate of arrival? Yes
E' stato accertato che il destinatario può scaricare alle eventuali rate di arrivo? Yes

Full reason why transportation is required: Transportation line C.A.N.I.D.

To Sunday 30.10.1945 (Date)

La presente richiesta deve essere inclusa tra quelle da prendere in considerazione per il periodo di sette giorni (indicare il periodo desiderato oppure mettere: richiesta urgente).

Description of commodity and how packed: Stretchers of steel towardsDescription della merce e dell'imballaggio: Stendi letto d'acciaio verso

Consignor

Mittente

AC (or AMG) officer to contact

Ufficiale della AC (o dell'AMG) da interpellare

Has transportation to loading station and loading labour been arranged?

Indicare se i mezzi di trasporto alla stazione di partenza e la manovalanza per il carico sui vagoni sono stati predisposti.

LOADING STATION

(precise Rly. Station must be specified) (inc. Province)

STAZIONE DI CARICO

(precisare esattamente la stazione ferroviaria

indicandone la provincia)

Date loading can begin. Data alla quale si può iniziare il carico

Amount that can be loaded per day. Quantitativo che può essere caricato giornalmente

Total Tonnage totale

No. of Wagon Loads Numero di vagoni completi

LEMO (COMO PROV.)

Sept. 3

1/2

27

n°3

20.2.

tygo

Only one consignment to be shown on each Bid (Form TSC/3).

Ogni modulo serve per una sola destinazione.

Consignee Pietro Rodolfi - C.C.N.I. D.

Destinatario

Off-loading station RUBENNA

Stazione di scarico

AC (or AMG) officer to contact Interprete NORMAN - BOLOGNA - D.M.A.D.

Ufficiale dell'AC (o dell'AMG) da interpellare

Has it been ascertained that consignees can unload at expected rate of arrival? Yes

E' stato accertato che il destinatario può scaricare alle eventuali rate di arrivo?

Full reason why transportation is required trasporto di trasporto alla stazione di arrivo

Ragioni complete per le quali si fa richiesta di trasporto

LIMITATION. - RAIL TRANSPORTATION MUST BE LIMITED TO ALLIED MILITARY TRAFFIC PLUS ONLY SUCH

MINIMUM CIVIL TRAFFIC AS IS NECESSARY TO LIFE OF COMMUNITY AND ESSENTIAL WAR INDUSTRY. BEFORE

REQUESTING RAIL TRANSPORTATION AC OFFICERS AND CONSIGNORS MUST CONCLUSIVELY DETERMINE THAT PROPOSED

MOVEMENT IS NECESSARY IN ACCORDANCE WITH FOREGOING.

LIMITAZIONE: Il trasporto per ferrovie deve essere limitato al traffico militare alleato più quel minimo di traffico civile che è neces-

sario per la vita delle comunità e per le industrie belliche essenziali. Prima di richiedere il trasporto per ferrovie, gli ufficiali dell'AC e

i mittenti devono stabilire in modo conclusivo che il movimento richiesto è necessario, tenendo presente quanto precede.

IMPORTANT

Read all instructions for preparation of this form on reverse hereof; check to insure all required information being properly shown/

then complete following certification.

Leggere attentamente sul retro le istruzioni per la compilazione del presente modulo, controllare che tutte le informazioni richieste/

sono state debitamente fornite e poi riempire la seguente dichiarazione.

CERTIFICATION

I certify that I have read above Bid, checked all details shown; that Bid meets provision of "LIMITATION" above and I hereby

approve same.

DICHIARAZIONE

Il sottoscritto dichiara di aver letto le presenti richieste e controllate tutte le notizie ed i particolari di esse; dichiara che la presente

richiesta rientra nei limiti di cui alla nota soprastante e pertanto approva la richiesta stessa.

Name (Name)

Rank (Rank)

Grade (Grado)

Address (Mail address)

Indirizzo postale

Signal and/or Telephone address

1264 (Signal and/or Telephone address)

PTO

10M/145

INSTRUCTIONS FOR PREPARATION OF BID - FORM TSC/3

1. Bidding system is designed to provide positive control of transportation by rail of civil freight traffic (both AC and Ordinary Italian). Careful reading of and compliance with their instructions and accurate preparation of Form TSC/3 will materially help all concerned to obtain the best possible transportation.

2. Types of Civilian Freight Traffic. Civilian (i.e., all non military) traffic falls into two broad categories.

- (a) AC Traffic. Comprises commodities which AC considers essential to meet vital needs, and over which AC exercises a large measure of control, such as wheat, flour, sugar, olive oil and other basic foodstuffs or supplies. Salt, fuel, fertilizer, seeds, and essential products sponsored by Italian Government under AC auspices are included in this category.
- (b) Ordinary Italian Civilian Freight Traffic. Comprises all freight movements required by civilians, not coming under sub-para (a) above. Such movements must be limited to capacity available after requirements of sub-para (a) above, have been fully met.

3. Emergency Traffic of Extreme Urgency. Regular working of bidding system is essential. However, it is appreciated that emergencies may arise requiring special movement arrangements. In such cases, form TSC/3 will be prepared, clearly marked "Emergency Request", and details of emergency clearly specified. Officers and consignors preparing form TSC/3 are responsible for determining that there is actual urgency.

4. AC Official Wagon Labels. Attention is directed to the fact that wagons must bear official AC WAGON LABELS, completed in ink. Two numbered labels will be provided, upon acceptance of bid, for each authorized wagon. Labels will be supplied by AC. The Representative to Regional and Provincial Supply Officers, who will endorse them with details of commodity, serial number of bid, date during which movement is authorized, stamp and sign them before issuing to consignor. The number of the railway wagon will be inserted in ink by stationmaster at time of loading. On any cancellation of movement AC official wagon labels must be returned to issuing authority.

5. WARNING. Italian railways have been seriously affected by ravages of war. There are critical shortages of coal supplies and wagons, and military necessities must always receive preference. Bids beyond reason or necessity must not be made and quantities must be limited to actual requirements, and must not exceed the quantity that can be loaded within any one seven day period. Mass bids for large quantities to move at problematical date, or for which all details have not been fully determined, will NOT be submitted on form TSC/3. Letter giving details of such proposed or problematical shipments should be submitted to HQ. AC Transportation Sub-Commission in advance, through usual channels giving all known details.

ISTRUZIONI PER LA PREPARAZIONE DELLE DOMANDE - MODULO T.S.C./3

1. Il sistema «a mezzo richieste» venne designato per provvedere al controllo effettivo dei Trasporti per ferrovia del traffico di merci appartenenti a civili (ambo A.C. ed Italiani). Accurata lettura e somministrazione a queste istruzioni, nonché attenta compilazione del Modulo T.S.C./3 sarà di aiuto materiale a tutti gli interessati per ottenere possibilmente migliore mezzo di trasporto.

2. Tipi di traffico di merci per civili (cioè tutti i non appartenenti a forze armate). Questo traffico viene suddiviso in due grandi categorie:

- (a) Traffico AC, comprende quei generi che l'AC considera essenziali alle necessità civili, e sovra i quali l'AC esercita ampie misure di controllo, come: Frumenti, Farine, Zucchero, Olio di oliva e tutti quei prodotti o provviste basilari per l'alimentazione. Sale, combustibili, fertilizzanti, semi e prodotti essenziali contingenti dal Governo Italiano sotto il controllo dell'AC, devono considerarsi nella medesima categoria.

- (b) "Traffico ordinario di merci per civili Italiani. Comprende tutto il movimento di merci richiesto da civili non entranti nel sopradescritto II par. (a). Questo movimento deve essere limitato alla capacità utile dopo che le esigenze di cui al sottoparagrafo (a) sono state pienamente osservate.

3. Traffico di emergenza dovuto ad estrema urgenza. Il regolare lavoro del «sistema Richieste» è essenziale. Nonostante è ammesso che possano accadere casi emergenti per i quali sono necessari provvedimenti speciali di movimento. In tali casi: il Modulo T.S.C./3 verrà compilato con chiaramente indicato «Richiesta di Emergenza» specificandovi dettagliatamente i motivi di emergenza. Gli ufficiali ed i militari che compilano le richieste di emergenza restano responsabili per la motivazione (di attuale urgenza).

4. Etichette ufficiali AC per vagoni. Si richiama l'attenzione al fatto che i vagoni debbono portare le etichette AC completate in inchiestro. Ad avvenuta accettazione delle diverse richieste, l'AC rilascerà due etichette da applicarsi ad ogni vagone autorizzato. Dette etichette si otterranno dagli ufficiali regionali e provinciali rappresentanti l'AC (Commissione Trasporti) i quali cureranno di inserire i dettagli riguardanti le merci, il numero di serie delle richieste, le date del periodo riguardante l'autorizzazione del movimento, il timbro e la firma prima di consegnarli all'interessato. Il numero del vagone verrà inserito in inchiestro dal Capostazione al momento del carico.

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2. Tipi di traffico di merci per civili (cioè tutti i non appartenenti a forze armate). Questo traffico viene suddiviso in due grandi categorie:

(a) Traffico AC, comprende quei generi che l'AC considera essenziali alle necessità civili, e sovra i quali l'AC esercita ampie misure di controllo, come: Frumenti, Farine, Zucchero, Olio di oliva e tutti quei prodotti o provviste basilari per l'alimentazione. Sali, combustibili, fertilizzanti, semi e prodotti essenziali contingentati dal Governo Italiano sotto il controllo dell'AC, devono considerarsi nella medesima categoria.

(b) "Traffico ordinario di merci per civili italiani. Comprende tutto il movimento di merci richiesto da civili non entranti nel sopraddetto II par. (a). Questo movimento deve essere limitato alla capacità utile dopo che le esigenze di cui al sottoparagrafo (a) sono state pienamente osservate.

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5. ATTENZIONE. Le ferrovie di Stato Italiano sono state seriamente colpite dalla strage di guerra; vi è critica penuria di carbone materiali e vagoni, e di più le esigenze militari debbono avere sempre la preferenza.

Richieste al di là della possibile necessità, non devono essere attuate, le quantità limitate e non eccedere quelle stabilite per il carico periodico di sette giorni.

Cumul di richieste per grossi quantitativi, movimenti a date problematiche, oppure quando i dettagli delle medesime richieste non siano stati determinati con precisione non dovranno essere presentate con Modulo T.S.C./3. La corrispondenza riguardante dettagli di proposte o problematiche spedizioni dovrà essere sottomessa preventivamente all'HQ. AC., Sottocommissione dei Trasporti, per vie usuali, dando tutte le spiegazioni necessarie conosciute.

P. T. O.

Tel: 478906

P.W.U. *chw*

RECEIVED

HEADQUARTERS ALLIED COMMISSION

VER/bb

APO 994

Public Works and Utilities Sub-Commission

7 AUG 1945

RE AG (COMMUNICA) REG.
300/PWU

5 Aug 45.

Subject: Order for Conductor
Cisterna Transmission Line.To : SOCIETA' ROMANA DI ELETTRICITA'
Via Poli, 14 - Rome.

1. Acknowledgement is made of your letter dated 2 August 1945, File 506/261, Subject: Alimentazione Comune di Cisterna which transmitted Ordine No. 819 dated 2 August 1945.

2. The order dealing with Almoec Conductor for the transmission line to Cisterna, has been given by telephone to our Milan office, and will be referred to the Spett/Tridilerie e laminatoi di Metalli, Milan.

3. It is understood that you will send a revision of the order to this Sub-Commission omitting the statement that AMG will accept the material and will provide for transportation. It is further understood that you will designate the Societa "La Centrale", Via S. Damiano at Milan as the agency to receive the finished conductor, and that our Milan Office will endeavour to assist in obtaining transportation for the material to Rome.

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

cc: Milan Office, Electrical Division,
Att: Maj. Clarence Wilcox.

5362

Tel: 489081
Ext: 317

Ext., 317

HEADQUARTERS ALLTEL COMMISSION

COPI No.

90/06

4FO 394

Public Works and Utilities Sub-Commission

13 JUL 1945

FREEFENCE! 158/FNU

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. A. LAFAY,
Lieut-Colonel,
Chief Elec. Div.

DISTRIBUTION

Copy No.:

- 1 - C.E., AFHQ.
- 2 - Dir. Eng. Prod. & Stores, AFHQ.
- 3 - Dir. Eng. Prod. & Stores, AFHQ ALV c/o RAC.
- 4 - D.A. - AFHQ.
- 5/8 - O.I.T., G-2 AFHQ (Att: Maj. Corvin.)
- 9 - C.E. - District 1
- 10 - C.E. - District 2
- 11 - C.E. - District 3
- 12 - C.E. - 15th Army Group.
- 13 - Eng. Base.
- 14 - Flag Officer - M.N. Western Italy.
- 15 - L.A.H.S. (Italy) Tran. Incr. C.M.
- 16 - C.F.E. - RAC.
- 17/18 - A.C. - Economic Section.
- 19 - A.C. - Economic Section (Att: Col. L.A. Jenny.)
- 20 - A.C. - Agriculture S/C.
- 21 - A.C. - Commerce S/C.
- 22 - A.C. - Finance S/C.
- 23 - A.C. - Food S/C.
- 24 - A.C. - Industry S/C.

1. Transmitted herewith is a copy of a report of the Public Works 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,

Lt. Col. L. L. L. L.
Lieut-Colonel,
Chief Elec. Div.

DISTRIBUTION

Copy No.

- 1 - C.E., AFHQ.
- 2 - Dir. Eng. Prod. & Stores, AFHQ.
- 3 - Dir. Eng. Prod. & Stores, AFHQ ALV c/o F.M.C.
- 4 - D.M., AFHQ.
- 5/8 - O.I.T., C-2 AFHQ (Att: Maj. Corvin.)
- 9 - C.E. - District 1
- 10 - C.E. - District 2
- 11 - C.E. - District 3
- 12 - C.E. - 15th Army Group.
- 13 - Eng. Penbase.
- 14 - Flag Officer - h.M. Western Italy.
- 15 - L.M.H.S. (Italy) Tran. Incr. Cal.
- 16 - C.F.E. - F.M.C.
- 17/18 - A.C. - Economic Section. (Att: Col. L.A., Jenny.)
- 19 - A.C. - Economic Section
- 20 - A.C. - Agriculture S/C.
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- 27 - A.C. - Shipping S/C.
- 28 - A.C. - Transportation S/C.
- 29 - A.C. - Mines Division - Industry S/C.
- 30 - A.C. - Priority & Movements Section.
- 31 - A.C. - Requisition Section.
- 32 - A.C. - Supply & Resources Section.
- 33/34 - A.D.F.S., F.M.C., - C.F.
- 35 - Commissioner Naples Commune.
- 36 - Regional Commissioner Emilia Region.
- 37 - (Att: Reg. Engineer) Liguria Region.
- 38 - Piemonte Region.
- 39 - Lombardia Region.
- 40 - Venezia Region.
- 41 - File.

5361

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HEADQUARTERS ALLIED COMMISSION
APO 394

Public Works and Utilities Sub-Commission

WLL/bb

Electrical Division

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

Month of May 1945

I N D E X

<u>Page No. 1</u>	- General Information
<u>Page No. 2</u>	- Summary of progress during May.
<u>Page No. 3</u>	- Six months estimate of restoration of generating facilities.
<u>Pages No. 4 - 7</u>	- Details of progress of repairs to generating plants and associated equipment.
<u>Pages No. 8 - 12</u>	- Details of progress of repairs to transmission system.
<u>Pages No. 13 - 14</u>	- 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 plants is not constant.

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EXPLANATION

- 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.)
- 4) - Only generating plants of 1.0 Mw and over are included in 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.

S. W. Macpherson
 W. M. Litch, M. W. P.
 Lieut-Colonel,
 Chief Elec. Div.

PUBLIC WORKS AND UTILITIES SUB-COMMISSION

Electrical Division

GENERAL INFORMATION

Position at 31 May 1945

No.		South Italy	Central Italy	North Italy
1	Nameplate capacity of generating plant resto- red to service during May 1945 MW	0.0	15.0	
2	Output capacity expe- cted from above plant during May 1945 MW	0.0	0.0	
3	Maximum load carried to date MW	182.9	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 to service			

	generating plants red to service during May 1945	15,0	0,0		
2	Output capacity ex- posed from above plant during May 1945	0,0	0,0		
3	Maximum load carried to date	121,2	182,9		
4	Present average weekly units being generated $\text{km} \times 10^6$	19,31	19,0		
5	System load factor	79 %	68 %		
6	Percentage of units generated by hydro plants	91 %	96 %		
7	Length of transmission line restored in service during May 1945 (30 KV and above)	330	---		
8	Approximate number of civilian labour directly engaged on Electrical Rehabilitation work	Data not yet available	Data not yet available		5359

* Central Italy including only
Master Load Dispatcher controlled
Grid.

