

ACC CEB/1/4

10000/150/707

AVAILABI
APR. - JU

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AVAILABILITY OF POWER
APR. - JULY 1944

Availability of Power

CEB/1/4

Availability of Power

1903
PAPERWORK OF POWER

10000

150

707

THIS FOLDER
CONTAINS PAPERS
FROM APRIL 1944
TO JULY 1944
CATALOGUE.

Foxhole 125
Capt Boger }
Capt McKenzie }
K. DW.

H.Q. A.A.I.
LOCAL RESOURCES SECTION
G.M.F.

(15)

REF:- 17/22/LR.

25 JUL 1944

14

21 JULY 44.

TO :- ORD (BR),
HQ AAI. (attn. - Major Burgess)

SUBJECT:- Oxygen Supply.

(15A)

1. Attached hereto copy of letter 2140/3870/Eng dated 17 JULY 44 received from HQ 214 Op RAF regarding oxygen supply for consideration at the Industrial Gases Sub-Committee.

*OK For power supply at
Foggia*

for Lieut. Colonel,
A.Q.M.G.,
Local Resources Section.

SJBL/lw

COPY TO:

DW, HQ AAI.

718

Chairman, Central Electrical Board.

COPY

(15A)

From : Headquarters, No. 214 Group, R.A.F., C.M.F.
 To : The Secretary, Industrial Gases Sub-Committee,
 Allied Forces Local Resources Board.
 Date : 17 July 1944.
 Ref : 214G/3870/Eng.

OXYGEN SUPPLY - FOGGIA AREA

The most acute shortage of oxygen so far as the R.A.F. is concerned exists in the Foggia area. All our mobile plants are required to accompany mobile formations, and this leaves the heavy bomber formations in Foggia without a nearer source of supply than Taranto.

2. Due to the shortage of transit cylinders we can ill afford a line of supply of this length, while our requirements in the Heel itself are alone sufficient to absorb all the Taranto supplies allocated to the R.A.F.
3. It is understood that the U.S.A.A.F. also has its greatest demand in the Foggia Area.
4. It is therefore suggested that a source of static oxygen supply be established in Foggia.
5. It is known that one plant at Termi is lying dismantled in a cave, this being adjacent to the Papigno plant and a duplicate of it. It is believed that this would have an output of over 2,000,000 cubic feet per month and would require 1,000 k.w. of electric power.
6. It is also understood that a plant belonging to the Montecatini Company, is lying amongst other equipment dismantled by the Germans in some railway trucks between Tarquinia and Ortebello. This is reputed to have a capacity of 700,000 cubic feet per month and would require some 250 k.w. of electric power.
7. The writer has spoken to Colonel Smith (D.D.W. - A.A.I.) concerning the supply of electric power and has been informed that a request for the quantity of power involved would be more favourably received in respect of the Foggia area than the area North of Rome, and though it presents some problems is technically possible.

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8. It is therefore requested that the proposal to transfer one or both of these dismantled oxygen plants to Foggia be tabled for discussion at the next meeting of the Industrial Gases Sub-Committee.

9. Should this proposal meet with favour, the R.A.F. would like to bid for the full output of the smaller of the two plants referred to above, and would be prepared to supervise its operation.

A.F. BRITTON, G/Capt.
for Air Commodore,
Air Officer Commanding,
No. 214 Group, R.A.F.

Copy to:

A.A.F.S./H.T.O. (Attn: Gen. Forum)
H.Q., M.A.A.F. (Rear).

6
LOCAL RESOURCES SECTION
H.Q. A.A.I.
C.M.F.

R 0 July
JCR/lw (114)

15 JULY 44

In reply refer to
17/10/LR.

SUBJECT : Paper production.

TO : CENTRAL ELECTRICAL BOARD
(attention : Colonel GROWDEN)

1. Confirming telephone conversation Colonel Growden -
Captain Loudon, attached please find copy of letter which refers
to Turbines and Generators about which Captain Loudon spoke to you
on the telephone.

7182

John B. Parnell
Lieut. Colonel,
A.Q.M.G.,
Local Resources Section.

A.A.I.
CENTRAL ELECTRICAL BOARD
HQ, AAI CMF

REF: CEB/1/4

18 July 44.

SUBJECT:- Peak Load Figures, S.M.E.

TO:- DW HQ AAI.

1. Herewith Peak Load and Energy figures for June 1944.
2. Arrangements have been made for these figures to be furnished monthly in the future, but delay in delivery must be anticipated.

JAMES P. CROWDON,
COLONEL CE,
Vice Chairman, AAI - C.E.B.

