

ACC 211/PWU

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(VOL. V)

NORTHERN ITA
ADVISORY COMM
(NORTHERN ITA
JULY - NOV. 1945

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NORTHERN ITALY ELECTRICITY SCHEME
ADVISORY COMMITTEE ON ELECTRIC POWER
(NORTHERN ITALY)
JULY - NOV. 1945; (JAN. 1946)

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NORTHERN ITALY ELECTRICITY SCHEME

ADVISORY COMMITTEE ON ELECTRIC POWER
(NORTHERN ITALY)

Vol. II

Opened 19 July 45

Closed 17 January 46

10000

150/585

THIS FOLDER

CONTAINS PAPERS

ADVISORY COMMITTEE ON ELECTRIC POWER

(NORTHERN ITALY)

Vol II

Opened 19 July 45

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THIS FOLDER
CONTAINS PAPERS
FROM *JULY 45*
TO *NOV. 45*
CATALOGUE

~~LE-CON-G-F-PARNER~~

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NORTHERN ITALY ELECTRICITY SCHEME

Advisory Committee on Electric Power
(Northern Italy)MINUTES

The sixth meeting of the Advisory Committee on Electric Power (Northern Italy) was held in the offices of Edison Co. Milan, at 0930 hrs on January 17, 1946.

Present:

Dr. Eng. F. Benedetto
 Prof. Eng. A. Asta
 Dr. Eng. R. Marin
 Dr. Eng. A. Salari
 Dr. Eng. G. Dezza
 Dr. Eng. G. Merla
 Dr. Eng. A. Berni
 Dr. Eng. C. Genesio
 Dr. Eng. Giordana
 Dr. Eng. L. Maggi
 Col. G. F. Parker
 Maj. J. W. Cook
 Maj. A. G. I. Davey
 Maj. C. W. S. Jackson
 Maj. A. Haban
 Dr. Eng. P. Facconi
 Dr. Eng. R. Interlenghi

- Acting Chairman
 - Vice Chairman
 - Member
 " "
 " "
 " "
 " "
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 " "
 - Acting Secretary
 - in attendance
 " "
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33) - Minutes of the fifth meeting of the Committee, held on December 20, 1945

The minutes were received.

34) - To review progress of repairs to generating plants and transmission systems.

Eng. Benedetto, Acting Chairman, reported that all repair works are being held by the shortage of raw material, specially copper.

Prof. Asta informed the Committee

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Present:

Dr. Eng. F. Benedetto	-	Acting Chairman
Prof. Eng. A. Asta	-	Vice Chairman
Dr. Eng. R. Marin	-	Member
Dr. Eng. A. Salari	-	"
Dr. Eng. G. Dezza	-	"
Dr. Eng. G. Merla	-	"
Dr. Eng. A. Berni	-	"
Dr. Eng. C. Genasio	-	"
Dr. Eng. Giordana	-	"
Dr. Eng. L. Maggi	-	Acting Secretary
Col. G. F. Parker	-	in attendance
Maj. J. W. Cook	-	"
Maj. A. G. I. Davey	-	"
Maj. C. W. S. Jackson	-	"
Maj. A. Haban	-	"
Dr. Eng. P. Facconi	-	"
Dr. Eng. R. Interlenghi	-	"

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Prof. Asta informed the Committee that, out of 3,000 tons of copper made available from U.S.A., only 650 were allocated to the power companies with the understanding that a larger amount would be granted out of the future deliveries from the States.

Col. Parker advised the Committee to set up a general scheme for new construction in the next five years. The Committee agreed and it was stated that future developments consider an increase of 2 billions KWH generation per year.

35) - Availability of power and programme of operation for the remaining winter months.

a) Additional costs of steam generated electric power

Eng. Benedetto (Edison Co.) reported that an agreement had been met with the Military Authorities during December and a decree passed in connection with the surcharge on the electricity rates to compensate for fuel costs.

b) Steam generation

Following steam plants have been authorized for operation: Marghera, Turbigo, Lesto S. Giovanni, Cairo, Concenter, and AEM-Turin and AEM-Milan stations.

The Companies' representatives reported on the operation of their steam plants: it was shown that the present consumption of coal is from 0.7 to 1.0 kilos per KWH generated.