FUELED 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	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 Load Dispatcher.	197,45	224,68	

TRANSMISSION SYSTEM

No.	(30 KV and above)	Km.	Km.	Km.
-----	-------------------	-----	-----	-----

1	Nameplate capacity of Generating Stations 31st December 1941	473.1	879.7	4,663.3
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 <u>31 May 1945</u>	277.0	279.5	
5	Actual output available at <u>May 1945</u> Central Italy including stations not controlled by Master Load Dispatcher.	197.45	224.68	

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 5358
2	Length of transmission line available at time of occupation	1,393	829	---
3	Length of transmission line in operation at <u>30 May 1945</u>	3,409	4614.5	---

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
		MW	MW	MW	MW	MW	MW
CERIANO N. 2	S.H.E.	5.5	3.8				
ICNTECUPA	"	3.4					
PONTEFIDUE	"	5.0					
CASTELLALAMA	A.C.E.A.			3.0			
LANDELLA	"				8.0		
SALISANO	"		8.0				
CEPOSA	U.N.E.S.		5.0				
VENABATELLO	"		34.4				
GALLIETO N. 4	TERNI					34.4	
GALLIETO N. 2	"						
AVENIMINO	S.H.E.	4.2					
IERE	"	5.2					
CASTELNUOVO	VALDARNO						
CAFFAGNANA	"			1.42			
SESTIONE	"			4.4			
SPIERANO	"		1.5				
TOTAL N. 2							5357

	km	km	km	km	km	km
CEFLANO N. 2	5.5					
FONTICUEA		3.8				
PONTEFIDUE	3.4					
CASTELLARMA	5.0					
LANDELA			3.0			
SALISANO				8.0		
GEFOSA		8.0				
VENNARTELLO		5.0				
GALLETO N.4		34.4				
GALLETO N.2				34.4		
AVENTINO	4.2					
LEFE	5.2					
CASTELNUOVO		2.4				
CAFFAGLIANA						
SESTIONE		1.42				
SFERANO		4.4				
LILA N. 2	1.5					
FESCAFA III						
N. 1						
Monthly Increase	24.8	37.42	3.0	42.4	10	

5357
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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	a) Progress c) Material
ACQUOLA No.2	S.R.E.	4.0		
PIAN DELLA FOCCA No.2	VALDARNO	11.0		
CEPRANO No.2	S.R.E.	5.5	10 June '45	a) Up to b) Coils c) None.
AVENTINO No.1	S.M.E.	4.2	30 June '45	a) Complete b) None. c) None.
LIMB No.2	VALDARNO	1.5	15 June '45	a) Slow. b) Delay c) None.
CASTEL MADAMA	A.C.E.A.	5.0	June '45	a) Up to b) None. c) None.
FONTE FIUME	S.R.E.	3.4	June '45	a) Up to b) None. c) None.
GALLETO No.4	5356 TERNI	34.4	July '45	a) Slow. b) Delay c) Sider. Insul.

S OF PROGRESS 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 b) Coils late from Mater Co. c) None.
S.L.E.	4.2	30 June '45	a) Completed 90% b) None. c) None.
VALDARNO	1.5	15 June '45	a) Slow. b) Delay of transport. c) None.
A.C.E.A.	5.0	June '45	a) Up to revised schedule. b) None. c) None.
S.R.E.	3.4	June '45	a) Up to schedule. b) None. c) None.
TERNI	34.4	July '45	a) Slow. b) Delay in delivering from Stablim. Sider. of Terni and Brown-Boveri Co. c) Insulating materials.

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 M.	Expected date of Completion	a) Progress x) Materials
VEN. MARTELLO	U.N.E.S.	3.0	July '45	a) Up to sc b) None. c) None.
GEIOSA No.1	U.N.E.S.	8.0	July '45	a) Up to re b) Lack. of c) None.
FONTECUOLA	S.A.E.	3.8	July '45	a) Up to sc b) None c) Cement.
SPIRANO No.1	VALDARNO	4.4	July '45	a) Roofing b) None c) None.
CASTELNUOVO GALLI No.2	VALDARNO	2.4	July '45	a) Up to son b) None c) None.
SFISATONE (FORNINO) No.1	VALDARNO	1.42	July '45	a) Up to son b) None. c) None.
MANDELA	A.C.E.A.	3.0	August '45	a) Up to son b) None. c) None.
GALLI No.2	5355 TERNI	34.4	September '45	a) Slow. b) Delay in of Terni c) hubter pa

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 -
			x) Materials required.	
U.N.E.S.	3.0	July '45	a) Up to schedule	b) None.
			b) None.	c) None.
U.N.E.S.	8.0	July '45	a) Up to revised schedule	b) Lack. of cast iron. in foundry.
			b) None.	c) None.
S.N.E.	3.8	July '45	a) Up to schedule	b) None
			b) None	c) Cement.
VALLAINO	4.4	July '45	a) roofing terrace construction continues.	b) None
			b) None	c) None.
VALLAINO	2.4	July '45	a) Up to schedule	b) None
			b) None	c) None.
VALLAINO	1.42	July '45	a) Up to schedule	b) None.
			b) None.	c) None.
A.C.E.m.	3.0	August '45	a) Up to schedule.	b) None.
			b) None.	c) None.
5355 TEINI	34.4	September '45	a) Slow.	b) Delay in delivering from Stab. Sider.
			b) Delay in delivering from Stab. Sider.	c) Hubber packing materials.

DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED BY

Name of Station and Number of Unit	Company	Name plate size of unit under repair MW	Expected date of Completion	a) Progress b) None c) Late
SALISANO	A.C.E.A.	8.0	September '45	a) Up to b) None c) None
PESCARA III No.1	S.A.E.	10.0	October '45	a) Repair b) Short c) Carb
ACQUOLA No.3	S.A.E.	14.0	December '45	a) Up to b) None c) Insul
PARPA No.2	S.A.E.	6.0	December '45	a) Up to b) None c) Insul
MONTE	S.A.E.	6.0	December '45	a) Up to b) None c) Insul
PESCARA III No.2	S.A.E.	10.0	December '45	a) Repair b) None c) None
VENARATELLO	U.N.E.S.	8.0	December '45	a) Up to b) Prev c) Insul
COTILLA No.2	TELE	24.0	January '46	a) Slow b) Delay c) Insul

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

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

DETAILS OF HOURS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED

Name of Station and Number of unit	Company	Name plate size of unit under repair kW	Expected date of Completion	a) b) c)
PESCARA IV	S.M.E.	8.2	January '46	a) b) c)
ANVERSA	FF.SS.	10.0	January '46	a) b) c)
LIVORNO	VALDARNO	11.0	Not yet accurately determined.	a) b) c)
BUSSI SUL TIRINO II	SOC. IZ. CHIMICA	1.0	Not yet accurately determined.	a) b) c)
PESCARA II No.1	S.M.E.	6.0	Not yet accurately determined.	a) b) c)
PESCARA II No.2	S.M.E.	6.0	Not yet accurately determined.	a) b) c)
LETE	S.M.E.	5.2	June '45	a) b) c)

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DETAILS OF PROCESS 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.L.E.	8.2	January '46	a) Up to revised schedule. b) Transportation of damaged parts. c) None.
FF.SS.	10.0	January '46	a) Slow. b) Shortage of transport. c) None.
VALDEPINO	11.0	Not yet accurately determined.	a) Up to revised schedule. b) Lack of cement. c) Cement.
SOC. INZ. CALICA	1.0	Not yet accurately determined.	a) Dismantling alternator and rebuilding power house. b) No priority for new castings. c) ---
S.M.E.	6.0	Not yet accurately determined.	a) Dismantling of plant begun. b) Building completely demolished. c) ---
S.M.E.	6.0	Not yet accurately determined.	a) Dismantling of plant begun. b) Building completely demolished. c) ---
S.M.E.	5.2	June '45	a) Completed 90%. b) None. c) None.

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DETAILS OF PROGRESS OF RELATES TO TRANSMISSION ST

Name of Line	Company	Voltage of Line kV	Expected date of Completion	
PESCIA - FONTEDERA	VALDAFNO	30		
LI FOLI - S. CROCE FONTEDERA.	VALDAFNO	30		
LIVORNO - FONTEDERA	VALDAFNO	30	Unknown	a) b) c)
F. DELLA ROCCA - CORFINO	VALDAFNO	60	June '45	a) b) c)
TAVERNIZZE GALICANO	VALDAFNO	120		
FOLIGNO - CHIUSI	TERNI	120	July '45	a) b) c)
COTILLA - PESCARA III	TERNI	150	November '45	a) b) c)
C/LI VERLE - C/LI AVENTINO	U.N.E.S.	30	June '45	a) b) c)

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DETAILS OF PROGRESS OF RELIABLE TO TRANSMISSION SYSTEM

Company	Voltage of Line kV	Expected date of Completion	REMARKS
			a) Progress - b) Cause of delay - c) Materials required.
VALDAINO	30		Completed.
VALLINO	30		Completed.
VALLINO	30	Unknown	a) Livorno-Altopascio circuit completed. b) None. c) None.
VALDAINO	60	June '45	a) Up to revised schedule. b) Mines to be cleared. c) None.
VALDAINO	120		Completed
TERNI	120	July '45	a) 10 towers replaced. b) Transport shortage. c) 3 tons truck.
TERNI	150	November '45	a) 28 towers replaced. b) None. c) Angle-bars, oxigen, truck.
U.N.E.S.	30	June '45	a) Up to schedule. b) None. c) None.

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DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (C)

Name of Line	Voltage	Voltage of Line kV	Expected Date of Completion	a) b) c)
CINECITTA' - ALIANO	S.H.E.	60	1 July '45	a) b) c)
CANTEO - CINECITTA'	S.H.E.	150	October '45	a) b) c)
MORINO - CANTEO	S.H.E.	150	October '45	a) b) c)
CASIGLIANO - MARANO	S.H.E.	60	June '45	a) b) c)
LETE - AVEVINO	S.H.E.	88	September '45	a) b) c)
ALIANO - ARCHI	S.H.E.	150	September '45	a) b) c)
ARCHI-FRATTAMAGGIORE	S.H.E.	150	September '45	a) b) c)
FRENETTA - AVERSA	S.H.E.	60	November '45	a) b) c)

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

Voltage	Voltage of Line KV	Expected Date of Completion	REMARKS
			a) Progress - b) Cause of delay - c) Materials required.
S.L.E.	60	1 July '45	a) Up to schedule. b) Delay in copper delivering. c) None.
S.H.E.	150	October '45	a) Slow. b) Lack of cement. c) Cement and copper conductors.
S.H.E.	150	October '45	a) Slow. b) Lack of cement. c) Cement and copper conductors.
S.L.E.	60	June '45	a) Repaired 35%. b) Material & transport shortage; mines to be cleared. c) Angle-bars.
S.M.E.	88	September '45	a) One circuit repaired 60%. b) None. c) None.
S.M.E.	150	September '45	a) Repaired 25%. b) Materials and transport shortage. c) Angle-bars, carbide, oxygen.
S.M.E.	150	September '45	a) Repaired 46%. b) Shortage of materials and transport. c) Copper conductors and angle-bars.
S.F.SS.	60	November '45	a) Prenestina-Bagni di Tivoli completed. b) None. c) None.

DETAILS OF PROGRESS OF RELATING TO TRANSMISSION SYSTEM (Contd)

Name of Line	Company	Voltage of Line kV	Expected date of Completion	a) b) c)
FONTEMAGLIO - ASCOLI	U.N.E.S.	65	Unknown	a) Work b) None c) None
FEDASO - FONTE GIOCE ROSSA	U.N.E.S.	65	September '45	a) Slow b) Lack c) All
CASTEL MADAMA - TIVOLI	A.C.E.A.	60	Unknown	a) 2nd b) None c) None
TERNI - S. PAOLO - PRENESTINA	A.C.E.A.	60	June '45	a) S. Pa b) Lack c) Copp
COMUNACQUA - C. MADAMA	A.C.E.A.	75	Unknown	a) 2nd b) None c) None
CECCANO - FONTINA	S.H.E.	60		
TERNI - TOR DI QUINIO	S.H.E.	60		
TERNI - TIBURTINO	S.H.E.	60		

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DETAILS OF PROGRESS OF RELIANCE 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. b) None. c) None.
U.N.E.S.	65	September '45	a) Slow. b) Lack of materials. Shortage of transport. c) Aluminium conductors.
A.C.E.A.	60	Unknown	a) 2nd circuit works begun. b) None. c) None.
A.C.E.A.	60	June '45	a) S.Paolo-Franestina circuit completed. b) Lack of conductors. c) Copper conductors.
A.C.E.A.	75	Unknown	a) 2nd circuit towers replaced. b) None. c) None.
S.A.E.	60		Completed.
S.A.E.	60		Completed.
S.A.E.	60		Completed.

DETAILS OF PROGRESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

Name of Line	Company	Voltage of Line kv	Expected Date of Completion	a) Progress b) Material
RIFREDI - GRIZZANA	FF.SS.	120	July '45	a) Completed b) None. c) None.
FOLIGNO - FALCONARA (odd)	FF.SS.	120	Unknown	a) Up to b) None. c) None.
FOLIGNO - FALCONARA (even)	FF.SS.	120	November '45	a) Foligno b) Lack of c) Carbide
LARDERELLO - FONTICINO	FF.SS.	120	September '45	a) works b) None. c) None.
ORTE - CHIUSI	FF.SS.	120	August '45	a) Orte-Or b) Shorta c) None.
CHIUSI - CALUCCIA	FF.SS.	120	June '45	a) Comple b) None. c) None.
CALUCCIA - FONTICINO	FF.SS.	120		
FONTICINO - RIFREDI	FF.SS.	120	July '45	a) One cl b) None. c) None.

DETAILS OF PROGRESS OF RELATES TO TRANSMISSION SYSTEM (Continued)

Company	Voltage of Line KV	Expected Date of Completion	REMARKS.
			a) Progress - b) Cause of delay - c) Materials required.
FF.SS.	120	July '45	a) Completed 80%. b) None. c) None.
FF.SS.	120	Unknown	a) Up to schedule. b) None. c) None.
FF.SS.	120	NOVEMBER '45	a) Foligno-Genga completed. b) Lack of carbide, oxygen, angle-bars. c) Carbide, oxygen, angle-bars.
FF.SS.	120	September '45	a) Works just begun. b) None. c) None.
FF.SS.	120	August '45	a) Orte-Orvieto odd circuit completed. b) Shortage of transport. c) None.
FF.SS.	120	June '45	a) Completed 98%. b) None. c) None.
FF.SS.	120		Odd circuit completed.
FF.SS.	120	July '45	a) One circuit 50% completed. b) None. c) None.

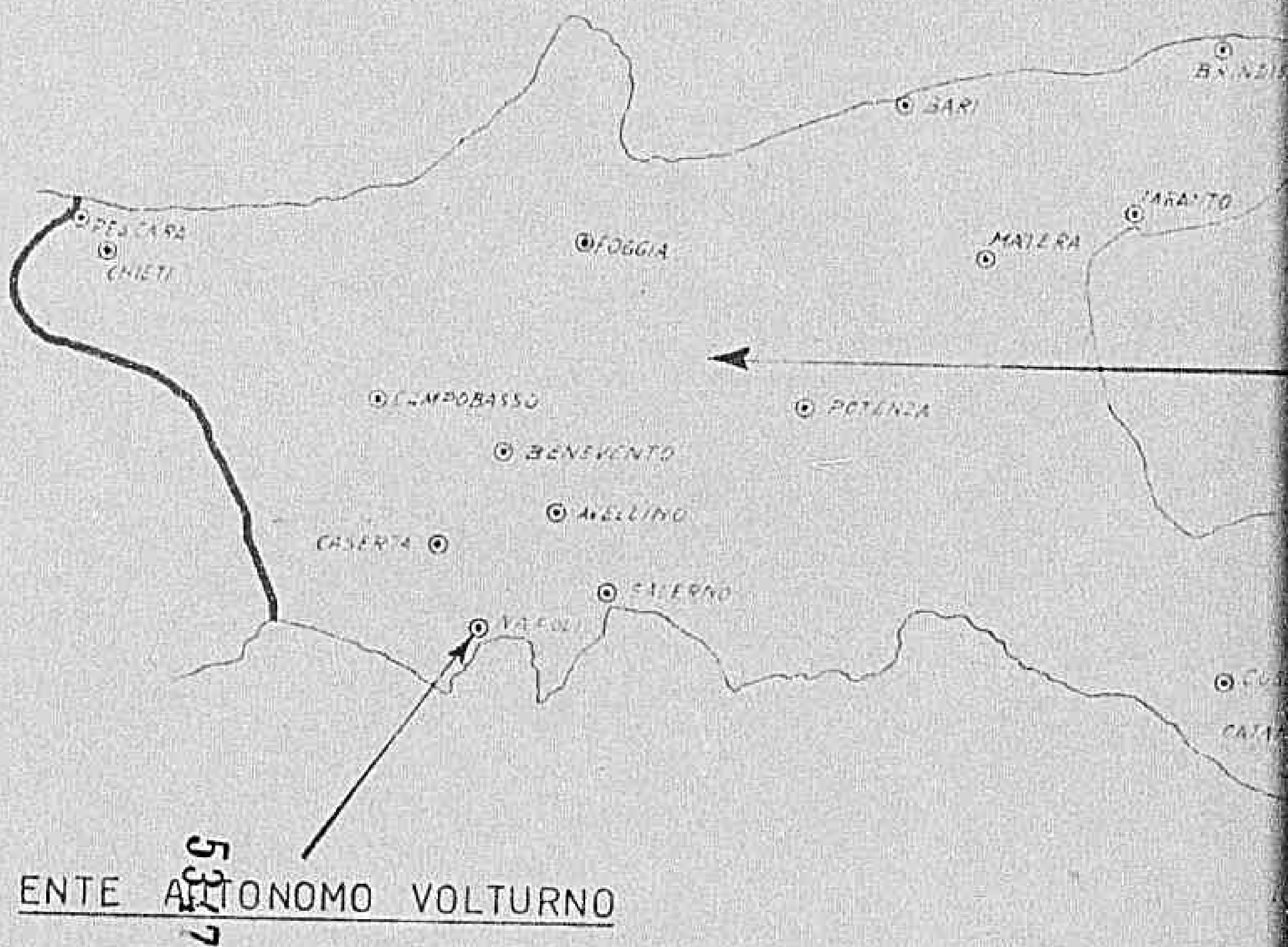
DETAILS OF PROGRESS OF REDD'S TRANSMISSION SYSTEM (Continued)

Company	Voltage of Line KV	Expected date of completion	REMARKS
			a) Progress - b) Cause of Delay - c) Materials required.
FF.SS.	120	September '45	a) One circuit works just begun. b) None. c) None.
FF.SS.	120	Unknown	Work to be contracted for.
FF.SS.	120	Unknown	work to be contracted for.