7182

A.A.I.
CENTRAL ELECTRICAL BOARD
APO 400

REF: CEB/1/4

6 June 44.

SUBJECT: - Energy Returns

TO: - DW HQ AAI OMF

1. Herewith list showing peak loads and energy supplies for the month of May 1944.

JAMES P. GROWDON,
COLONEL CE,
Vice Chairman, AAI - C.E.B.

7180

PEAK LOAD AND ENERGY SUPPLIES

COMPANY		previous month		current month							
		April		1 st W.		2 nd W.		3 rd W.		4 th W.	
		kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶
S.M.E.	(1)	28,3	12,670	26,4	2,799	25,5	2,831	25,7	2,805	25,8	2,862
S.E.D.A.C.	(2)	-	8,320	-	1,961	-	2,025	-	1,857	-	2,123
S.G.P.E.	(3)	52,0	21,108	48,0	4,788	49,0	4,728	49,0	4,848	48,0	4,758
IUCANA	(4)	-	1,250	-	0,269	-	0,254	-	0,258	-	0,269
S.E.C.	(5)	3,8	1,083	3,0	0,232	3,5	0,231	-	0,213	-	0,212
State Railways (Feroleto)	(6)	-	0,863	-	0,207	-	0,271	-	0,216	-	0,338

(1) on 9 and 30 kV Naples (DN + EAV)

(2) mixed

(3) by the power plant Timpagrande

(4) by the power plant Tanagro

(5) on the watt-hour meters by our Subs:

(6) by S. R. Subs:

Naples 6 / 6 / 1944

LI/AF.

PEAK LOAD AND ENERGY SUPPLIES

previous month

current month

April

	1 st W.		2 nd W.		3 rd W.		4 th W.		5 th W.		total	
	kWhx10 ⁶	kWhx10 ³	kWhx10 ⁶	kWhx10 ³	kWhx10 ⁶	kWhx10 ³	kWhx10 ⁶	kWhx10 ³	kWhx10 ⁶	kWhx10 ³	kWhx10 ⁶	kWhx10 ⁶
12,670	26,4	2,799	25,5	2,831	25,7	2,805	25,8	2,862	25,8	1,703	25,8	13,000.
8,320	-	1,961	-	2,025	-	1,857	-	2,123	-	0,973	-	8,939.
21,108	48,0	4,788	49,0	4,728	49,0	4,848	48,0	4,758	47,0	2,094	49,0	21,216
1,250	-	0,269	-	0,254	-	0,258	-	0,269	-	0,126	-	1,176
1,083	3,0	0,232	3,5	0,231	-	0,213	-	0,212	-	0,095	-	0,983
0,863	-	0,207	-	0,271	-	0,216	-	0,338	-	0,170	-	1,202

Naples (DN + EAV)

Ant Timpagrande

Ant Tanagro

meters by onr Subs:

6 / 6 / 1944

*Copy for
El Graciosa*

Rate required by Capt. Roger C.E.

(4)

DATA REQUIRED

S.M.E. - Total System

Date	Kw
1 May	100.850
2 "	100.000
3 "	98.350
4 "	98.360
5 "	98.760
6 "	100.700
7 "	84.800
8 "	97.350

Calabria Co

Date	Kwh - minus Reggio	Estimated Reggio Cons.	Total
1 May-7 May	232.530	50.000	282.530

Lucana Co

Date	Kwh	Kw
1 May-7 May	269.079	3.750

7178

At 21 o'clock of the 1st May

A.A.I.
CENTRAL ELECTRICAL BOARD
APO 400

RET: CEB/1/4

10 May 1944

SUBJECT:- Electricity Returns

TO:- DW HQ AAI CMF

1. Herewith further copy of return for the month of April 44 showing peak load and energy supplied to the various Electricity Companies, which was forwarded to you under letter of even reference on 4 May 1944.

JAMES P. CROWDON,
COLONEL CE,
Vice Chairman, AAI - C.E.B.

7177

A.A.I.
CENTRAL ELECTRICAL BOARD
APO 400

REF: CEB/1/4

4 May 1944

SUBJECT:- Electricity Returns

TO:- DDW HQ AAI CMT

1. Herewith return for the month of April 1944 showing Peak load and energy supplied to the various Electricity Companies of occupied Italy.

JAMES F. CROWDON,
COLONEL CE,
Vice Chairman, AAI -C.E.B.