The coal allocation for February is 38,000 tons (January 40,000). The coal supply is still irregular and some delay experienced; necessary arrangements are being made by the responsible authority.

Eng. Benedetto (Edison) reported that the steam plant at Genova is now reactivated but still short of fuel. 1,500 tons of coal are needed for testing.

It was reported that some private factories are offering to put their steam plants into operation, if supplied with a certain amount of fuel.

The Committee agreed to accept the offer made by Cartiera di Burgo (50,000 KWH per day) which was only requesting 0.45 kilos of coal per KWH from the power companies.

c) Results obtained on power rationing

Eng. Salari (SIP): 13% reduction of energy and 2 1/2% of demand reported on the SIP system; 50,000 KWH to AEM Milan and 200,000 KWH to Edison are now supplied daily.

Eng. Marin (SADE): 15% reduction of energy reported.

Eng. Dezza (Falck): Falck is now supplying AEM-Milan drawing water from the reservoirs.

Eng. Berni (Montecatini): power production reduced by 30% as compared with November.

Eng. Interlenghi (AEM-Milan): disconnection of feeders had been made since before the rationing decrees.

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Eng. Interlenghi (ATI-Milan): disconnection of feeders had been made since before the rationing decree. 505%

Eng. Giordana (ATI-Turin): 20% reduction of energy; 30% of demand were reported.

Eng. Genesio (CIMEI): 10% relief observed after the rationing was applied.

Eng. Benedetto (EDISON): 12--14% reduction of energy reported; frequency and voltage have been reduced to decrease the demand. The Committee recommended that any possible effort be made by the power companies in order to recover from the high consumption of energy during the past months. It was also agreed that the sub-distributing companies are to be subjected to the same curtailment as any other customer.

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d) Availability of power

It was reported that the shortage of power until April 30, 1946, as compared with the estimated requirement has an average value of 18% (SIP 11%); Adriatica 12%; Falck 15%; Edison 17%; AEM Turin 20%; AEM Milan 57%.) The estimated steam generation is 150 millions KWH (140 still to be produced).

e) Curtailment scheme and further measures to be adopted

Following measures were taken in order to further increase the present curtailment:

- 1) Reduction of public service consumption
- 2) Further curtailment of power supply for industrial and private customers (from 23-30% to 35-40%).
- 3) Periods of rest for industrial customers.
- 4) Disconnection of power supply from 0700 to 1700 hrs. for three (instead of two) consecutive days every week.

The Committee agreed that Eng. Benedetto report to the responsible authorities on the results obtained by means of curtailment measures.

36) - Interchange of power between Northern Italy regions and between Northern and Central Italy.

It was agreed that Adriatica and SIP Companies will raise their supply to Edison from 275 to 600 and from 150 to 350 millions KWHrs respectively.

Eng. Asta reported on the electricity situation in Central Italy; assistance will probably still be needed from Northern Italy during the next months. The Committee recommended that Eng. Asta discuss with the Central Italy Companies the possibility of reducing the power supply from the North.

37) - Standardization of frequency and voltage

Eng. Asta reported on the frequency standardization in Central and Southern Italy, advising the Companies' representatives to set up their plans in order to discuss the same problem in Northern Italy, in due time. He suggested that this problem be studied along with voltage standardization.

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Reports were received from the Ministry of Public Works on the proposed decrees concerning voltage and frequency standardization.

38) - Any other business

There was no other business.

39) - Date and time of the next meeting.

Next meeting will be held in the offices of Edison Co. Milan at 0930 on Thursday, February 7, 1946.

Dr. Eng. F. Barluzzi
Secretary to the Committee

MILANO

5 November 945

ELECTRICAL MEETING

(chairman)	Prof. Visentini	Ital. Ministry
	Prof. Asta	" "
	Maj. Wilcox	P.W.&U. S/C.
	Ing. Cipriani	" "
	Maj. Jackson	2nd D.
	Capt. Burns	110 CRE
	Ing. Benedetto	Edison Co.
	Ing. Interlenghi	A.E.M. Milano
	Ing. Chierichetti	" "
	Ing. Castellani	Montecatini
	Ing. Berni	"
	Ing. Merla	Hydrographic Service

1. Prof. Visentini called the meeting to discuss the present electrical situation in Lombardina so that existing conditions could be presented at the advisory committee meeting on 15 Nov. 1945.