SOUTHERN ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

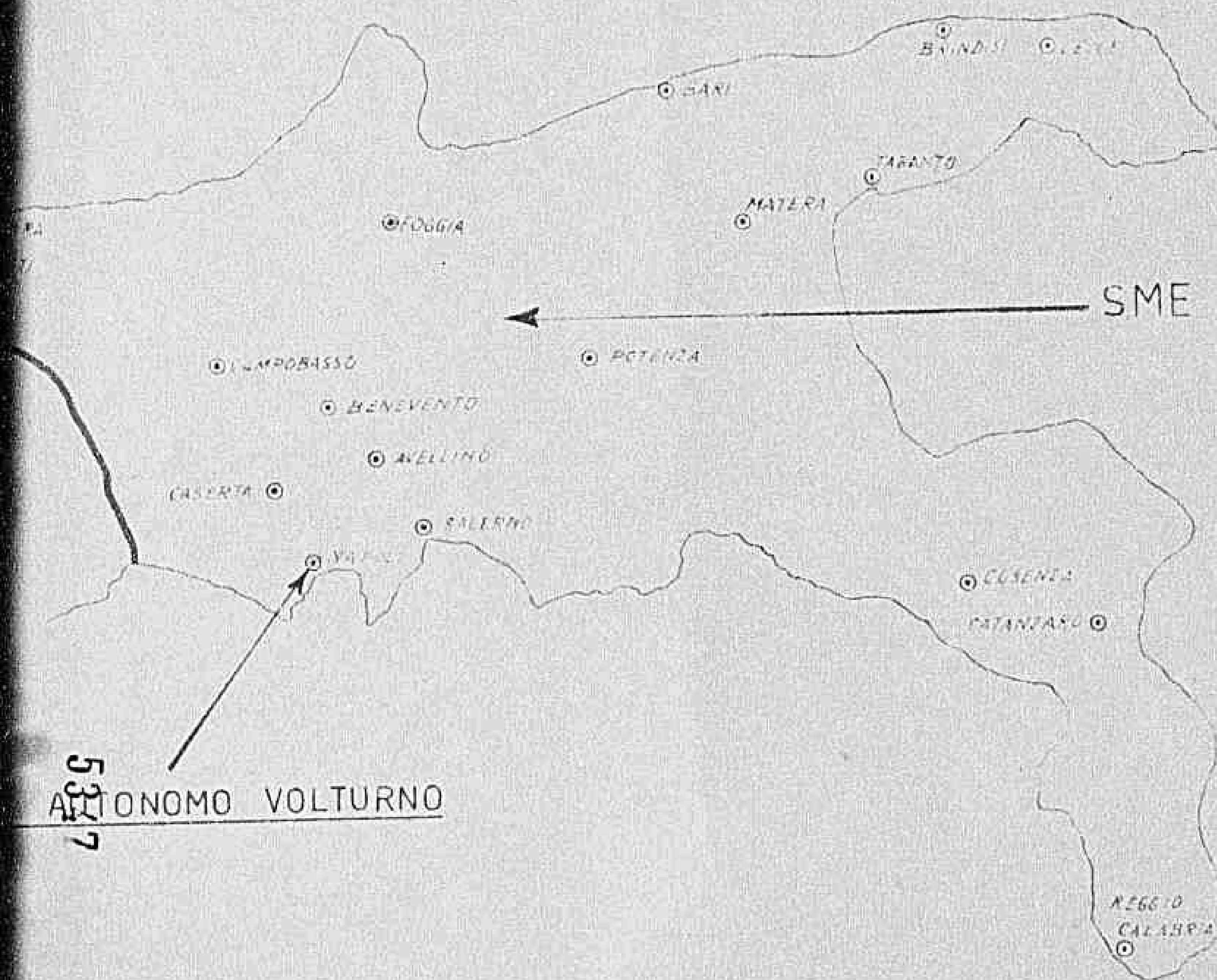
MAP OF SOUTHERN ITALY AREA



SOUTHERN ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

MAP OF SOUTHERN ITALY AREA

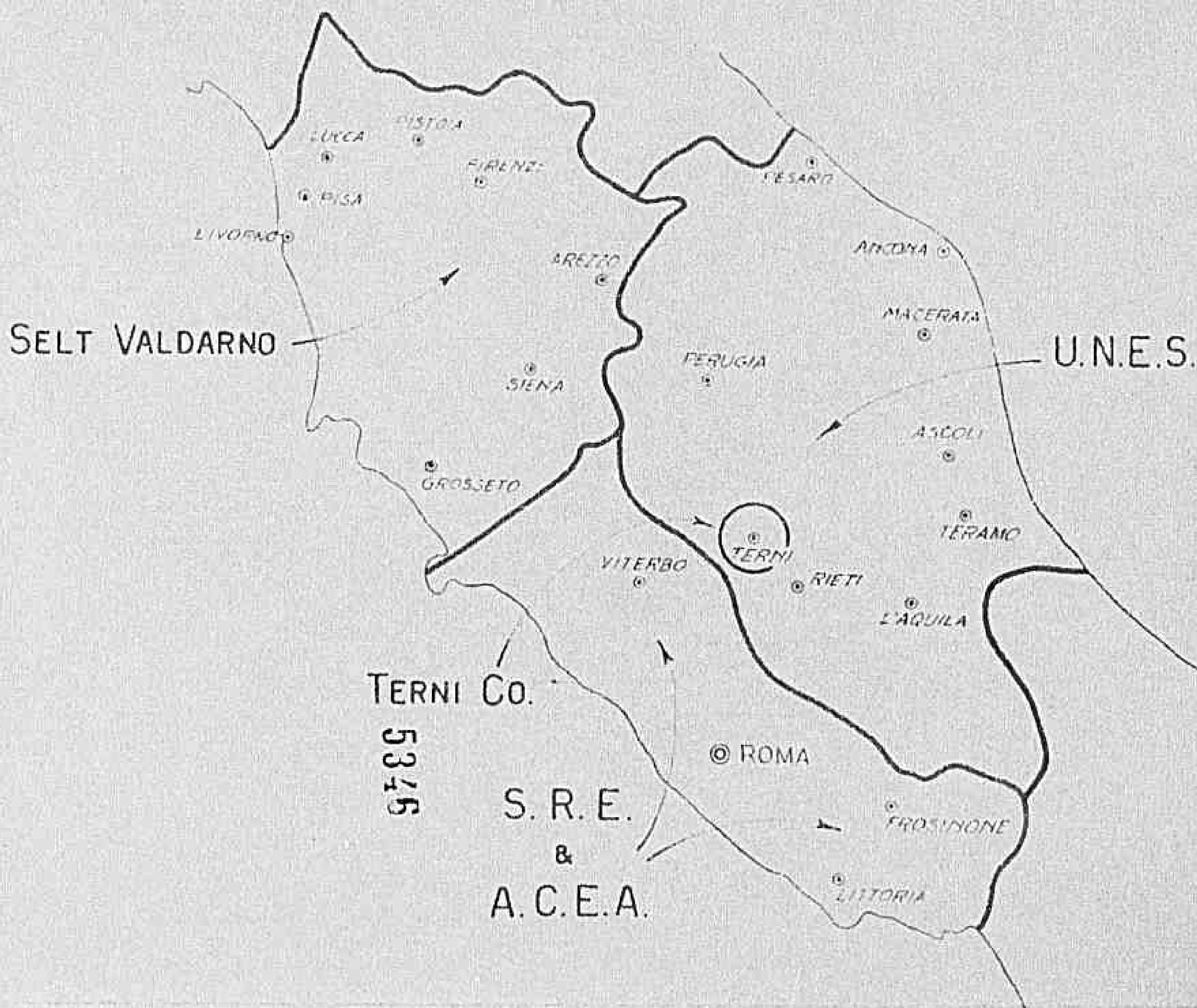


AC/OP/EL/10

CENTRAL ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

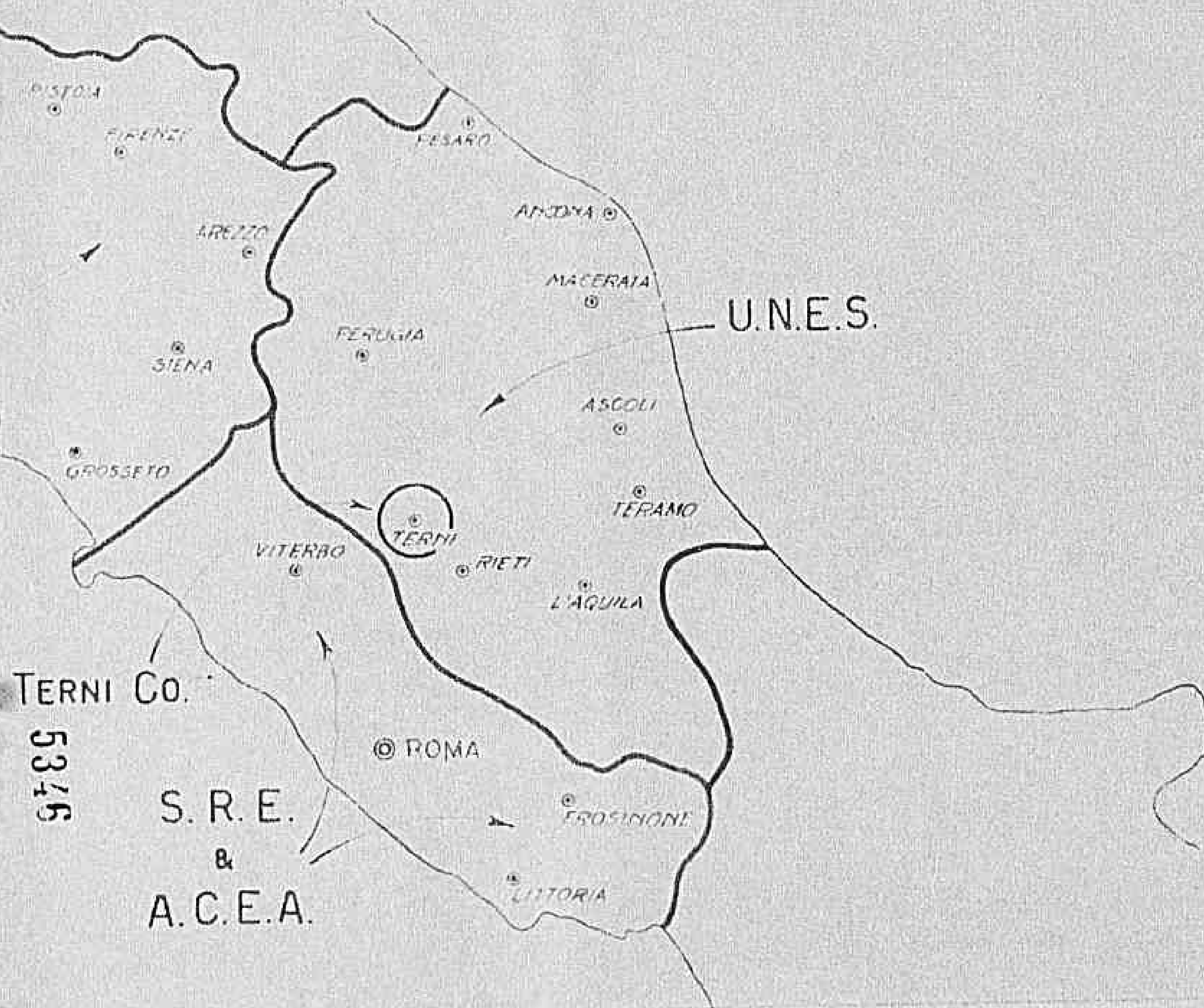
MAP OF CENTRAL ITALY AREA



CENTRAL ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

MAP OF CENTRAL ITALY AREA



AC/OP/EL/9

9 112 P.H.U.
Col. ~~th~~ Parker
RECEIVED
IV 7-5 JUL 1945
HQ AMG LOMBARDIA REG.
Room 47

Tel. 489081
Ext. 317

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

LWL/ac
f

Reference : 102/PWU

3 July 1945

Subject : Requirements "Coniel" Co.

To : A.C. MILAN OFFICE ELECTRICAL DIVISION
Public Works & Utilities S/C - A.P.O. 394
(Attention Lt.Col. Parker)

1. Eng. Silva of the above company has requested assistance in obtaining transport and aluminum for conductor in connection with the rehabilitation of their 220 KV transmission in northern and central Italy. He stated that a request had already been made but nothing had been received to date.
2. The transport needed is :
 - 2 - 4 ton trucks
 - 1 - passenger car.
3. (a) Aluminum in the form of pigs, 50 to 60 tons, in amount, is needed to manufacture conductors to replace that which has been removed or stolen from the line.
(b) The wire can be drawn by the Porto Marghere Plant near Venice.
(c) Eng. Silva had been informed that the Edison Co. at Milan had a sufficient quantity of steel core cable needed for manufacturing the conductor.
4. Please assist the Coniel Co. in any way you can to obtain the transport and conductor.

W.M. Lapper

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

*No action at present
in this office - check in Rome 11/1/45
S.D.P.*

L
5345

Tel. 12641
Ext. 2521

HGB/11.

MILAN OFFICE
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB.COM.
ALLIED COMMISSION
APO 394

112/15

11-7-45

Subject : Release of aluminium and zinc.
To : Comitato Non Ferreous Metals
Via Moscova, 18 - Milano -

15 June 1945 from Montecatini.
Enclosed herewith is letter n.6037/ing.EC/ta dated

1 Ton zinc as mentioned.
Will you please release the 25 Tons aluminium and

locations given, other sources would be acceptable.
If you are unable to release these materials from the

GEORGE F. PARKER

Lt. Col.

Chief Milan Office

ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB.COM.
ALLIED COMMISSION
APO 394

112/15

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Via Moscova, 18 - Milano -

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15 June 1945 from Montecatini.

Will you please release the 25 Tons aluminium and
1 Ton zinc as mentioned.

If you are unable to release these materials from the
locations given, other sources would be acceptable.

1 Enclosure

GEORGE F. PARKER

Lt. Col.

Chief Milan Office

Letter presented lead
16/7/45
HFB
5341

11/1
Tel. 12641
Ext. 2218

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LOMBARDIA REGION
APO 394

PWU/18.7

27 June 1945

Subject : Release of copper

To : Comitato Non Ferrous Metals
Via Moscova, 18 - Milano -

15 Will you please release immediately for the Edison
Co. 20 Tons of electrolytic copper for drawing into copper
cable.

This cable is required for use in Toscana province
and authority is given for use outside Northern Italy.

For the Regional Commissioner :

C.P. BOLICE,

PTU/18.7

27 June 1945

Subject : Release of copper

To : Comitato Non Ferrous Metals
Via Moscova, 18 - Milano -

15 Will you please release immediately for the Edison
Co. 20 tons of electrolytic copper for drawing into copper
cable.

This cable is required for use in Toscana province
and authority is given for use outside Northern Italy.

For the Regional Commissioner :

C.P. BOLICK,
Colonel, F.A.
Regional Engineer.

Distributed :
Lt. Col. Parker.

5343

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LOMBARDIA REGION
COMMERCE DIVISION

21 June 1945

Ref : XI-358-COM

SUBJECT : Release of copper conductor

TO : Comitato Elettrotecnico, CLNAI

1. You are requested to authorize the release of the following copper conductor on behalf of Public Works & Utilities Sub-Commission, Rome.

a. Copper conductor, 122 sq.mm., 12 Tons

2. This conductor will be purchased by S.A. EDISON, and it is understood that the wire is already on hand at TRAFILERIE E LAMINATOI DI METALLI, VILLA CARGINA.

3. This material is to be used for repairs to transmission lines of great public importance, and you are requested to advise this office when the release has been granted.

A. S. Austin

Allen S. AUSTIN, Major C.R.
Executive Officer

Copies to:
✓ P.W. & U. S-C (1)
Central Economic Committee (2)

*Changed to 20 tons,
HJB*

5342

MILAN OFFICE
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB. COM.
ALLIED COMMISSION
APO 394

112/10

22 June 1945

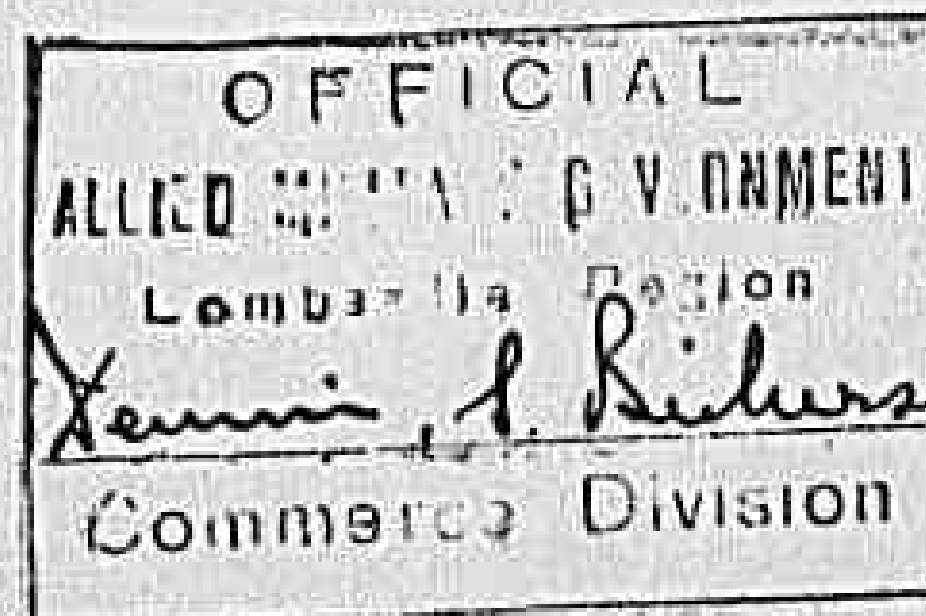
Subject : Electric trasmission lines.
To : Commerce Division - Lombardia Region -
Ref. : this office letter 112/5 dated 21 June 1945

It would be appreciated if you could authorize the release of 20 tons instead of the 12 Tons. mentioned in the above letter.