717

PEAK LOAD AND ENERGY SUPPLIES

COMPANY	previous month (March 1944)				current month (April 1944)					
			1 st w.		2 nd w.		3 rd w.		4 th w.	
	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶
S.M.E. DN.. (1)	29,6	15,250	26,1	0,907	26,3	3,108	24,8	2,812	28,3	2,911
S.E.D.A.C. (2)	-	8,116	-	0,524	-	2,066	-	1,925	-	2,041
S.G.P.E. (3)	51,0	23,194	48,0	1,452	52,0	5,082	49,0	4,724	49,0	4,786
LUCANA (4)	-	1,982	4,9	0,087	4,1	0,326	3,5	0,267	3,8	0,274
S.E.C. (5)	-	1,554	-	0,090	-	0,314	-	0,273	-	0,267
State Railways (Feroleto) (6)	-	1,078	-	0,045	-	0,183	-	0,171	-	0,198

- (1) on 9 and 30 kV Naples (DN + EAV)
 (2) mixed
 (3) by the power plant Timpagrande
 (4) by the power plant Tonnare
 (5) on the watt-hour meters by our Subs:
 (6) by S. R. Subs:

Naples, 4 / 5 / 1944

LI/AF-

PEAK LOAD AND ENERGY SUPPLIES

previous month

(March 1944)

current month

(April 1944)

1st W.2nd W.3rd W.4th W.5th W.

total

kwx10 ³	kWhx10 ⁶	kwx10 ³	kWhx10 ⁶	kwx10 ³	kWhx10 ⁶	kwx10 ³	kWhx10 ⁶	kwx10 ³	kWhx10 ⁶	kwx10 ³	kWhx10 ⁶	kwx10 ³	kWhx10 ⁶
29,6	15,250	26,1	0,907	26,3	3,108	24,8	2,812	28,3	2,916	28,0	2,927	28,3	12,670
-	8,116	-	0,524	-	2,066	-	1,925	-	2,047	-	2,052	-	8,614
51,0	23,194	48,0	1,452	52,0	5,082	49,0	4,724	49,0	4,788	49,0	4,944	52,0	20,990
-	1,982	4,9	0,087	4,1	0,326	3,5	0,267	3,8	0,274	4,0	0,286	4,9	1,240
-	1,554	-	0,090	-	0,314	-	0,273	-	0,267	-	0,233	-	1,177
-	1,078	-	0,045	-	0,183	-	0,171	-	0,198	-	0,266	-	0,863

30 kV Naples (DN + EAV)

plant Timpangrande

plant Tanagro

hour meters by our Subs:

subs:

4 / 5 / 1944

Operating Generator Capacity

Matese I.	KW 5500	
Tusciano	" 7800	
Tanagro.	" 11300.	
Orichella	" 33000	Ampo I
Timpa.	" 65000	Ampo. II
Calusia	" 17000.	Ampo III
Capriano St.p.	" 15000.	
	<u>154600</u>	Total.

TOTAL GENERATING CAPACITY 154 600 KW

PEAK LOAD AND ENERGY SUPPLIES

COMPANY		previous month (February 1944)				current month (March 1944)					
				1 st W.		2 nd W.		3 th W.		4 th W.	
		kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶
S.M.E.	(1)	29,1	14,166	28,5	2,558	29,2	3,458	27,3	3,379	29,6	3,348
S.E.D.A.C.	(2)	-	7,012	-	1,457	-	1,815	-	1,874	-	1,717
S.G.P.E.	(3)	52,0	23,129	46,0	4,030	50,0	4,944	45,0	4,956	46,5	5,196
IUCANA	(4)	-	2,127	-	0,323	-	0,436	-	0,457	-	0,436
S.E.C.	(5)	-	1,882	-	0,266	-	0,373	-	0,395	-	0,362
State Railwys (Ferolate)	(6)	-	0,600	-	0,184	-	0,184	-	0,236	-	0,246

(1) on 9 and 30 kV Naples (DN + BAV)

(2) mixed

(3) by the power plant Timpagrande

(4) by the power plant Tanagre

(5) on the watt-hour meters by enr Subs:

(6) by S. R. Subs:

Naples 15/4/1944

LI/AF.

TOTAL GENERATING CAPACITY 154 600 KW.

PEAK LOAD AND ENERGY SUPPLIES

previous month
(February 1944)

current month
(March 1944)

		1 st W.		2 nd W.		3 th W.		4 th W.		5 th W.		total	
kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶	kWx10 ³	kWhx10 ⁶
29,1	14,166	28,5	2,558	29,2	3,458	27,3	3,379	29,6	3,348	28,9	2,506	29,6	15,250 ¹⁵²⁴⁹
-	7,012	-	1,457	-	1,815	-	1,874	-	1,717	-	1,253	-	8,116 ✓
52,0	23,129	46,0	4,030	50,0	4,944	45,0	4,956	46,5	5,196	51,0	4,068	51,0	23,194 ✓
-	2,127	-	0,323	-	0,436	-	0,457	-	0,436	-	0,316	-	1,982 ¹⁹⁶⁵
-	1,882	-	0,266	-	0,373	-	0,395	-	0,362	-	0,217	-	1,554 ¹⁵¹³
-	0,600	-	0,184	-	0,184	-	0,236	-	0,246	-	0,232	-	1,078 ¹⁰⁸²

30 kV Naples (DN + BAV)

over plant Timpagrande

over plant Tanagre

att-hour meters by enr Subs:

Subs:

Naples 15/4/1944

SOCIETÀ MERIDIONALE DI ELETTRICITÀ

Memorandum for Col. GROWDON

3

Allotment of Electric Power

- 1) - We shall first control our last estimate of Demand and Output (16th of March).