2. Eng. Benedetto explained that the Edison Co. would have been confronted with a deficit of 120 million KWh even if all reservoirs had been full on the first of November. At the present date storage capacity showed an additional 160 Million KWh storage or a total winter shortage for the Edison Co. of 280 million KWh. This estimate is made with the assumption that two hour periods of gas will be available for cooking purposes. He did not consider the deficit in KWh as important as the deficit in installed capacity. The effective installed capacity of Northern Italy is approximately 3,5 million KWh of which only approximately 60 per cent. is available to supply power during the winter months. He believes that there is a deficit in North Italy of approximately 200,000 KW which would be needed to maintain existing contracts with Valdarno and provide standard voltage and frequency.

Information about lines and plants included the following :
 the penstock of the Cinigo plant (5,500 KW) is damaged, 60 Km. of copper are needed to repair the Mori-Goito 150 KV line, 15 Km. of copper are needed to repair the Castelnuovo Scrivia-Arquate Scrivia 130 KV line to Genoa. Bussolengo and Chievo plants can be started in operation after peak flow of the Adige river is passed, probably late in November. Normal winter flow of water is 50 cubic meters in canal which is about one-half of full output. It is expected to start this winter with 10 cubic meters which will be increased to 25 cubic meters by the end of December and will generate

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approximately one-fourth full power. At that time the 150 KV line Mori-Goito should be completed.

3. Eng. Castellani explained that Montecatini Co. would have an excess of power that could be put at Edison Co. disposal. 20 million KWh in November and 5 million KWh in the first ten days of December are expected to be surplus. Factory production can be reduced if necessary to eliminate any deficit of power later on. He states that it is possible that Falck might be short of power.

4. Eng. Interlunghi explained that the A.E.M. Milano now had 50 million KWh in storage, last year at this date the figure was 76 million KWh. Present daily production is 300,000 KWh from storage and 600,000 KWh run of stream. Present daily load is 1,900,000 KWh of which one million KWh are purchased from Edison Co. He estimates a shortage of 150 million KWh for the winter. Municipal services including street lights, street cars, and water pumping are normally 400,000 KWh daily but at present rate are only 275,000 KWh daily. One plant of 50,000 KW capacity operates entirely from storage. He explained that a serious shortage in capacity would exist if this reservoir were allowed to run dry as the present capacity of 130,000 KW would be reduced to 80,000 KW.

5. Prof. Visentini suggested that Edison Co. help the A.E.M. Milano (no contracts exist between these Companies) during the next few days so that reservoir conditions would not be any worse on 15 Nov. when the Advisory Committee would meet. After that date it is expected that conditions would be fixed as no more water could be expected in the reservoirs due to cold weather. Plans for rationing or curtailment of power would be presented at that time.



Distribution :
 ✓ Lt. Col. Parker
 Maj. Jackson
 Capt. Burns
 File

C.S. Wilcox
 C.S. WILCOX
 Major Ord.
 Chief Milan Office
 P.W.&U. S/C. Elec. Div.

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NORTHERN ITALY ELECTRICAL SCHEME

30 October 1945

ADVISORY COMMITTEE ON ELECTRIC POWER
(Northern Italy)-----

The fourth meeting of the Advisory Committee on Electric Power (Northern Italy) will be held at 9.30 hours on Thursday 15th November 1945 in the offices of Società Edison - Foro Bonaparte - Milano.

AGENDA

- 1) - Minutes of the third meeting of the Committee, held on October 4, 1945.
- 2° - Reports on war damages and rehabilitation works and programs.
- 3) - To review progress of repairs of generating plants and transmission systems.
- 4) - Operations program and availability of power for the months of November and December 1945.
- 5) - Power exchange between Northern and Central Italy.
- 6) - Any other business.
- 7) - Date and time of the next meeting.

Dr. Eng. F. BARIOLZI
Secretary to the Committee.