Copy of above letter is enclosed.

H/Bear Cyl
GEORGE F. PARKER
Lt. Col. Inf.
Chief Milan Office
Elec.Div. P.W?&.U./S.C.

Nº 1 Enclosure



Cancelled ⁵³⁴² Letter from
Lt Col Bolick

Short TRANSLATION of Letter:

To Soc. TRAFILERIE E CORDERIE ITALIANE. SESTO S. GIOVANNI
From Soc. NAZIONALE SVILUPPO IMPRESE ELETTRICHE. MILANO
13/6/1945

In name and for S.A.D.E. (Venezia) I have asked this morning by telephone your Sale Office whether you had available about 100 Kg of zinc-coated steel wire 35+40/10 size for our telephone lines. You have answered me no availability, but that you can offer us, if we are able to furnish you the raw material.

For that I ask you to explain me in how long you could deliver it, from receiving of raw materials, and what and how many materials are necessary for 100 Km about 38/10 size (that is about 88 Qls), and also your price for the transformation.

(Signed) Ing. Antonio Salce

ANSWER

Subject: 100 Km zinc-coated steel wire for telephone lines.

To your request of today, we inform that we are able to furnish 100 Km ~~mgf~~ of said wire in 20+30 days from the arrival of raw material (bars), that you may obtain by regular allowance.

The same time is necessary also in the case of material of your ownership for transformation.

About the sale conditions (or transformation) we reserve to fix them up in relation with the official lists of price in force at moment of delivering.

p.p. Soc. TRAFILERIE E CORDERIE IT.

(Signed) Illegible

5340

MILAN OFFICE

ELECTRICAL DIVISION

PUBLIC WORKS & UTILITIES SUB. COM.

ALLIED COMMISSION

APO 394

112/1B

22 June 1945

Subject : Electric transmission lines.

To : Commerce Division - Lombardia Region -

Ref. : this office letter 112/5 dated 21 June 1945

It would be appreciated if you could authorize the release of 20 tons instead of the 12 Tons. mentioned in the above letter.

Copy of above letter is enclosed.

1123
GEORGE F. PARKER
Lt. Col. Inf.
Chief Milan Office
Elec. Div. P.W&U./S.C.

ALLIED COMMISSION

APO 394

112/1B

22 June 1945

Subject : Electric trasmission lines.

To : Commerce Division - Lombardia Region -

Ref. : this office letter 112/5 dated 21 June 1945

It would be appreciated if you could authorize the release of 20 tons instead of the 12 Tons. mentioned in the above letter.

Copy of above letter is enclosed.

1123
b

GEORGE F. PARKER

It. Col. Inf.

Chief Milan Office

Elec.Div. P.W&U./S.C.

No 1 Enclosure

5339

1122/8

Tel. 12407
Ext. 2521

MILAN OFFICE
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES S/C.
ALLIED COMMISSION

APO 394

21-6-45

TO : U. D. L. - Ufficio Olii e Lubrificanti
Via Moscova - Milano -

Trafilerie e Laminatoi di Metalli are carrying out wire-drawing under priorities laid down of this office. For this purpose they require 18 Kg. of nafta for each 100 Kg. of copper.

At present they have about 40 tons. of copper for redrawing .
Can you possibly assist them in obtaining the nafta required.

HPR

GEORGE F. PARKER
Lt. Col. Ing.
Chief Milan Office
Elec. Div. P.W.&U. S/C.

Trafilerie e Laminatoi di Metalli devono trafilare rame per ordine di questo ufficio. Perciò essi richiedono 18 Kg. di nafta per ogni 100 di rame.

Al presente essi hanno circa 40 tons. di rame per la rifilatura. Aiutateli possibilmente nell'ottenere la nafta da essi richiesta.

GEORGE F. PARKER
Lt. Col. Inf.
Elec. Division P.W.&U. S/C

TO : U. D. L. - Ufficio Olii e Lubrificanti
Via Moscova - Milano -

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HVB

GEORGE F. PARKER
Lt. Col. Inf.
Chief Milan Office
Elec. Div. P.W.&U. S/C.

Trafilerie e Laminatoi di Metalli devono trafilare rame per ordine di questo ufficio. Perciò essi richiedono 18 Kg. di nafta per ogni 100 di rame.

Al presente essi hanno circa 40 tons. di rame per la ritrafilatura. Aiutateli possibilmente nell'ottenere la nafta da essi richiesta.

GEORGE F. PARKER
Lt. Col. Inf.
Elec. Division P.W.&U.S/C

Ph. 12407
Ext. 2521

MILAN OFFICE
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB.COM.
ALLIED COMMISSION
APO 394

Ref. 112/7

21 June, 1945

Subject : Electrical Transmission lines.
To : AMG 5th ARMY
(Attention : Public Safety Office)

Information has been received from the Edison Elec. Co. that copper is being removed by unauthorized persons from their damaged overhead transmission lines in the Adige Valley, especially in the vicinity of Mori.

It is the Company's intention to repair their lines at the earliest opportunity, but lack of ~~transportation~~ is impeding repair work.

It would be appreciated if you could assist and providing a "Patrol" or any other form of deterrent.

HVS
GEORGE F. PARKER
Lt. Col. Inf.
Chief of Milan Office

Ref. 112/7

21 June, 1945

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(Attention : Public Safety Office)

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It would be appreciated if you could assist and providing a "Patrol" or any other form of deterrent.

HVB

GEORGE F. PARKER
Lt. Col. Inf.
Chief of Milan Office

53338

Ph. 12007
Ext. 2521

MILAN OFFICE
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB. COM.
ALLIED COMMISSION

112/5
APO 394

21 June 1945

Subject : Electric transmission lines

TO : Commerce Division - Lombardia Region

The Edison Electricity Company are repairing transmission lines to supply energy urgently required in Central Italy.

Recent clearing of a minefield on a line between Parma and Florence has revealed a deficiency of 12 Tons of copper conductor.

Trafilerie e Laminatoi di Metalli - Villa Carcina - have ready, suitable copper conductor of 122 sq mm., belonging to the IT. SS. They can supply this immediately if you can arrange to supply 12 Tons of scrap copper to replace their stock.

It is requested that this release be authorized immediately.

Will you please notify this office when, and from where, this copper can be obtained.

HVB:cl
GEORGE F. PARKER

21 June 1945

Subject : Electric transmission lines
TO : Commerce Division - Lombardia Region

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Recent clearing of a minefield on a line between Parma and Florence has revealed a deficiency of 12 Tons of copper conductor.

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Will you please notify this office when, and from where, this copper can be obtained."

HPBul-GL
 GEORGE F. PARKER

Lt. Col. Inf.

Chief Milan Office

Elec. Div. P.W.&U. S/C.

5336

MILAN OFFICE
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB. COM.
ALLIED COMMISSION
APO 394

Tel. 12407
Ext. 2521

Ref. 112/2

18 June 1945

Subject : Transmission system North Italy
To : Public Work & Utilities S/C
Electrical Division
Attention : Lt. Col. W.M. Lapper

North Italy transmission situation report for
period 31 May through 15 June.
Map Reference : Electricity North Italy, High Voltage transmission
lines - A.C.C.

Line Repairs : situation at 15 June 1945

Central Section:

Line 553	Po crossing completed. This line will be used for 50 cycles from Gorlago to Ligonchio (Edison)
" 551	Repaired (Edison)
" 552	Repaired (Edison)
" 555	Po crossing completed. Line now serviceable between Boretto and Gotto. Work is now proceeding North of Boretto (Edison)
" CONIEL	(Bussolengo-Rubiera section) Edison have commenced work (CONIEL)
" 541	Edison plan to have material on location and begin repairs week June 18.

~~Western~~ Eastern Section

Line —	120 KV Vellai-Savio, both circuits repaired (SADE)
" 317	Completed-operating at 10 KV at present
" 313	Completed. For the Po crossing, this line runs on the FFSS towers. (SADE)

./.

- 2 -

Line 357 Line repaired with steel in certain places,
thereby limiting the output of Doblari slightly.

The wire drawing plant TRAFILERIE E LAMINATOI DI METALLI at VILLA CARCINA (15 Km North of Brescia) has been checked by this office as to inventory of stock and ability to produce. This plant is in good condition and has about 400 Tons of copper stock on hand most of which is in the form of conductors and already allotted to jobs. Edison Soc. Expects to get about 20 Tons. for the repairs to 120 KV line N° 541 LIGONCHIO-GALLICANO as they find more conductor is missing than expected.

S.A.D.E. Milan representative Engr. Salce is handling with above Company arrangements for redrawing copper necessary for job around Portomaggiore. The plant can start work as soon as scrap is made available, and can produce 12 Tons. per day. Arrangements are being made here for necessary fuel.


GEORGE F. PARKER
Lt. Col. Inf.
Chief Milan Office
Elec.Div. P.W.&U. S/C.

Distributed :
1 copy - Lt.Col. Lapper
1 " -Lt. Col. Renton

5334

Lt Col Parker
PWC

REC NORTH-CENTRAL ITALY TRANSMISSION INTERCONNECTION

10 JUNE MEETING.

11 JUN 1945

NO Amc 10 June 1945

At a meeting in Major E.J. Barry's office on 8 June to discuss the transmission interconnections between North and Central Italy, the following conclusions were reached:

- A. One 60 KV Ligonchio-Galliciano line (Valdarno) expected ready on Sunday 10 June. Valdarno estimates line capacity between 15,000 and 20,000 KVA.
 1. Lt-Col. Lapper will confirm previous conversation with Lt-Col. Cooley that connection from North will be paralleled with Leghorn Grid.
 2. Line from North will first be used to feed 60 KV transformer at Prato, an estimated load of 4,000 KW. In several days, an additional part of the Valdarno system will be supplied via Pian della Rocca and Tavarnuzze, through 120 KV circuit.
 3. Supply to Prato scheduled to be changed from South to North at about 1900 hrs. on Sunday. At that time, Valdarno engineers will discuss change over with Ing. Pietromarchi by telephone.
- B. A second 60 KV Ligonchio-Galliciano line (Valdarno) will be repaired on successive Sundays. Five Sundays estimated for completion.
- C. The 120 KV Ligonchio-Pian della Rocca line (Edison) expected ready 22 July. Five kilometers unrepaired.
 1. Mine clearing is bottle neck. Additional detectors believed on way. Further line repair awaiting mine clearing. Edison line men have left job but can return upon 24 hrs. notice of Major Barry to Col. Parker.
 2. Edison Company will supply conductor.
- D. When 120 KV Ligonchio-Pian della Rocca line is completed, North and Central Italy will be paralleled for 50 cycle operation (About 22 July.)
- E. The Tavarnuzze-Prato-Sprando-Ligonchio 120 KV line requires about 3 months work. Work now under way, 68 towers down, 180 tons of copper missing. Have approximately enough scrap

5333

for redrawing; not known whether Barga can redraw.

- F. Pian della Focca - Farnetta 120 KV line will require about one month's work in Valdarno territory; no estimate of work in Emiliana territory. Line not considered urgent.
- G. 120 KV Bologna - Refredi line still requires two months work with two platoons now on job. Arrangements being made to supply Bologna and with 50 cycles, 120 KV.
- H. Line from North into Porto Maggiore expected by 12 June. Porto Maggiore - Forli' 60 KV line wanted in two months. Area between Forli' and Rimini will be supplied from 15 KV grid.
 - 1. Early completion of Porto Maggiore - Forli' line hindered by:
 - a) Mines. Removal to be done by personnel from No 1 District; not started.
 - b) 35 tons of copper missing. Can be obtained from North in 3 months. (Check being made of copper drawing plant in Brescia). Some wire now being obtained from near by line.
 - 2. When Porto Maggiore - Forli' line is energized, power can be furnished to Ravenna over line now in fair condition.

R
VINAL S. RENTON,
Lt-Colonel Inf.,
Planning and Operations.

DISTRIBUTION:

Lieut-Col. Lapper
Lt-Col. Parker
Lt-Col. Renton
Major Barry
Major Wilcox.

MILAN OFFICE
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SU.COM.
ALLIED COMMISSION
A P O 394

Subject : Transmission system North Italy
To : Public Works & Utilities S/C
Electrical Division
Attention : Lt. Col. W.M. Lapper
Date : 1st July 1945

The following is a preliminary report on certain transmission-lines in North Italy.

Reference for line-numbers : Map - Electricity North Italy,
High Voltage Transmission Lines - A.C.C.-

Line Repairs = Situation at 31 May 1945

Central Section :

Line	557	repaired across Po river and now working (Edison)
"	553	work in hand at Po crossing. Estimated date of completion - 1 week - (Edison)
"	700	no work in hand at Po crossing (Emiliana)
"	555	no work in hand, 40 km damaged South of Mori, small damage near Guidizzolo, also damage at Po crossing. Edison consider about 2 months will be required to make necessary repairs to this line. They plan to repair Po crossing section immediately. They do not propose to commence work until July on the other sections, as the line passes over valuable crops. One circuit will be cannibalised to repair the other (Edison)
"	250	Line completed and supplying Ferrara at 50 kV.
"	533	(Bussolengo - Rubiera section). 2 conductors at the Po crossing and two towers elsewhere on this section are down. Estimate 20 days for repair.

5331

- 2 -

Edison may carry out this work as they consider S.A.E.'s rate excessive. (C.O.N.I.E.L.)

Line 533 (Rubiera-Tavernuzze section). Over 50 tower are down, but S.A.E. state they could repair this line in 2 months if given the contract. In the meantime 3 towers are reported stolen near Abetone. (C.O.N.I.E.L.)

" 255 Has been repaired and is now of a temporary nature and Montecatini consider it necessary to remake a number of joints before the next winter (Montecatini)

" 540 Progress is slow as minelifting is proceeding slowly. Repairs have been carried out on 2 spans at each end of the minefield area. 14 more spans require mine clearing (Edison)

" 326 (

" 554 (across the Po are operating

" 559 (

South-Eastern Section

S.A.D.E. propose to repair 120 kV line Noo 317 and feed Portomaggiore at 50 kV.

Romanola Company propose to repair lines 304 and 306 at 50 kV and distribute at 15 kV from Forlì to Cesena and Rimini.

For this work about 70 tons. of copper, located in Forlì area, will require to be redrawn.

Arrangements are in the hand for this at Milan, where a wire drawing firm is equipped with an electric furnace.

New Lines Under Construction :

Montecatini have 2 lines under construction which they plane to complete.

Tel-Bolzano 120 kV.- This line is complete except for a small amount of conductor which Montecatini hope to recover.

Vera-Battiglio-Power-station 120 kV. - This line is in the early stages of construction and Montecatini, plan now to work on a short section across the mountains which has to be completed in the summer weather. This work will consist of only a few

5330/.

- 3 -

tower foundations. When line completed will relieve overloaded lines in Valley west of Lake Maggiore.

Edison supply to FF.SS.

Edison Company are investigating the possibility of supplying energy at 16 cycle to the FF.SS. in Genoa area, as the FF.SS. sources of supply are insufficient.

For this purpose they plan to use Predare, Ligonchio and Teglia power-stations.

Line repairs will include the 2 lines Ligonchio-Aulla which pass through a minefield near Ligonchio.

This arrangement would tie in with the FALCK line from Milan to TEGLIA and GENOA.

More information on this plan as soon as details available and after meeting with State Railway Director here in Milan.

Transformer Moves

A number of transformers require moving in order to carry out repairs and effect replacements.

Arrangements are being made to obtain the necessary transportation.

GEORGE F. PARKER
Lt.Col. Inf.
Chief Milan Office
Elec.Div. P.W.&U. S/C

5329

To Major Bari,

May 12th 1945

Transmission lines work in progress:

Tavarnuzze - Pontedera - 30 KV line - completed from Tavarnuzze as far as tower No 115 (between Empoli and Santa Croce); another week is scheduled to complete the work.

Pescia - Pontedera - 30 KV line - line completed from Pescia as far as Altopascio; work suspended for lack of transportation

Rifredi - Grizzana - 30 KV line - 5 gangs railway workers are working from Rifredi as far as Grizzana; the repair will be completed by May 20th?

Piano della Rocca - Ligonchio - 120 KV line - One gang Selt-Valdarno workers is working in the section Piano della Rocca - Galliciano; this section will be completed by May 15th.

In the section Galliciano - Ligonchio (Edison property) 15 days work for one gang workers are scheduled to put the line in service. This work will start as soon as mines are cleared.

Piano della Rocca - Ligonchio - 2 circuits at 60 KV - one gang Selt-Valdarno is working in the section Piano della Rocca - Galliciano, and one gang Selt-Valdarno is working in the section Castelnuovo - Ligonchio; this two section will be completed by May 15th.