Estimated data	Real data
Demand 65 mil Kwh	60,8 mil Kwh
Peak load 122 MW (50% frequency)	113 MW
Steam plants output 2 mil Kwh	1,25 mil Kwh
Storage of Sila Res. on the 31 st of March 154,2 mil Kwh	153,1 " "
Storage of Matese Res. on the 31 st of March 9,3 mil Kwh	9,5 " "

It results:

Storage in the reservoirs have been practically the estimated ones, the real demand has been inferior to the estimated on account of courtailing, but also the disponibility on hydro-plants has been slightly inferior to the average (for the cold only small quantities of snow melted).

- 2) - Allotment of Electric Power must be necessarily revised every 1-2 months. The following proposals are then made for April and May.

Disponibility of Power

In april and May Tusciano and Tanagro will give about full load (17 MW). Matese will give power only at peak load (5 MW) and will remain in the other hours for the supply of synchronous load. Timpa transformers could be loaded until about 90 MW. As for the steam plants we have assu-

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SOCIETA MERIDIONALE DI ELETTRICITA

2)

med a supply of 3 MW during peak load. In total for the 150 kV and interconnected systems we should have a disponibility of $17 + 5 + 90 + 3 = 115$ MW.

Disponibility in Energy

In our last estimate of Demand and Output demands of April and May were assumed to be 60 and 61 mil Kwh. But an increase to 65 will still leave sufficient margin of safety on the value of minimum content of reservoirs. On this base and with the last load factors of the various districts we have prepared the annexed table for April and May. We shall point out:

For Railways of Naples area, Foggia-Benevento, Salerno-Torre we have assumed data of the last week.

For the Caserta Loop we have supposed that supply will begin after May. In every case, also if it were started before, the demand in energy of 1-2 weeks would not change in remarkable manner our figures.

Demand in power of Railways are lower then required values (Foggia Benevento 6 MW, Benevento Caserta 4 MW, Caserta Loop 5.000, Naples Salerno 4 MW, Total 19 MW). From the examination of charts of the kW meter of Foggia and from other data it results also that there is a remarkable diversity factor between Railways loads and other loads. On account of that we do not presume that real total load will reach 19 MW and this value will occur at same time of peak load.

According with the above considerations we estimate that peak load in the plants will be about 110 - 112 MW for the 150 KV and interconnected systems. The total peak load (in the plants) will not exceed 122-124 MW.

7172 ✓

SOCIETA MERIDIONALE DI ELETTRICITA

3)

According to the present trend, the demand in energy for the month of April would not exceed 58 mil kwh. With the proposals of the annex demand would increase to about 65 for the whole month. It must therefore be observed that in every case the new allotments will be really permitted not before the 20th of April so that demand will not exceed 59-60 mil Kwh for April and only on May will reach 65 mil.

Naples, the 8th April 1944

TM/ep

717

SOCIETA MERIDIONALE DI ELETTRICITA

REVISED ALLOTTMENT OF ELECTRIC POWER

150 kV and interconnected systems	Responsibility of	Max m permitted for April and May	
		kW x 10 ³	kWh x 10 ⁶
Apulia Co.	2 Dist	38,00	19,4
Naples dist	P.B.S.	29,00	16,00
Campania Co.:			
(i) Pomigliano	3 Dist	3,00	1,25
(ii) Salerno-Torre-Cast.	3 Dist	13,00	7,00
(iii) S.Maria	P.B.S.	5,5	2,1
(iiii) Benevento	3 Dist	1,75	1,00
(iiiii) Calore	3 Dist	1,25	0,60
Lucana Co.	2 Dist	5,00	2,00
Total in the Districts		96,50	49,35
Total in the plants		106,00 MW	57,4 mil kWh.
Calabria 60 kV system:			
Calabria Co. & Savuto plant	2 Dist (ACC)	9,00	2,50
Railways:			
^ Naples Area	DGMRS	1,00	0,70
^ Foggia-Benevento	"	4,00	1,30
^ Salerno-Torre	"	2,00	1,00
Calabria	"	3,00	1,50
Grand total in the Districts		10,00	56,35
Grand total in the plants		123,00 MW	65 mil kWh

^ These Railways Sub.ons are fed by the 150 kV and interconnected systems.

Naples, the 8th April 1944
TM/ep

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