F. B. B.

Distribution:

Lt.Col.	G.F. Parker	- Chief of the Electrical Division - A.G.HQ. Public Works sub-Commission.
Dr. Ing.	F. Benedetto	- Soc. Edison, Foro Bonaparte, 31 - <u>Milano</u> -
Prof. Ing.	A. Asta	- Ministero LL.PP. - <u>Roma</u> -
Dr. Ing.	L. Emanueli	- Soc. Pirelli, Via Fabio Filzi, 21 - <u>Milano</u> -
Dr. Ing.	L. Selmo	- S.I.P., Via Bertola, 40 - <u>Torino</u> -
Dr. Ing.	A. Rossi	- Soc. Adriatica di Elettrotecnica S. Toma, Palazzo Barbi, - <u>Venezia</u> -
Dr. Ing.	M. Brunetti	- A2E.M., Via Bertola 48 - <u>Torino</u> -
Dr. Ing.	G. Morla	- Servizio Idrografico del Po Via Vincenzo Monti, 25 - <u>Milano</u> -
Dr. Ing.	G. Dezza	- Acciaierie Falck, Corso Matteotti, 6 - <u>Milano</u> -
Dr. Ing.	C. Castellani	- Soc. Montecatini, Via Albania, 18 - <u>Milano</u> -
Dr. Ing.		- Azienda Elettrica Municipale di <u>Milano</u>

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NORTHERN ITALY ELECTRICITY SCHEME

Telephone
Home 489081 - Ext 317

6 October 1945

ADVISORY COMMITTEE ON ELECTRIC POWER (NORTHERN ITALY)

MINUTES

The third meeting of the Advisory Committee on Electric Power (North Italy) was held in the offices of Edison Co. - Milan - at 10,000 hrs. on Thursday October 4th, 1945.

Present:

Mr. Eng.	F. Benedetto	- Acting Chairman
Prof. Eng.	A. Asta	- Vice Chairman
Mr. Eng.	H. Larin	- Member
Dr. Eng.	A. Ciunetti	- "
Dr. Eng.	E. Solari	- represen. Dr. Eng. Selio
Mr. Eng.	G. Dezza	- Member
Mr. Eng.	G. Merla	- "
Dr. Eng.	Berni	- represen. Dr. Eng. Castellani
Mr. Eng.	F. Barluzzi	- Secretary
Mr. Col.	G. F. Parker	- In attendance
Major	C. S. Wilcox	- "
Mr. Eng.	P. Facconi	- "
Dr. Eng.	Genesio	- "
Mr. Eng.	Calerichetti	- "

13) - Minutes of the last meeting, held on August 30, 1945

The minutes were received.

Pag. 3 - Eng. Lezza's report should read, daily consumption 544;
Falck Co. furnaces is now 120,000 KWH.

Pag. 4 - Eng. Genesio's report should read, repairs of Levera and
Airole stations will require a long time.

14) - Report on war damage to electric systems and on repair work
already carried out.

Reports will be submitted according to
of Public Works.

Reference Min. 7) A.C. is following the matter of insulating oil availability.

Eng. Benedetto (Edison CO.) reported that Sonico station is now in operation; only one transformer is still to be repaired. One penstock at Teglio station is in good condition, another one will shortly be ready. Muschiosci, Strattara and S. Michele plants are being repaired. Repairs to transmission lines are proceeding; higher priority is given to most important lines.

Eng. Solari of S.I. P. reported that Fuighera and Castiglione Lora plants (24 MW) are now in operation; third penstock at Venaus plant will be ready about November 15. Minor damages also under repair; energy production now normal. Torino-Asti 70 KV line now in service; delay in other lines due to shortage of copper conductor. Cislagio substation is operating with 2 transformers; Turbigo to be ready at the end of October with second 230 KV transformer completed.

Eng. Marin (Adriatica Co.) reported that Doblari plant cannot be operated at full capacity due to insufficient transmission line. Only 148 Kms. out of 1,000, of 130 KV line still to be repaired. Copper conductor needed.

Eng. Brunetti (AEM Turin) reported that only a few Kms of 90 KV and 1000 of 50 KV damaged lines still remain unrepaired.

Eng. Chierichetti (AEL Milan) reported that transmission lines are now repaired.