In the section Castelnuovo - Galliciano 15 days work for one gang workers are scheduled to put the line in service. This work will start as soon as mines are cleared.

REHABILITATION OF GENERATING PLANTS:

Piano della Rocca - Second group 14,000 KVA ready to be in service as soon as water is available;

Lima - Second group - Casting will be completed by May 20th. Electric work will be completed by May 15th.

Third group - The scroll case is ready in Follonica I.L.V.S. plant. The turbine and shaft are ready in Castelnuovo plant. The alternator is ready in Florence. At present Valdarno has no transportation to carry the material to Lima plant. 60/5 transformer is still under repair in Florence.

Ravacce - Building will be completed in 3 months. The turbine is completed at Cantini Works in Pistoia. The generator is still under repair.

Sperando - The building is completed; the roofing not yet so. The turbine is ready; insulating material is lacking to repair the generator.

Laterina - The group is assembled and will be ready by May 20th

5328
Rossetti

Report on Valdarno Lines (northern area) from Eng. Casali
11th May 1945

(all lines copper, except C.O.N.I.E.L.)

Pian della Rocca - Galliciano

120 KV (Valdarno) 1 circuit 100 mm² - complete 15th May
60 KV (Valdarno) 1 circuit 50 mm² - complete 15th May

Galliciano - Corfino - Many mines in the area Galliciano - Castelnuovo. One minelifting gang will start 14th May and estimate it will take them 45 days to clear a lane 10 m x 6 Km for each line. Work is commencing under the Valdarno 60 KV line.

120 KV (Edison) 1 circuit 128 mm² (5 towers down) complete
15 days after mines rem.
60 KV (Valdarno) 1 " 50 " (5 towers down) complete
15 days after mines removal
60 KV (Edison) 1 " 50 mm²

Corfino - Ligonchio

120 KV (Edison) 1 circuit 128 mm² O.K.
60 KV (Valdarno) 1 circuit 50 mm² O.K.
60 KV (Edison) 2 circuits 50 mm² O.K.

Pian della Rocca - Farneta

60 KV (insulator ^{120KV}) (Valdarno - Emiliana Co.) Valdarno section as far as Monte Giovo has conductors only down. Condition of Emiliana section unknown, except for some damage in minefield at Abetone.

Piano della Rocca - Tavarnuzze

120 KV (Valdarno) 1 circuit 100 mm² O.K.

Ligonchio - Tavarnuzze

120 KV (Valdarno) 1 circuit 100 mm² 40 towers down
Pian delagotti - Abetone and 25 towers down Abetone-Prato

Rubiera - Tavarnuzze

230 KV (C.O.N.I.E.L.) 1 circuit 508 mm² 25 towers down
Rubiera - Abetone and 22 towers down Abetone - Tavarnuzze. (About 20 new towers are reported available near Rubiera)

ADVANCED SECTION
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB-COMMISSION
ALLIED COMMISSION

6 Via Cerretani, Florence
Telephone n° 1153
May 2nd 1945

SUBJECT: Field trip Genova area.

TO : Electrical Division
Public Works & Utilities Sub-Commission
(attent. Lt-Col. Lapper)
H.Q.s Allied Commission
A.P.O. 394

Herewith data collected with detail of contacts made
by Major Wilcox:

Contacts: C.I.E.L.I. Direction
Eng. Balsamo - General Manager - Genova
Eng. Ghisleri - Technical Direction
Eng. Genesio - Load Dispatcher
(telephone n° 581522)

Generating plants in service:

<u>Name of plant</u>	<u>50 cycles</u>	<u>Power installed</u>	<u>Present output</u>
Casteldelfino	50 cycles	28,000 KW	12,000 KW
Sampeyre	" "	17,500 "	14,000 "
Brossasco	" "	35,000 "	12,000 "
Acceglio	16 "	14,000 "	14,000 "
Ponte Marmora	50/16 cycl.	7,500 "	7,000 "
San Damiano	50 cycles	14,000 "	14,000 "
Dronero	50 "	8,000 "	5,000 "
Moline	50 "	2,500 "	2,000 "
Molare	50 "	5,500 "	1,500 "
Bardi	50 "	4,600 "	1,500 "
Salsomino	50 "	14,000 "	8,000 "
Caroso	50 "	6,400 "	6,400 "
San Michele	50 "	7,000 "	7,000 "
Tigliolo	50 "	500 "	150 "
Chiesuola	50 "	500 "	150 "
Borzonasca I	50 "	1,000 "	200 "
Borzonasca II	50 "	1,000 "	200 "
Lago	50 "	1,000 "	1,000 "

GENOVA Steam Plant - May be operating at 50 cycles and 42 cycles
Has power installed of 50,000 KW (two 25,000 KW generators) Suffered slight damages to the electric installations. Consumption Kg 0.6 coal per KW/H. No coal in store at present. 4 months to be repaired.

5326

LA SPEZIA ProvinceGenerating plants

La Spezia Steam Plant: Power installed 10,000 KW. Not damaged.
Consumption Kg. 1.2 coal per KWH. Coal in store at present
Tons 500.

Hydraulic plants:

Bosco - 4000 KW without reservoir.	Summer reduced output.	42 cyc	
Marra - 4000 KW	"	"	"
Isola - 8000 KW with	"	"	"
Rigoso- 2000 KW	"	"	"
Selvanizza - 4000 KW with reservoir	"	"	"
Arlia - 2500 KW without reservoir	"	"	"

All the hydraulic plants are connected to the Isola Sub-station with 30 KV line. From Isola the power, at 60 KV is sent to Santo Stefano Magra. From Santo Stefano Magra to Genova one 60 KV line is O.K.

The Genova grid is connected with the Edison (Milano) grid through two 120 KV lines, one operating, the second one damaged.

5325

SAMPIERDARENA Steam Plant - Power installed 10,000 KW. Not damaged. Consumption Kg. 1.1 coal per KWH. No coal in store.

SAVONA Steam Plant - Not damaged. Power installed 8,000 KW. Consumption Kg. 1.2 coal per KWH. No coal in store.

Present load (May 1st 1945) in Genova 60,000 KW. 120,000 KW are expected to be available with little repairs to the transmission lines. Load April 30th was 70,000 KW.

The following plants located in Italy and the property of the C.I.E.L.I. have been occupied by French Army and (connected normally to the grid) are now disconnected:

San Dalmazzo di Tenda	50 cycles	24,000 KW
San Dalmazzo di Tenda	16 "	10,000 KW
Confine	50 "	8,000 "
Le Mesce	50 "	2,000 "

The following plants have been destroyed by the Germans since October 1944:

Airole	8,000 KW
Bevere	5,000 "

TRANSMISSION LINES

Casteldelfino, Sampeyre e Borsasco plants are connected with Genova through Cairo Montenotte substation with two circuits, one operating at 120 KV, the other one operating at 60 KV.

Acceglio, Pontemarmora, San Damiano, Dronero, Moline plants are connected with Cairo Montenotte and Genova through two circuits operated at 60 KV.

Molare plant is connected with Cairo Montenotte through two circuits operated at 60 KV.

Oneglia, Savona and Sampierdarena are connected with Genova through four circuits operated at 60 KV.

Salsomino, Bardi, Tigliolo; Lago, Chiesuola, Caroso, Borzonasca, San Michele are connected with Genova through one circuit operated at 30 KV. 120 KV line connecting the above plants to Genova is damaged in one point, in locality Cicogna. The repairs will be made as soon as the mines are cleared.

5324

ADVANCED SECTION
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB-COMMISSION
ALLIED COMMISSION

Electrical Situation report Bologna and vicinity, 26 April - 2 May

BOLOGNA

Contacted Major Praetz 5 Army City Command Engineer, Major Weeber 5 Army A.M.G. Engineer, and Eng. Ricci Director of Transmission & Generation Bolognese Co.

Up to 1700 hours 28th April, only 350 KW was available in the town; this was coming from the 3,000 KVA turbo unit at Battiferro, which was not in a condition to supply more.

At 1700 hours 28th April energy was available at 50 KV from Modena via line n° 500 and one circuit of the 120 KV FF.SS. line, the load was 4,500 KW.

On 2nd May, the 120 KV line Modena - Bologna was energized at 50 KV and the load on the two circuits reached 7500 KW.

The three portable Diesel sets scheduled for Bologna were diverted elsewhere, it is thought they went on to Verona.

Substations: - showing material in good condition:

1. Battiferro - undamaged except for 2 transformers.
 1 x 3000 KVA turbo alternator (output only 350 KW)
 1 x 300 KW turbine (damaged)
 5 x 6000 KVA transformers 50 KV
 2 synchronous condensers 6,000 KVA
2. Santa Viola - FF.SS. Completely destroyed.
3. San Giuseppe - (formally Borgo Panigale) Edison Co; completely destroyed.
4. Tre Madonne - Damaged by bombs.
 1 x 15,000 KVA transformer 120/15/6 KV
 necessary O.C.B.s for 120 KV and 15 KV
 Work was in hand making the S/S serviceable.

The Bolognese Co are working hard on repairs, but are handicapped by lack of transportation; 5 Army A.M.G. has been supplying this up to the present.

(2)

Calsoni Turbine Works - Damaged by bombs and a quantity of machinery removed.

MODENA

1st May - Met local Engineer of Emiliana Co.
Supply more or less normal.

PARMA

1st May - Met Ing. Muller and Ing. Pauri, Emiliana Co.
Supply more or less normal.

Ing. telephoned the Edison offices in Milan and obtained the following information:

1. Generating stations to the north functioning normally.
2. On the South, Farneta, Ligonchio, Predare and Selvanizza are functioning normally. Muschioso, Strettara and San Michele destroyed.
3. River Po crossings with lines down, but towers intact.

Piacenza - Lodi	line n° 557 - 60 KV
Parma-Corlago	" " 553 - 120 KV
Colorno - Asola	" " 700 - 60 KV
Corretto - Bussolengo	" " 555 - 120 KV
Bussolengo - Rubiera	" " 533 - 230 KV

4. No information available concerning lines or power plants north and east of Verona.

FERRARA

10th April. Took Ing. Modè of Bolognese Co. to inspect line Bologna - Ferrara; only one tower is down, but about 45 line breaks (about 5 days work).

Met engineer of Adriatica Co. and Capt. Gould of 156 CRE.
The thermal plant at Pontelagoscuro is destroyed.

A Diesel generator of 220 HP in Ferrara is being connected with the pumps by the Po to supply water to the town (estimated ready 2nd May). Another Diesel generator of 250 HP at Sant'Antonio nearby is being connected up to supply lighting for 8 Army (estimated ready 2nd May). Capt. Gould stated these two plants would supply all the needs of 8 Army and they were not prepared to assist with transportation to repair the Bologna-Ferrara 60 KV line.

5322

(3)

Factories. Synthetic Rubber Factory not damaged, but has not worked for 7 months for lack of coal. It possesses a 1,600 KVA turbine which supplies L.P. steam for process work. The boiler feed pumps and variable speed stoker motor has been removed by the Germans.

Aluminium factory very little damaged. This factory has not worked recently as it obtained its electric power from the FF.SS. and their S/S was badly damaged by bombing.

Soda factory is undamaged, but lacks raw material - salt.

Information from Capt. Gould appended re Ravenna, Forlì and Imola.

RAVENNA

Turbo plant at Classe Sugar Factory (2 x 500 KVA) is repaired and ready to supply 280 KVA to town if coal is available. No transformers are available, to step down remaining output from 15,000 Volt to 240 Volt.

FORLÌ

An oil fired steam plant at the Mangelli factory (1,400 KVA) is supplying energy to Forlì, Faenza and Cesena. A hydro-plant of 220 KW at Meldola is running also, but water limits the output to under 50 KW.

IMOLA

No supply available and all transmission lines badly damaged.

Other information gleaned from various sources;

Bussolengo Power Station - undamaged
Sorio I and II - one of these destroyed
Copper lines - generally intact, except FF.SS. lines and catenary wires which have been removed by the Germans in many cases.

Materials - Insulating materials, transformer and lubricating oils in very short supply.



HV Sub Cyl RA

5321

Distributions
Lt-Col. Lapper
Lt-Col. Renton
Lt-Col. Parker
Capt. Marshall liason Officer D.W. 15 Army Group
File

Capt Beck

April 5th 1945

To Major Growther.

60 KV line VAIONI - VERGATO two circuits.

Railway Office in Florence has no information. This line is near the front and railway workers are not allowed to operate.

220 KV line F.W. to SPERANDO.

The only information available in Florence is that between RIVEDI and MAMBIANO (about 2 Km. south of Sperando) the situation is as follows:

- n° 32 steel towers damaged
- in 108 spans the single conductor is missing
- " 53 spans the wire is damaged
- " 50 spans the guard wire is missing
- " 8 spans the guard wire is damaged

If the line must be repaired Selt-Valdarno Co. needs:

iron
conductors
calcium carbide
transportation
3 months work

This 220 KV line is "C.O.N.I.E.L." property and Selt-Valdarno is responsible from Tavarnuzze to ABETONE, 17 Km north of Sperando. *Now responsible for section Tavarnuzze - Robbia*

5320

2 miles from Tavarnuzze station

Tel. 489.681
Ext. 317

HEADQUARTERS ALLIED COMMISSION

AIC 394

Public Works and Utilities Sub-Commission

Reference : 158/FWU

132 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

LIEUT. COLONEL
Chief Elec. Div.

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TOSCANA REGION
EMILIA REGION
LIGURIA - PIEMONTE REGION
LOMBARDIA REGION
VENETIA REGION

D.M. - AFHQ
C.E. - 15 Army Group
O.I.T. - G-2 AFHQ C.M.F., Att. Maj. Corvin

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For the Chief Commissioner

L. J. Lapper
Lieut-Colonel
Chief Elec. Div.

Distribution:

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

To : PUBLIC WORKS AND UTILITIES SUB-COMMISSION, HQ AC, AFO 394
(Attention Lieut-Colonel L. J. Lapper)

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

5319

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

Tel. 469.081
Ext. 317

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

WLL/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

<u>Page No. 1</u>	-	General data.
<u>Page No. 2</u>	-	Summary of progress during March.
<u>Pages No. 3 - 6</u>	-	Details of progress of repairs to generating plants and associated equipment.
<u>Pages No. 7 - 9</u>	-	Details of progress of repairs to transmission system.
<u>Page No. 10</u>	-	Six month estimate of restoration of generating facilities.
<u>Pages No. 11 - 12</u>	-	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 Committee 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

Plant and Transmission System in ItalyMonth of March 1945I N D E X

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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.

W. A. Laffer
 W. A. Laffer
 Lieut-Colonel,
 Chief Elec. Div.

5318

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 resto- red 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 KWhx10 ⁶	19.5	17.6	-
5	System load factor %	75	80	-
6	Percentage of units generated by hydro plants	95	85	-

No.		South Italy	Central Italy	North Italy
1	Nameplate capacity of generating plant resto- red to service during March 1945	0.0	12.25	-
2	Output capacity expected from above plant during April 1 1945	0.0	12.25	-
3	Maximum load carried to date	173.5	111.4	-
4	Present average weekly units being generated	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)	15	109	5317
8	Approximate number of civilian labour directly engaged on Electrical Rehabilitation work	940	3,700	-

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 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

1	Manorplate capacity of Generating Stations 31 December 1941	kw	473.1	879.7	4,683.3
2	Manorplate 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	Manorplate 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
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	3,932	-

DETAILS OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT

Name of Station and Number of unit	Company	Name, date size of unit under repair	Expected Date of Completion	REL a) Progress - b) Cause of delay
ACQUOLA No. 2	S.F.E.	4.0	April '45	a) Up to schedule. b) None. c) None.
AVENTINO No. 1	S.F.E.	4.2	May '45	a) Up to revised schedule. b) Fabrication difficulties. c) None.
CEFRANO No. 2	S.F.E.	5.5	May '45	a) Slow. b) Coils late from Lacer Co. c) None.
GALLETO No. 3	TERMI	34.4	April '45	a) Slow. b) None. c) None.
LEMA No. 2	VALDARNO	1.5	April '45	a) Up to schedule. b) None. c) None.
PIAN DELLA ROCCA	VALDARNO	11.0	April '45	a) Up to schedule. b) None. c) None.
GLIOSA I No. 1	U.N.E.S.	8.0	May '45	a) Up to revised schedule. b) Lack of foundry and shop facilities. c) None.

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OF PROGRESS OF REPAIRS TO GENERATING PLANTS AND ASSOCIATED EQUIPMENT

Company	Name plate size of unit under repair MW	Expected Date of Completion	<u>REPAIRS</u> a) Progress - b) Cause of delay - c) Materials required.
E.E.	4.0	April '45	a) Up to schedule. b) None. c) None.
E.E.	4.2	May '45	a) Up to revised schedule. b) Fabrication difficulties penstock plates. c) None.
E.E.	5.5	May '45	a) Slow. b) Coils late from Kater Co. c) None.
NI	34.4	April '45	a) Slow. b) None. c) None.
WNO	1.5	April '45	a) Up to schedule. b) None. c) None.
WNO	11.0	April '45	a) Up to schedule. b) None. c) None.
E.S.	8.0	May '45	a) Up to revised schedule. b) Lack of foundry and shop facilities. c) None.

