

2287

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ACC

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OCT. 194

2288

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ELECTRIC POWER REPORTS
OCT. 1944 - AUG. 1946

2289

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11

g/c mission to see pt

encl 28/10

seen HM 29/10.

4818

2290

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5408

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Tel: 489081
Ext: 303

AC/mtp

HEADQUARTERS ALLIED COMMISSION
APO 794
Industry and Utilities Branch

320/PWU

22 August 1946

SUBJECT : Historical Report
Electrical Division,
Industry & Utilities Branch
(formerly Public Works and Utilities S/C).

AUG 23 1946

TO : Executive Commissioner, H.Q., A.C.

returned to Ex Comm

1. Reference our 320/PWU dated 6 August 1946, and our proposal therein agreed to by the Executive Commissioner, for the distribution of the report as mentioned in above subject.
2. Forwarded herewith for your information is a copy of said report. Following is list of distribution:-

1 copy to Division files
 " " " Chief Commissioner
 " " " Executive Commissioner
 " " " British Embassy, Rome
 " " " American Embassy, Rome
 " " " A.F.H.Q., G - 5
 " " " Italian Ministry of Public Works.

*Report handed
to Ex Comm.
23/8 / G.M./cm*

(see me)

H.M. Walker
 H.M. WALKER
 Colonel, C.E.,
 Director

JA
 23/8

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5408
[initials]

12

2 November 1944

Mr. John L. Goshie
Chief of Secretariat
Advisory Council for Italy
Via Vittorio Veneto, 119
Rome

2 NOV Recd

Forwarded herewith are six copies of "The Electric
Power Situation in Liberated Italy," the report which
will be presented at tomorrow's meeting of the Advisory
Council.

PA
3/11
[initials]

J. A. QUAYLE
Major, R. A.
Staff Officer to A/CC

CofS Section ✓

Delivered by hand at 1130 hrs

4846
3/11
[initials]

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Ref. 459008

VCH/043

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

ACG/051/TWU

16 October 1944

1007 Recd

Subject : Transmitted of Electric Plant Condition
Report, Central Italy.

To : Agencies shown in Distribution List.

27-35

1. Transmitted herewith is a copy of a report prepared
by the Electrical Division of the Public Works and Utilities
Sub-Commission, entitled Electric Plant Condition, 15 October
1944.

E. J. Barry
E. J. BARRY
Major C.E.,
Acting Chief, Elec. Div.

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CE AFHQ
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DA AAI
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CE No. 1 District
CE No. 2 District
CE No. 3 District
C.O. R.A.A.C.
Engineer P.B.S.
Staff Officer, P.B.S. Advances
Electrical Officer, Lazio Region ACC,
Electrical Officer, Abruzzo-Marche
Region ACC.
Electrical Officer, Toscana Region ACC
Allied Force Local Resources Section
R.A.A.C.
DR. MRS.
Economic Section

Agriculture Sub-Commission
Commerce Sub-Commission
Communications Sub-Commission
Industry Sub-Commission
Transportation Sub-Commission
Regional Commissioners:
Abruzzo-Marche Region
Basilicata Region
Lazio Region
Liguria Region
Lombardy Region
Piedmont Region
Toscana Region

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18 October 1944

NOT Recd

Subject : Transmittal of Electric Plant Condition Report, Central Italy.

To : Agencies shown in Distribution List.

27-35

1. Transmitted herewith is a copy of a report prepared by the Electrical Division of the Public Works and Utilities Sub-Commission, entitled Electric Plant Condition, 15 October 1944.

DISTRIBUTION:

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DA AAI
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Electrical Officer, Lazio Region ACC.
Electrical Officer, Abruzzi-Marche Region ACC.
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Allied Forces Local Resources Section.
R.A.A.C.
DC, MRS.
Economic Section

E.J. BAILEY
Major C.E.,
Acting Chief, Elec. Div.

Agriculture Sub-Commission
Commerce Sub-Commission
Communications Sub-Commission
Industry Sub-Commission
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Regional Commissions:
Abruzzi-Marche Region
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ELECTRIC PLANT CONDITION

CENTRAL ITALY

15 OCTOBER 1974

MECHANICAL DIVISION

PUBLIC WORKS AND UTILITIES

SUB-COMMISSION

HEADQUARTERS ALLIED CENTRAL COMMISSION

AFG 394

P O R E W O R D

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

- (a) The constant improved output of the Rome Steam Plants.
- (b) Increased steam flow to the hydro plants.
- (c) The starting of another unit at Cervara.