Eng. Lezza (Salck Co.) stated that Tavazzano substation is still out of service; high voltage insulators needed. Genova-Spigno transmission line is now operated with single circuit; second circuit ready in October.

Eng. Berni (Montecatini Co.) reported that Mori station has now only 11 MW output following some damage. Repairs probably completed in December.

Repairs to substation are proceeding; transformer oil needed.

Col. Parker reported that approximately 20,000 tons of copper have been requisitioned in U.S.A. for Italy; no information available yet as to actual delivery.

- 16) - Priority order in repair work and construction of new machinery and equipment.

The Committee agreed that this matter be discussed at the next meeting. When reports on this subject and on war damage will be available.

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Eng. Chierichetti (AEM Milan) reported that transmission lines are now repaired.

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Col. Parker reported that approximately 20,000 tons of copper have been requisitioned in U.S.A. for Italy; no information available yet as to actual delivery.

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The Committee agreed that this matter be discussed at the next meeting. When reports on this subject and on war damage will be available.

- 17) - General situation of transport and allocation of vehicles.

New vehicles manufactured in Italy are now free for delivery but short of tires.

The Committee recommended that lists of vehicles required be Electrical Coys, not yet submitted to the Ministry of Public Wks, be sent within next week.

- 18) - Operation programme and availability of power for the month of October.

Eng. Benedetto (Enison Co.) reported on the serious situation arising from the increasing demand for domestic services. Present weekly production is 16-18 millions KWH more than last year; a very high peak is absorbed in Milan during cooking hours.

Much anxiety exists as to power demand situation of next winter considering the actual overloading of distribution systems.

Eng. Solari (SRP) reported that an output increase of 18% is observed in September as compared to 1944 also due to steel-works operation. Estimated increase in October is 30%. A shortage of 50 to 60 millions KWH is anticipated for the next winter.

Eng. Marin (Adriatica Co.) reported that daily production is now 4 millions KWH. (3.2 millions on the beginning of September); high peak loads are observed during cooking hours. Arrangements are now being made by Adriatica Co. in order to take more power from Montecatini Co., thus relieving Edison Co.

Eng. Brunetti (AEM Turin) reported that an increase of 100% is observed in energy distributed now, compared with 1944 figure. Outages of distributing cable transformers (about 50 per day) are due to excessive overloading.

Eng. Chierichetti (AEM Milan) reported on the insufficient production of electric power for the month of October. Electric furnaces for pig iron could be replaced by Martin furnaces if iron scraps were available.

Eng. Berni (Montecatini Co.) reported that the Montecatini Co. production will possibly be sufficient considering on average year as to rainfall situation.

Eng. Benedetto resumed situation stating that a shortage of some hundred millions KWH is anticipated for the next winter. Also peak load demand will not be met unless some provisions are made. Gas distribution for hours a day will not sufficiently relieve the power situation; fuel should also be provided for the thermal generating plants.

Col Parker informed the Committee on the total allocations to Gas Works October, and also advised that no fuel would probably be available for thermal stations. After much discussion the Committee agreed and recommended that following steps be taken to improve the electric power situation in Northern Italy:

- 1) Sufficient supply of coal to gas works.
- 2) Fuel to thermal stations in order to meet emergency situation.
- 3) Iron scraps for foundries in order not to operate electric furnaces.
- 4) Investigation on industry and steelworks power requirements.
- 5) General rationing of consumers.

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- 3) Iron scraps for foundries in order not to operate electric furnaces.
- 4) Investigation on industry and steelworks power requirements.
- 5) General rationing of consumers.
- 6) Prefects and Genio Civile to be informed on the situation.
- 7) Articles to be published in newspapers, in order to inform all people on the seriousness of this matter.
- 8) Full utilization of any available source of hydro power.

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19) - Any other business

The Committee recommended that coal for forges and gasoline be supplied to Electrical Coys. with high priority.

20) - Date and time of the next meeting.

Next meeting will be held in the offices of Edison Co. Milan at 0900 hrs. on Thursday, November 15th 1945.