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	a) Progress - b) Cause of delay - c) None.
CASTELLANO	U.N.E.S.	2.25	June '45	a) Up to schedule. b) None. c) None.
CASTEL MADAMA	A.C.E.A.	5.0	June '45	a) Up to revised schedule. b) Lack of shop facilities. c) None.
FONTECUFA	S.R.E.	3.8	June '45	a) Up to schedule. b) None. c) Steel and Cement.
GALLIETO No. 4	TERMI	34.4	June '45	a) Up to schedule. b) None. c) Rubber packing.
FONTE FINE	S.R.E.	3.4	June '45	a) Slow. b) Lack of steel shapes. c) Steel.
LAVIDELA	A.C.E.A.	3.0	July '45	a) Slow. b) Insufficient shop facilities. c) None.
VERAMATELLO	U.N.E.S.	3.0	July '45	a) Up to schedule. b) None. c) Insulating tape and

GRESS 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 - Materials required.
U.N.E.S.	2.25	June '45	a) Up to schedule. b) None. c) None.
A.C.E.A.	5.0	June '45	a) Up to revised schedule. b) Lack of shop facilities. c) None.
S.K.E.	3.8	June '45	a) Up to schedule. b) None. c) Steel and Cement.
TELVI	34.4	June '45	a) Up to schedule. b) None. c) Rubber packing.
S.J.E.	3.4	June '45	a) Slow. b) Lack of steel shapes for intake gates. c) Steel.
A.C.E.A.	3.0	July '45	a) Slow. b) Insufficient shop facilities. c) None.
U.N.E.S.	3.0	July '45	a) Up to schedule. b) None. c) Insulating tape and solder.

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	Expected Date of Completion	a) Progress - b) Cause
GALLETO No. 2	TERNI	34.4	August '45	a) Up to schedule. b) None. c) Rubber packing mater
SALISANO	A.C.E.A.	8.0	September '45	a) Up to schedule. b) None. c) None.
ANVERSA	FF.SS.	10.0	October '45	a) Slow. b) Shortage of transport c) None.
COTILIA	TERNI	24.0	November '45	a) Slow. b) Shortage of transport c) None.
PESCARA III No. 1	S.I.E.	10.0	November '45	a) Up to revised schedule b) Shortage of transport c) Carbide and coke.
ACQUOLA No. 3	S.I.E.	14.0	December '45	a) Up to schedule. b) None. c) None.
FARFA No. 2	S.I.E.	6.0	December '45	a) Up to revised schedule b) Lack of materials and c) None.
FONTANA LIRI	S.I.E.	1.0	December '45	a) Up to schedule. b) None c) None.

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

Company	Name plate size of unit under repair MW	Expected Date of Completion	REPAIRS
			a) Progress - b) Cause of delay - c) Materials required.
TERMI	34.4	August '45	a) Up to schedule. b) None. c) Rubber packing materials.
A.C.E.A.	8.0	September '45	a) Up to schedule. b) None. c) None.
FF.SS.	10.0	October '45	a) Slow. b) Shortage of transport. Now under control. c) None.
TERMI	24.0	November '45	a) Slow. b) Shortage of transport. c) None.
S.M.E.	10.0	November '45	a) Up to revised schedule. b) Shortage of transport. c) Carbiue and coke.
S.H.E.	14.0	December '45	a) Up to schedule. b) None. c) None.
S.H.E.	6.0	December '45	a) Up to revised schedule. b) Lack of materials and coordination of transport. c) None.
S.H.E.	1.0	December '45	a) Up to schedule. b) None. c) None.

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

Name of Station and Number of unit	Company	Name plate size of unit under repair L.W.	Expected Date of Completion	REMARKS a) Progress - b) Cause of delay
LORNO	S.I.E.	6.0	December '45	a) Up to schedule. b) None. c) None.
FESCARA III No. 2	S.I.E.	10.0	December '45	a) Up to schedule. b) None. c) None.
VENNARTELLO	U.N.E.S.	8.0	December '45	a) Up to schedule. b) Previously crowded shop facilities. c) None.
FESCARA IV	S.I.E.	8.2	January '45	a) Up to revised schedule. b) Transportation of damaged parts. c) None.
LIVORNO	VALDARNO	11.0	Not yet accurately determined	Repairs started 20 March 1945.
LUSSI SUL TRIVIO II	Soc. Az. Chimica	1.0	Not yet accurately determined	a) Dismantling alternator and re b) No priority for new castings. c)
FESCARA II No. 1	S.I.E.	6.0	Not yet accurately determined	a) Dismantling of plant begun. b) Building completely demolished. c)
FESCARA II No. 2	S.I.E.	6.0	Not yet accurately determined	a) Dismantling of plant begun. b) Building completely demolished. c)

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

Company	Name plate size of unit under repair in	Expected Date of Completion	REMARKS
			a) Progress - b) Cause of delay - c) Materials required
S.H.E.	6.0	December '45	a) Up to schedule. b) None. c) None.
S.H.E.	10.0	December '45	a) Up to schedule. b) None. c) None.
U.W.E.S.	8.0	December '45	a) Up to schedule. b) Previously crowded shop facilities. c) None.
S.H.E.	8.2	January '45	a) Up to revised schedule. b) Transportation of damaged parts. c) None.
VALDAINO	11.0	Not yet accurately determined	Repairs started 20 March 1945.
Soc. Naz. Chimica	1.0	Not yet accurately determined	a) Dismantling alternator and rebuilding power house. b) No priority for new castings. c) -
S.H.E.	6.0	Not yet accurately determined	a) Dismantling of plant begun. b) Building completely demolished. c) -
S.H.E.	6.0	Not yet accurately determined	a) Dismantling of plant begun. b) Building completely demolished. c) -

DETAILS OF PROGRESS OF RELATE TO TRANSMISSION SYSTEM

Name of line	Company	Voltage of line KV	Expected Date of Completion	a) Progress
GRILLO - LAURENTIA	A.C.E.A.	150	15 April	a) Up to re b) Construc c) None.
CECCANO - TOSTINA	S.A.E.	60	15 April	a) Up to re b) Previous c) None.
PERUGIA - FANICALE	U.I.L.S.	30	25 April	a) Up to so b) None. c) None.
TERNI - TORRE DI QUELTO (red circuit)	S.A.E.	60	30 April	a) Up to so b) None. c) None.
TERNI - TUDUMINO (white circuit)	S.A.E.	60	30 April	a) Up to so b) None. c) None.
FOLIGNO - CASSI	TERMI	120	15 May	a) Work star b) None c) None
RIETI - GORIZIA	FF.SS.	120	15 May	a) Up to sol b) None. c) None.

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DETAILS OF PROGRESS OF RELIANTS TO TRANSMISSION SYSTEM

Company	Voltage of Line KV	Expected Date of Completion	RELIANTS
			a) Progress - b) Cause of delay - c) Materials required.
A.C.E.A.	150	15 April	a) Up to revised schedule. b) Construction equipment taken elsewhere. c) None.
S.I.B.	60	15 April	a) Up to revised schedule. b) Previously slowed by insufficient transport. c) None.
O.I.L.S.	30	25 April	a) Up to schedule. b) None. c) None.
S.H.E.	60	30 April	a) Up to schedule. b) None. c) None.
S.H.E.	60	30 April	a) Up to schedule. b) None. c) None.
TEMI	120	15 May	a) Work started on 7 April. b) None. c) None.
FF.SS.	120	15 May	a) Up to schedule. b) None. c) None.

DETAILS OF PROCESS OF REPAIRS TO TRANSMISSION SYSTEM (Continued)

Name of Line	Company	Voltage of Line KV	Expected Date of Completion	a) Progress - b) Ca
TERZI - S.PAULO	A.C.E.A.	60	1 June	a) Up to schedule. b) None. c) None.
FOLIGNO - FALCONARA (Nord)	FF.SS.	120	15 July	a) Up to schedule. b) None. c) None.
FOLIGNO - FALCONARA (Sud)	FF.SS.	120	15 July	a) Up to schedule. b) None. c) None.
LAMBRATELLO - PORTICINO	FF.SS.	120	31 July	a) Work will start o b) None. c) None.
CANTERNO - CINECITTÀ	S.h.E.	150	31 July	a) Up to schedule. b) None c) None
ORTE - PORTICINO - RIFREDI (Nord)	FF.SS.	120	15 August	a) Up to schedule. b) None c) None
ORTE - PORTICINO - RIFREDI (Sud)	FF.SS.	120	15 August	a) Up to schedule. b) None. c) None.

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DETAILS OF PROGRESS OF RELAYS TO TRANSMISSION SYSTEM (Continued)

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

DETAILS OF PROGRESS OF RETAHS TO TRANSMISSION SYSTEM (Cont)

Name of Line	Company	Voltage of Line KV	Expected Date of Completion	a) Progress
FREVESTINA - ANVERSA	FF.SS.	60	30 September	a) Contract
LARGHERELLO - CASCINA - S. JOMANO	FF.SS.	120	15 November	a) Work will b) None. c) None.
COTILIA - PESCARA III	TEINI	150	January 1946	a) Up to sche b) None. c) None.
FONTICINO - RICCIONE	FF.S.	120	Unknown	a) Work to be
ARCHI - FRATTAMAGGIORE	S.A.E.	150	Unknown	a) 10 % comple
LIVORNO - FONTEDESA	VALDARNO	30	Unknown	a) Completed 7 b) Temporarily c) None.
PESCIA - FONTEDESA	VALDARNO	30	Unknown	a) Completed 7 b) Temporarily c) None.
TAVARUZZE - ELLI	VALDARNO	30	30 April '45	a) Completed 2

DETAILS OF PROGRESS OF RELATIONSHIP TO TRANSMISSION SYSTEM (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. b) None. c) None.
TEMI	150	January 1946	a) Up to schedule. b) None. c) None.
FF.S.S.	120	Unknown	a) Work to be contracted for.
S.M.E.	150	Unknown	a) 10 % completed.
VALDARNO	30	Unknown	a) Completed 70 %. b) Temporarily suspended - No transport. c) None.
VALDARNO	30	Unknown	a) Completed 70 %. b) Temporarily suspended - No transport. 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

(Nameplate Capacity)

Name of Station and number of unit	Company	Y E A R 1 9 4 5					
		April 30th MW	May 31st MW	June 30th MW	July 31st MW	Aug. 31st MW	Sept. 30th MW
ACQUORIA NO. 2	S.H.E.	4.0					
CEFRANO NO. 2	"		5.5				
FONTECUFA	"			3.8			
FONTEFIDUE	"			3.4			
CASTELLADALA	A.O.E.A.			5.0			
LAIDELLA	"				3.0		8.0
SALISANO	"						
CASTELLANO	U.S.E.S.			2.25			
GEROSA	"		8.0				
VEVALARTELLO	"				3.0		
GALILEO NO. 3	TERMI	34.4					
GALILEO NO. 4	"			34.4			34.4
	"						

1945

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
ACQUORIA No. 2	S.H.E.	4.0					
CETRANO No. 2	"		5.5				
FONTECOLA	"			3.8			
FONTEFIRME	"			3.4			
CASTELLADARA	A.C.E.A.			5.0			
LAIDELA	"				3.0		8.0
SALISANO	"						
CASTELLANO	U.I.E.S.			2.25			
GEROSA	"		6.0				
VERGARTELLO	"				3.0		
GALLETO No. 3	TELEMI	34.4					
GALLETO No. 4	"			34.4			
GALLETO No. 2	"					34.4	
ILDA No. 2	VALLEBANO	1.5					
PIA DELLA	"	11.0					
ROCCA No. 2	"						
AVERTATA No. 1	S.H.E.		4.2				
Monthly Increase		50.9	17.7	48.85	6.0	530.8	8.0