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

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

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

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TABLE "A"

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

Station	Plant Capacity kw	Normal Output kw	Present Output kw	Reasons for not maintaining normal output
Arvi.....	4,500	4,500	2,500	Low stream flow.
Roma Tivoli...	12,000	39,000	19,000	One 5000 KW diesel under repair, one 40,000 KW steam turbine unavailable (excessive vibration).
Comuniqua.....	8,000	7,000	2,800	Low stream flow.
Scalafelle.....	8,000	6,000	2,800	do
Subiaco.....	7,000	5,500	2,800	One set destroyed - Low stream flow.
Vesta.....	2,400	2,400	2,200	Low stream flow.
10 Little Stations S.A....	1,610	1,610	530	do
Floritella.....	800	700	700	
S. Savino.....	800	700	700	
Treponzo.....	850	500	500	
Vulci.....	3,826	2,500	1,000	Low stream flow.
Trinquara.....	540	300	175	Water shortage and insufficient transformer capacity.
Norm. Montoro...	10,000	7,500	5,000	Low stream flow.
Reggio di Tivoli	300	300	250	do

Total generating capacity operating and connected to Rome grid as of 15 Oct. 1944

40,755

8,000 1st Nov. 40,755
12,000 15th Nov. 52,755
10,000 KW 2nd coal comes in

15,000
7,500
1,000

20,000

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Station	Plant Capacity kw	Normal Output kw	Present Output kw	Reasons for not maintaining normal output
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Arvi.....	4,800	4,200	2,300	Low stream flow
Rio Tumbal.....	42,000	39,000	42,000	One 5000 KW Diesel under repair, and 10,000 KW steam turbine unavailable (excessive vibration).
Camaguey.....	8,600	7,000	2,800	Low stream flow.
Scalorio.....	8,000	6,000	2,800	do
Subisco.....	7,000	3,500	2,600	One set destroyed - Low stream flow.
Vento.....	2,400	2,400	2,200	Low stream flow.
10 Little Station R.A....	1,610	1,610	530	do
Pionitella.....	600	700	700	
San Juan.....	800	700	700	
Trayano.....	850	500	500	
Vicoi.....	3,826	2,500	1,000	Low stream flow.
Burguina.....	340	300	175	Water storage and insufficient transformer capacity.
Mora Montoro....	10,000	7,500	5,000	Low stream flow.
Bayo di Rivoli	300	300	250	do

Total generating capacity generating and connected to Bus as of 15 Oct. 1944

40,755

1st Nov. 48,725
15th Nov 52,325
10,000 KW I.V. coal comes in

20,000
7,500
37,500
37,500
4

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U A D L E " B "

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

Station	Plant Capacity kw	Normal Output kw	Present Output kw	Reasons for not maintaining normal output
2 Small stations E.A.....	180	180	95	Low stream flow.
Barborello and Castelnuovo....	126,000	100,000	6,000	Units damaged.
Altavilla.....	1,105	800	550	Low stream flow.
Bolognola.....	2,750	1,575	650	do
Corvara.....	1,050	700	300	do
Trasimeno.....	4,500	2,250	1,000	do
15 Small plants.	2,160	2,160	1,150	do
Parinella.....	1,050	500	500	Two units destroyed.
Total plants....	1,500	1,500	1,400	Maximum output in present condition.
Terra Stool....	2,400	500	500	One unit destroyed.
Terra Old.....	3,150	150	150	Three units destroyed.
Cervara.....	2,640	8,000	6,400	Units damaged.
Monte Rotondo....	10,000	7,500	7,000	Low stream flow.
Rossiglione.....	12,000	12,000	800	Damaged.

Total generating capacity operating but not connected to Rome Grid as of 15 Oct. 1944

26,495

40,755
67250

4812

2299

785017

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TABLE "C"

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

Station	September 30th		October 15th		Difference	
	Base Grid KW	Non Grid KW	Base Grid KW	Non Grid KW	Base Grid KW	Non Grid KW
Arci.....	2,000		2,300		+ 300	
Reno Thermal.....	10,000		19,000		+ 9,000	
Camacho.....	2,000		2,800		+ 800	
Collole.....	1,500		2,500		+ 1,000	
Subisco.....	2,200		2,800		+ 600	
Vesta.....	2,000		2,200		+ 200	
12 little 54 times						
R.A.....	550	95	550			
Pierrelia.....	700		700			
S. Arvino.....	700		700			
Trapano.....	500		500			
Vidici.....	1,000		1,000			
Larionello.....		6,000		6,000		
Terra Stool.....		500		500		
Terra Cda.....		150		150		
Terra Plate.....		1,400		1,400		
Carvina.....		6,400		6,400		
Non. Martore.....		7,000		7,000		
Altilia.....	4,000		5,000		+ 1,000	
Holomola.....		550		550		
Garnesi.....		650		650		
Pedaso.....		450		300		
10 Small Plants.....		800		1,000		
Terminola.....		600		600		
Terminola.....		500		500		
Rossignuolo.....	175		175			
Bagni Stivald.....	250		250			
5 Small Plants.....		800		800		
				470		+ 470
Net Total KW.....	27,355	22,475	40,755	26,495	+ 13,200	+ 4,020
GRAND TOTAL including Base Grid and non Grid		50,030		67,250		+ 17,220

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TABLE "B"

Recapitulation of Estimated Generating Capacity in kilowatts.