CENTRAL ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

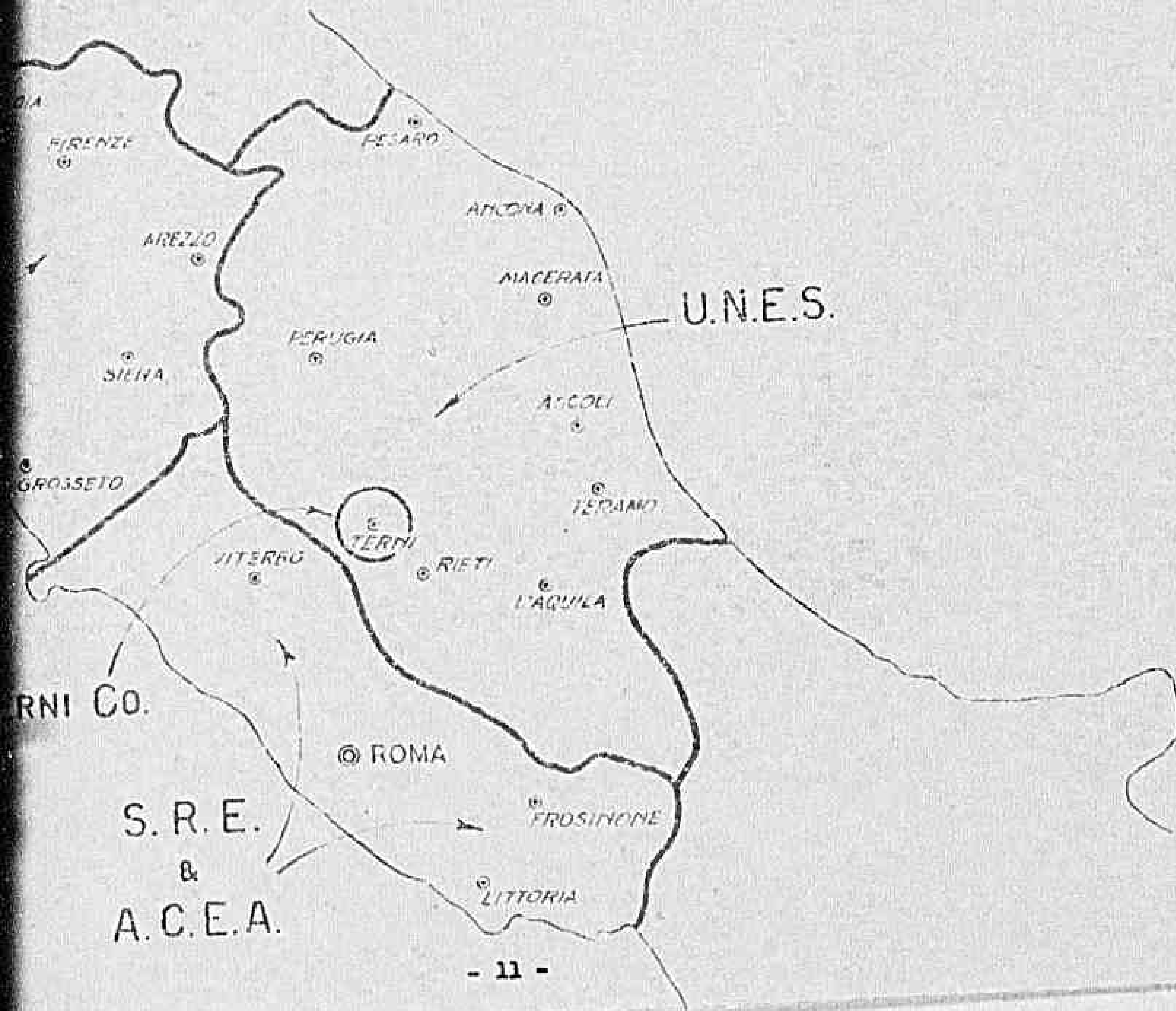
MAP OF CENTRAL ITALY AREA



CENTRAL ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

MAP OF CENTRAL ITALY AREA

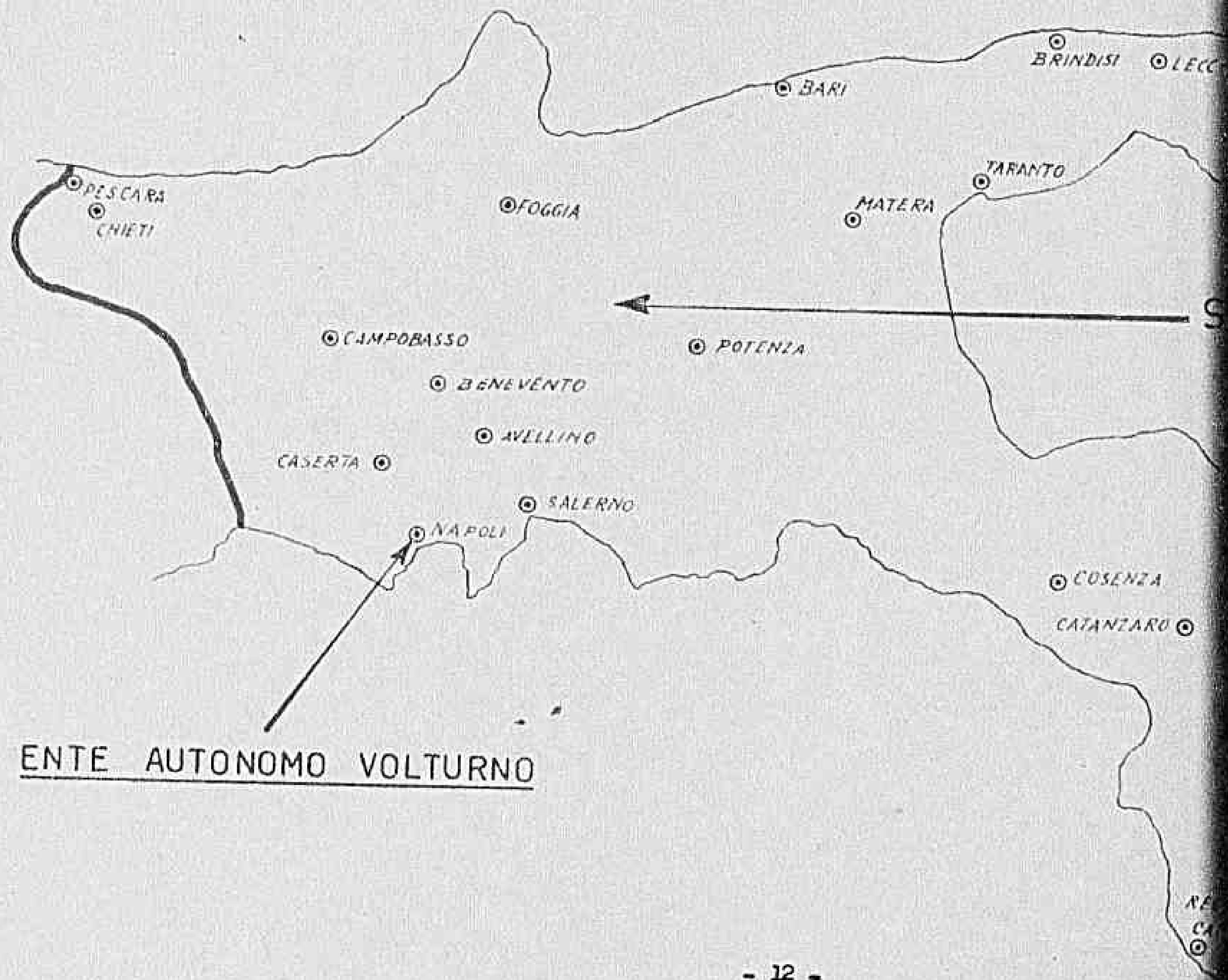


AC/OP/EL/9

SOUTHERN ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

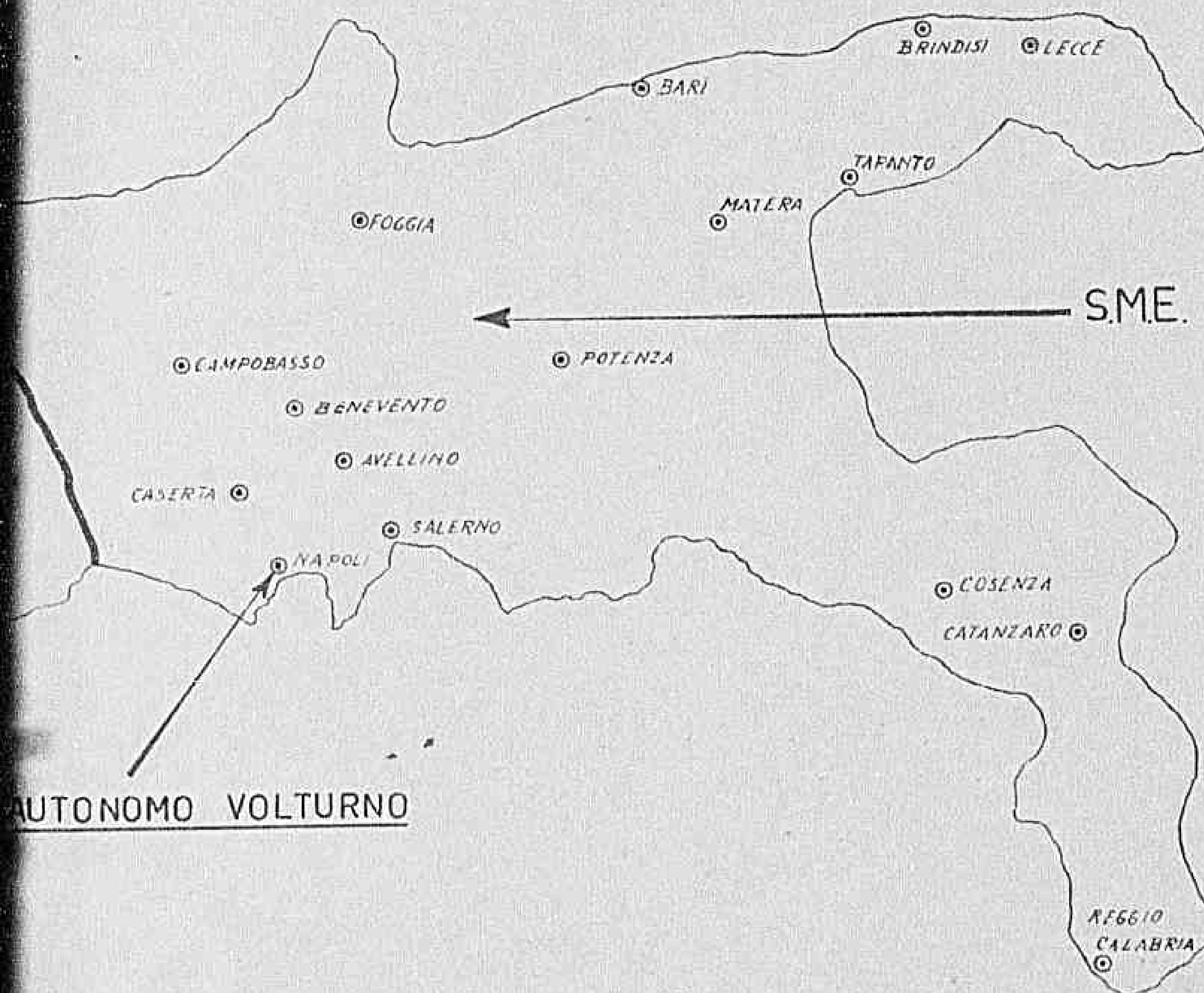
MAP OF SOUTHERN ITALY AREA



SOUTHERN ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER

MAP OF SOUTHERN ITALY AREA



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. M. Laffer
W.M. Laffer Lt. Col.
Chief Electrical Division

RESTORATION OF ITALIAN ELECTRICAL PLANT AND TRANSMISSION SYSTEM

PROGRESS REPORT FOR MONTH OF FEBRUARY 1945

W.M. Laffer

W.M. Laffer 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 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.
ANGHIARI	1,308	-	War damage.
ANVERSA PRINCIPALE	30,000	-	War damage.
AROI	8,320	4,800	Insufficient water.
ARELLA	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 (PIORACCI)	1,182	-	No external line.
BUSSI SUL TIRINO 2 S.	1,500	-	War damage.
CANISTRO	Now const.	-	War damage 12,960 KW.
CANTERNO	10,000	5,000	Insufficient water.
CARASSI (NON GRID)	1,048	470 @	Canal in bad condition.
CASTELLANO	6,720	-	War damage.
CASTELLADAMA	14,000	-	War damage.

ACQUORIA	57,300	3,500	War damage.
ANCONA TH.	4,240	-	War damage.
ANGHIARI	1,308	-	War damage.
ANVERSA PRINCIPALE	30,000	-	War damage.
AROI	8,320	4,800	Insufficient water.
ARELLA	3,500	-	Enemy hands.
AVENTINO	9,600	-	War damage.
BASTARDO TH.	15,000	-	War damage.
BOLOGNOLA (NEW GRID)	2,760	1,310	Insufficient water.
BORGO (PIORACO)	1,182	-	No external line.
BUSSI SUL TIRINO 2 S.	1,500	-	War damage.
CANISTERO	Now const.	-	War damage 12,960 KW.
CANTIERO	10,000	5,000	Insufficient water.
CARASSI (NON GRID)	1,048	470 @	Canal in bad condition.
CASSELLANO	6,720	-	War damage.
CASSEMADAMA	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. 5304
COLLESTATTE	9,000	-	War damage.
COMUNACQUE	9,120	5,700	Insufficient water.

CENTRAL ITALY

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 CECIO	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	54,400	War damage.
GALLICIANO	22,000	-	War damage.
GEROSI 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 Portabolo (U.S. ARMY - NON GRID)	1,600	1,600	
MONTE...	6,000	-	War damage.

CORFINO (PONTI COSE)	4,780	-	Enemy hands.
COTILLA	54,720	-	War damage.
DE CECIO	1,800	550 @	Water for 2 units.
ELIPA 1	19,200	-	War damage.
ELIPA 2	9,000	4,000	War damage.
FONTANA LIRI (GERASOLI) 2,880		-	War damage.
FONTECUPA	4,800	-	War damage.
FUHL	2,820	-	War damage.
GALLIETO	137,600	34,400	War damage.
GALLICIANO	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 Portabio (U.S. ARMY-NON GRID)	1,600	1,600	
MANDEL.	6,000	-	War damage.
MARABBE	17,900	-	War damage.
MOLINA ATERNO	1,050	-	War damage.
MORINO 1 S. (INES)	1,080	-	War damage.
MORINO 2 S. (INES)	1,666	-	War damage.
MORINO (SEE)	12,800	-	War damage.
MOZZANO	2,850	-	War damage.

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CENTRAL ITALY

TABLE "2" (Continued)

Name of Station	Installed generating capacity KW	Present output capacity KW	REMARKS Reason for LOSS in output
NERA MONTORO	19,600	15,800	Water limited by gallery size.
PAPIENO	66,000	-	War damage.
PAVANA	12,800	-	War damage.
PEDASO (NON GRID)	4,500	3,650	
PELLICOLI (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.
PLAN RUCCI (NON GRID)	1,920	1,900 @	
PLAN DELLA ROCCA (NON GRID)	33,600	1,000 @	War damage and insufficient water.
PIANICELLA	1,870	1,600	
PIETRATITTA TH.	16,300	-	War damage.
PICCIBINO TH.	6,960	-	War damage.
POLVERIFICIO FONTANA LIRI	1,850	-	War damage.
PONTETILE (S.GIOV. INC.)	9,000	-	War damage.

NOLA MONTORO	19,600	15,800	Water limited by gallery size.
PAPIANO	66,000	-	War damage.
PAVIA	12,800	-	War damage.
PEDASO (NON GRID)	4,500	3,650	
PELAGGILI (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.
PETTORINO (GIZIO) (NON GRID)	4,000	-	War damage.
PLANARUCCI (NON GRID)	1,920	1,900 @	
PLAN DELLA ROCCA (NON GRID)	33,600	1,000 @	War damage and insufficient water.
PLANICELLA	1,870	1,600	
PIETRATITTA TH.	16,500	-	War damage.
PIOMBINO TH.	6,960	-	War damage.
POLVERIFICIO FONTANA LIRI	1,850	-	War damage.
PONTERILE (S.GIOV. INC.)	9,000	-	War damage.
PORRINO 3 S. (DIST. ICHIE)	7,100	-	War damage.
POROTTEGALIO TH.	4,480	-	War damage.
PRATUNICO	1,175	-	War damage.
PRECI	9,100	-	War damage.
PROVVIDENTA	New const.	-	Proposed 120,000 KW.
RIERI TH. (NON GRID)	2,000	840	Stand by only.
RIFREDI TH.	7,000	-	War damage.

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CENTRAL ITALY

TABLE "A" (Continued)

Name of Station	Installed generating capacity KW	Present output capacity KW	REASONS Reason for LOSS in output
RIORDINO (FIBRENO) (NEW GRID)	3,400	1,400 @	War damage.
BOCCHETTA	3,400	-	Enemy hands.
ROME TH.	52,000	28,400	Maint. & Repairs.
ROSIGNANO TH.	9,344	3,000 @	War damage.
SALIZANO	16,000	-	War damage.
S. ELENA	1,360	185	War damage.
S. GIULIO	New const.	-	Proposed 158,400 KW.
S. SALVINO (SEE)	1,408	480	Insufficient water.
SCARFELLE	8,000	4,000	War damage and low water.
SELVENA	3,150	1,000	Enemy hands.
SILLANO	1,080	-	Enemy hands.
SILLICO	1,200	-	Enemy hands.
SPERANO	12,680	-	War damage.
SPOLETO (NEW GRID)	2,450	250	War damage.
SUBILCO	7,760	3,200	Enemy hands.
TAGLIA	30,000	-	War damage.
TERNI JUTE	1,100	900	War damage.
TERNI MUNIC.	2,800	-	War damage.

War damage out.

RIORDINO (FIBRINO) (NON GRID)	3,400	1,400 @	War damage.
ROCCETTA	3,400	-	Enemy hands.
ROME TH.	52,000	28,400	Maint. & Repairs.
ROSIGNANO TH.	9,344	3,000 @	War damage.
SALIZANO	16,000	-	War damage.
S. ELENA	1,360	185	War damage.
S. GILICOMO	New const.	-	Proposed 158,400 KW.
S. SAVINO (SRE)	1,408	480	Insufficient water.
SCALFELLE	8,000	4,000	War damage and low water.
SELVENA	3,150	1,000	Enemy hands.
SILLANO	1,080	-	Enemy hands.
SILLICO	1,200	-	War damage.
SPERANO	12,680	-	War damage.
SPOLETO (NON GRID)	2,450	250	War damage.
SUBLACO	7,760	3,200	Enemy hands.
TACCI	30,000	-	War damage.
TERNI JUTE	1,100	900	Generator burned out.
TERNI MUNIC.	2,800	-	War damage.
TERNI PLATE	1,500	-	Generator burned out.
TERNI STEEL	600	450	War damage.
VENAMARTINO	15,520	-	War damage.
VISTA	2,640	2,200	War damage.
VULCI	3,520	2,200	War damage.
ZECOA 1	1,775	-	War damage.
ZECOA 2	1,200	-	War damage.
SMALL PLANTS	64,306	11,280	53 Plants operating.

5301

CENTRAL ITALY

TABLE "A" (Continued)

Name of Station	Installed generating capacity KW	Present output capacity KW	Kilowatts Reason for loss in output
<u>MOLISE</u>			
CAPO VOLTURNO	20,000	-	War damage.
LATE (PRATA SANNITA)	9,400	-	War damage.
PONTEROTTO	2,240	-	War damage.
S. MASSIMO	5,000	-	War damage.
S. SPIRITO	1,250	-	War damage.
SCLERA	1,070	-	War damage.
VALLECURA	1,000	-	War damage.
TOTALS	1,300,572	160,105	

MOLISE			War damage.
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	5300

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.
ACQUILA	3,500		4,000				
ABCI	8,320						
BOLOGNOLA	2,760						
CANTIERO	10,000						
CARASSAI	720						
CEPRANO	3,500		5,500				
CERVARA	9,000						
COMMUNACQUA	9,120		4,560				
DE CECCO	600						
F. R. 2	4,500						
GILLESIO	34,400		34,400		34,400		34,400
LAMA DEI PELICCI	840						
LARDERELLO 1	3,900						
LEGGHORN (U.S.A.A.)	1,600						
NERA MONTORO	19,600						
PEDASO	4,500						
PELLICELLI	1,000						
PIANERUCCI	1,920						

ARCI	8,320					
BOLOGNOLA	2,760					
CANTERNO	10,000					
CARASSATI	720					
CEPRANO	3,500	5,500				
CERVARA	9,000					
COMUNACQUA	9,120	- 4,560				
DE CECOO	600					
FARFA 2	4,500					
GALLATO	34,400	34,400				34,400
LAMA DEI PELICCI	840					
LARDERELLO 1	3,900					
LEGHORN (U.S.A.)	1,600					
NERA MONTORO	19,600					
PEDASO	4,500					
PELLICOLI	1,000					
PIACERUCCI	1,920					
PLAN DELLA BOCCA	14,000	11,000				
PLANICELLA	1,870					
RIETI TH.	1,000					
RIOREDDINO	1,400					
ROME THERMAL	33,000					
ROSIGNANO	6,000					
S. ELENA	400					
S. SALVINO (SEE)	800					

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CENTRAL ITALY

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.
SCALFELLO	4,000						
SELVANA	1,575						
SPOLETO	350						
SUBLACO	3,880						
TRAGUINIA	150						
TERNI JUTE	1,100						
TERNI STEEL	600						
VESTA	2,640						
VULCI	3,520						
SMALL PLANTS	15,551						
ADDOLORATA		560					
AVENTINO		250	4,200				
BACINI DI TIVOLI					2,250		
CASTELLANO					6,000		
CASTELNUOVO CECINA		12,000			4,560		
CASTELLANETTA					3,800		
FARFA 1							
FORTE GUERRA							
GEROSA 1		1,500	4,000				
LIMA							
MANDELLA							
MOLINA ATERNO			500				
MOREONE			140				
PONTERIVONE					3,400		
						3,000	

SCHIAFFALE	4,000								
SILVERA	1,575								
SPOLITO	350								
SUBIACO	3,880								
TARQUINIA	150								
TERMI IJUE	1,100								
TERNI STEEL	600								
VESTA	2,640								
VULCI	3,520								
SMALL PLANTS	15,551								
ADDOLORATA		560							
AVENTINO		250		4,200					
BAGNI DI TIVOLI									
CASTELLANO		12,000				2,250			
CASERTA NUOVO CECINA						6,000			
CASERTANUOVA						4,560			
FABRA 1						3,800			
FORTE GUERRE									
GROSSETO 1		1,500		4,000			3,000		
LIMA									
MARELLA									
MOLINA ATERNO									
MORICONE				500					
PONTEFUTURO				140					
SALISANO						3,400			
VENEGARA SERIO						3,000			
Monthly Increase		25,310	48,180	-		57,410	3,000		8,000
TOTALS	211,616	236,926	285,106	285,106	342,516	345,516	387,916		