Reason for increase	Oct. 31 kw	Nov. 15 kw	Dec. 15 kw	Jan. 15 kw	Feb. 15 kw	Mar. 15 kw
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Repaired units..... 7,100 11,500 35,600 35,000 10,000 57,950

Transferred units..... - 1,500 3,500 600 - -

Outgoing stream flow... 9,000 12,700 7,000 5,000 10,000 -

Total estimated increase
in generating capacity
over 15 Oct. 1944..... 16,100 41,800 90,900 131,520 131,520 189,470

Generating capacity as
of 15 October 1944.... 67,250 67,250 67,250 67,250 67,250 67,250

Total estimated
generating capacity... 83,350 109,050 158,150 198,770 198,770 256,720

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10000
10000
10000

600

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Required units.....	7,100	41,500	32,600	35,000	10,000	57,950
Transformed units.....	-	1,500	3,500	620	-	-
Changed stream flow...	2,000	12,700	7,000	5,000	10,000	-

Total estimated increases
in generating capacity
over 15 Oct. 1944.....

16,100	41,800	90,900	134,520	151,520	189,470
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Generating capacity as
of 15 October 1944.....

67,250	67,250	67,250	67,250	67,250	67,250
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Total estimated

Generating capacity...	83,350	109,050	158,150	195,770	198,770	256,720
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4809

13 900
1000
1000

600

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TABLE "P"

TRANSMISSION LINES JOINTLY
CENTRAL ITALY
15 October 1944

Company	Operable Kilometers	Under Repair Kilometers	Unrepaired Kilometers	Total Kilometers
<u>230 KV. Transmission Lines</u>				
Total Company (1)....	60	-	102	170
<u>150 KV. Transmission Lines</u>				
Societa' Romana di Elettricita'.....	163	13	23	199
Azienda Comunale Elettricita' Acqua...	-	-	94	94
Total Company.....	62	-	74	136
<u>120 KV. Transmission Lines</u>				
Total Co. 150 KV lines	225	13	191	429
<u>60 KV. Transmission Lines</u>				
Total Co. 120 KV. lines	203	27	206	435
<u>60 KV. Transmission Lines</u>				
Societa' Romana di Elettricita'.....	411	13	329	753
Azienda Comunale Elettricita' Acqua...	138	90	80	308
U.N.E.S.....	410	95	70	575
Total Company.....	97	-	7	104
Societa' Romana di Elettricita'.....	426	-	370	796
Total Co. 60 KV. lines	1,482	198	856	2,536

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

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Company	Operable Kilometers	Regain Kilometers	Unoperable Kilometers	TOTAL Kilometers
<u>230 KV. Transmission Lines</u>				
Total Company (1).....	60	-	102	170
<u>150 KV. Transmission Lines</u>				
Societa' Romana di Elettricit�.....	163	13	23	199
Azienda Comunale Elettricit� Acque....	-	-	94	94
Torino Company.....	62	-	74	136
Total No. 150 KV Lines	225	13	191	429
<u>120 KV. Transmission Lines</u>				
Torino Company.....	203	-	7	210
Sole Valleys.....	-	27	206	233
Total No. 120 KV. Lines	203	27	-	443
<u>60 KV. Transmission Lines</u>				
Societa' Romana di Elettricit�.....	411	13	329	753
Azienda Comunale Elettricit� Acque....	138	90	80	308
U.N.E.C.....	419	95	70	575
Torino Company.....	97	-	7	104
Sole Valleys.....	426	-	370	796
Total No. 60 KV. Lines	1,402	198	856	2,556

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

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TABLE "F" (continued)

Company	Overhead Kilometers	Under Tension Kilometers	Damaged and Unrepaired Kilometers	TOTAL Kilometers
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30 KV. Transmission Lines

Sociedad Mexicana de Electricidad.....	334	7	-	338
Asiatica Guatemalteca Electricidad, A.G.....	95	25	18	138
U.N.E.S.	697	163	226	1,091
Torres Company.....	20	-	-	20
Salt Valhorno.....	259	79	450	788

Total No. 30 KV. Lines 1,402 279 694 2,375

GRAND TOTAL KILOMETERS 3,380 517 2,056 5,953

Percentage..... 56.3% 8.7% 34.5%

1807