SOUTHERN ITALY

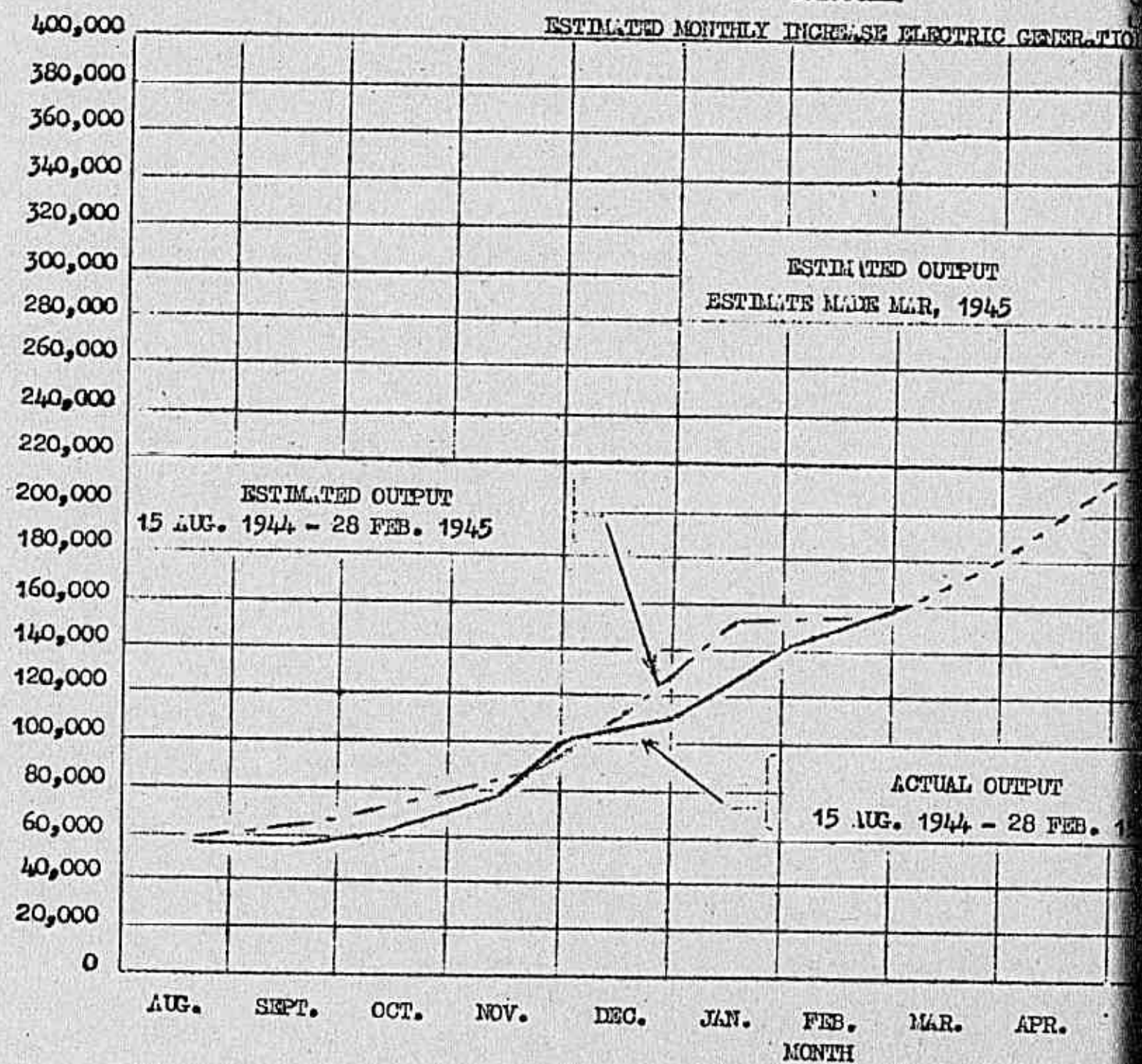
TABLE "Q"

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.
CAPTANO TH.	45,000	20,000	-
CARDONE	1,050	-	No report.
QUELESTE	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.
MARMARICO (FERDINANDEA)	1,800	-	No report.
MERCURE	1,308	-	No report.
MURO LUCANO	1,680	-	No report.
NAPOLI SETA TH.	1,800	-	No report.
ORICHIELLA	54,000	36,000	Damaged unit.

ANIC TH.	3,000	-	No report.
CALUSIA	33,200	19,000	Insufficient water.
CAPUANO TH.	45,000	20,000	-
CARDONE	1,050	-	No report.
CIELESTE	1,410	-	No report.
DOGANELLA TH.	8,820	4,100	-
FIUME DI MEZZO	1,080	-	No report.
FRATTE TH.	1,400	-	No report.
GAJATRO	1,000	-	No report.
LUCERA TH.	1,080	-	No report.
MATESE 1	10,500	9,600	Insufficient water.
MATESE 2	11,200	-	War damage.
MARMARICO (FERDINANDEA)	1,800	-	No report.
MERCUPE	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.
SUIDO (GARIGLIANO)	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	-
TUSCOLANO 2 (OLEVANO)	9,680	8,150	Insufficient water.
71 SMALL PLANTS	23,503	-	No report.
TOTALS	332,983	191,650	

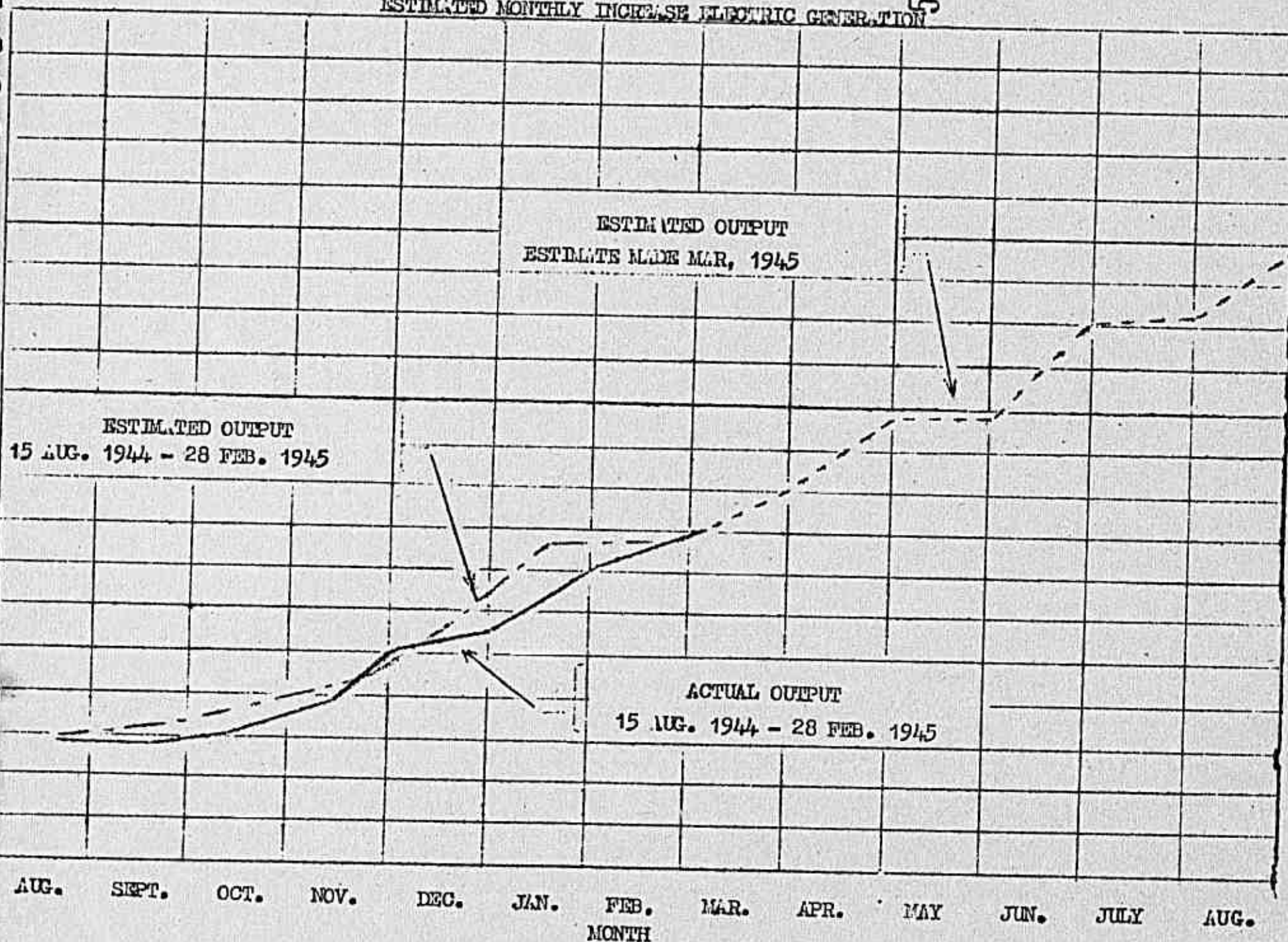
5297

CENTRAL ITALYCHART 2

CENTRAL ITALYCHART 2

ESTIMATED MONTHLY INCREASE ELECTRIC GENERATION

5296



CENTRAL ITALY

PROGRESS OF RESTORATION OF ELECTRIC TRANSMISSION LINES

TOTAL LENGTH

0 10 20 30 40 50 60 70 80 90 100

ACEA

150 kV Galleto - Laurentina
94 Km.150 kV Canterno - Cinecittà
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.

S.R.E. CO.

UNES CO.

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 - Montorio al Vomano 30 Km.	5295
70 KV Papigno - Montorio al Vomano 20 Km.	
230 KV Capannelle - Popoli 66 Km.	

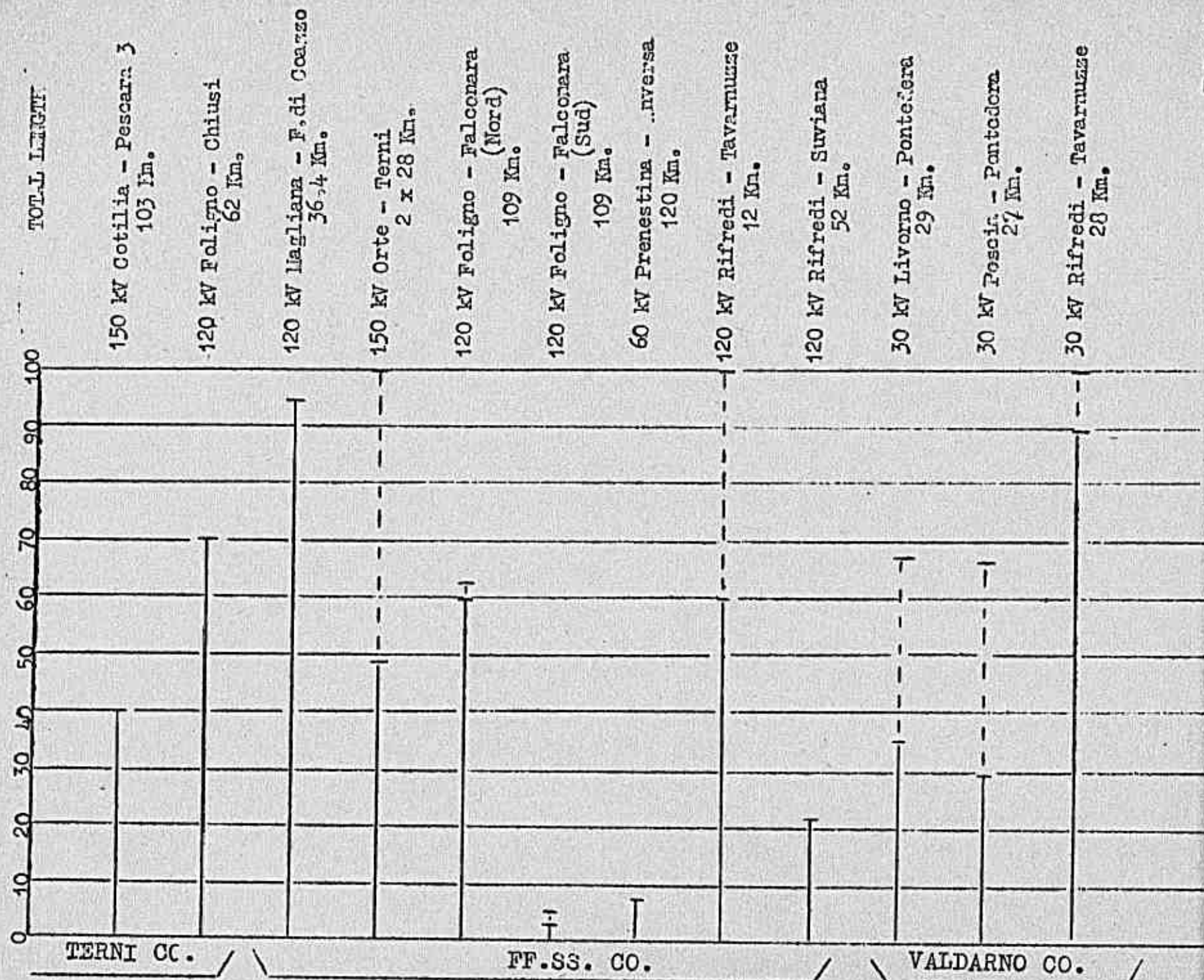
S.R.E. CO.

UNES CO.

TERNI CO.

Note: Broken line shows restoration completed February 1945.

CHART 1 (Continued)



150 kV Orte - Terni 2 x 28 Km.	
120 kV Foligno - Falconara (Nord) 109 Km.	
120 kV Foligno - Falconara (Sud) 109 Km.	
60 kV Prenestina - Anversa 120 Km.	
120 kV Riferdi - Tavaruzze 12 Km.	
120 kV Riferdi - Suviana 52 Km.	
30 kV Livorno - Pontedera 29 Km.	
30 kV Pescia - Pontedera 27 Km.	
30 kV Riferdi - Tavaruzze 28 Km.	

FF.SS. CO.

VALDARNO CO.

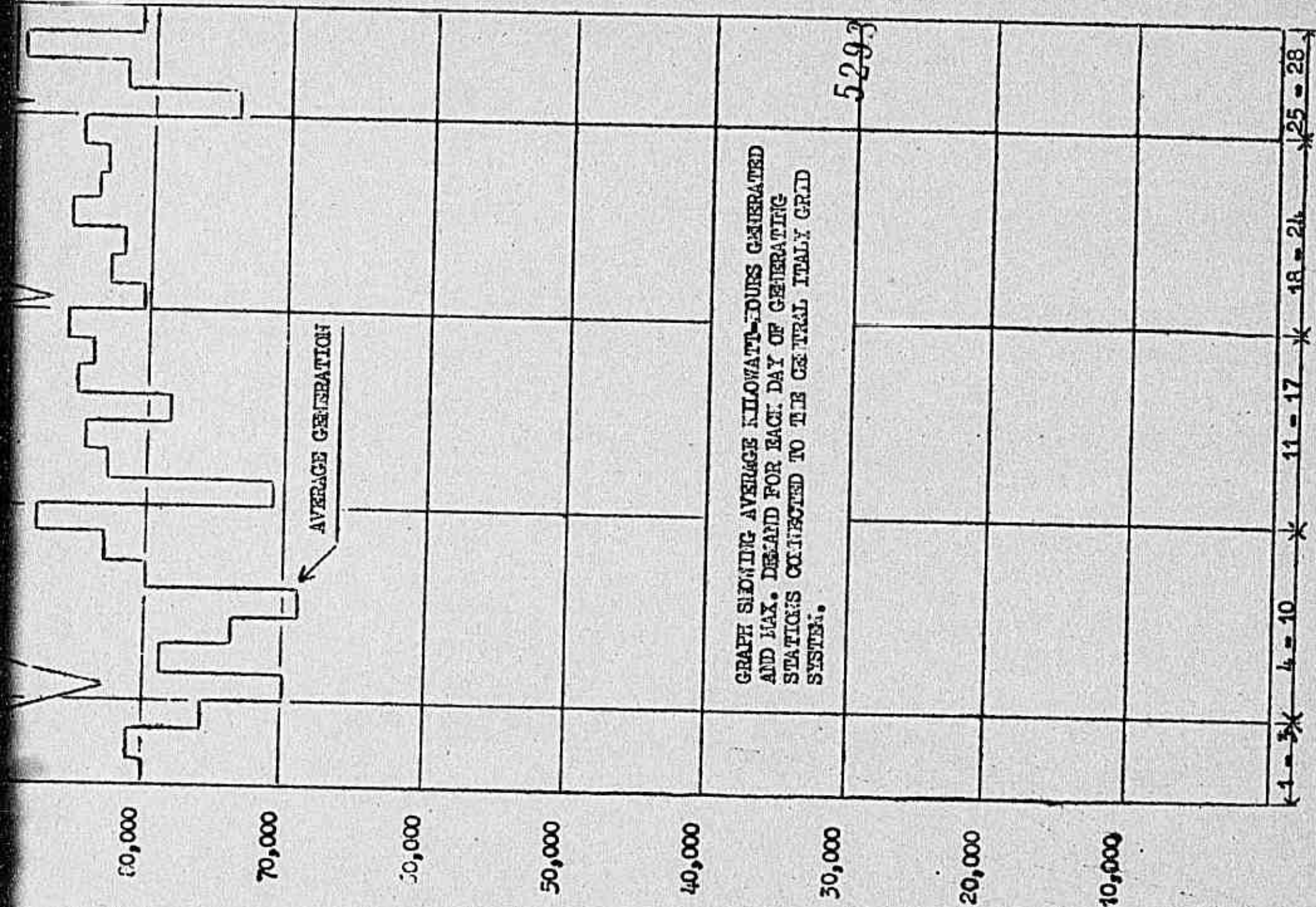
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CENTRAL ITALY POWER GENERATION

CHART III



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



FEBRUARY
- 13 -

100-100

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