Francesco
Dr. Eng. FRANCESCO BARLIZZI
Secretary to the Committee

NORTHERN ITALY ELECTRICITY SCHEME

Telephone
Rome 489081 - Ext. 317

10 September 1945

ADVISORY COMMITTEE ON ELECTRIC POWER (NORTHERN ITALY)

M I N U T E S

The second meeting of the Advisory Committee on Electric Power (Northern Italy) was held at 1000 hrs on Thursday August 30th, 1945 in the offices of Società Edison - Milan.

Present :

Dr. Eng. F. Benedetto	- Acting Chairman
Prof. Eng. A. Asta	- Vice-Chairman
Dr. Eng. R. Marin	- Member
Dr. Eng. M. Brunetti	- "
Dr. Eng. I. Audoly	- "
Dr. Eng. G. Dezza	- "
Dr. Eng. L. Selmo	- "
Dr. Eng. L. Emanueli	- "
Dr. Eng. G. Merla	- "
Dr. Eng. I. Meggi	- Acting Secretary
Lt. Col. G. F. Parker	- In Attendance
Maj. R. A. Ryan	- "
Maj. O. S. Wilcox	- "
Dr. Eng. E. Solari	- "
Dr. Eng. C. Genesio	- "

Lt. Col. Parker reported, that, in agreement with Prof. Eng. M. Visentini, General Inspector for Electricity, Water and Gas of the Ministry of Public Works, he had decided to appoint Dr. Eng. F. Benedetto, Acting Chairman to the Committee until the matter of Advisory Committees in Italy would be settled by the Italian Government.

MINUTES

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Present :

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Prof. Eng. A. Asta	- Vice-Chairman
Dr. Eng. R. Marin	- Member
Dr. Eng. M. Brunetti	- "
Dr. Eng. I. Audoly	- "
Dr. Eng. G. Dezza	- "
Dr. Eng. L. Salmo	- "
Dr. Eng. L. Erennelli	- "
Dr. Eng. G. Merla	- "
Dr. Eng. L. Maggi	- Acting Secretary
Lt. Col. G. F. Parker	- In Attendance
Maj. R. A. Ryan	- "
Maj. O. S. Wilcox	- "
Dr. Eng. E. Solari	- "
Dr. Eng. C. Genesio	- "

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Eng. Benedetto expressed his thanks to Col. Parker and Prof. Eng. Visentini.

6) - Minutes of the 1st meeting of the Committee held on July 19th, 1945

The minutes were approved.

7) - Matters arising from previous minutes

Min. 2) - page 3 second para should read: "South of the Po the situation is much worse due to destruction of stations on Brasinone River and of medium and high voltage electric systems."

Min. 2) Lt. Col. Parker reported that data on coal requirement for a daily 3-hours supply of gas in the largest towns, are now available. The responsible Allied Coal Allocation Authorities will shortly have a meeting on this matter and the Committee will be informed of any decision taken.

Min. 2) It was reported that large stocks of aluminum ore are now available at Porto Marghera but cannot be treated by the local plant which is out of service due to war damage. It would be advisable to take the ore to Mori and Bolzano now that electric power is largely available.

The Committee recommended that Eng. Dezza and Eng. Benedetto collect all necessary data in order to arrange with Major Wilcox (Milan Office of the Electrical Division, A.C.) for necessary transport.

Copper conductor is urgently needed especially for machinery repairs and some transmission line wires are now employed for this purpose. The Committee recommended that A.C. take some steps to see whether this material can be supplied from United States.

Lt. Col. Parker reported that a certain amount of imported wire, probably sufficient for the most important works would shortly be available. Magnetic sheets have also been shipped but will not be sufficient to meet the main requirements.

Eng. Asta informed the Committee that Terni Co. will shortly resume the production of magnetic sheets and Eng. Dezza reported that Falck Steelworks will be able to produce 300 tons of dynamo type and 100 tons of transformer type magnetic sheets per month, starting from October.

The Committee agreed that the operation of Electrosiderurgic Works should not be prolonged beyond November the 15th; Col. Parker reported that it is effected that the production of gas will be started in advance so as to have available cal coke available at an early date.

Insulating oil is urgently required for transformer

the local plant which is out of service due to war damage. It would be advisable to take the ore to Mori and Bolzano now that electric power is largely available.

The Committee recommended that Eng. Dezza and Eng. Benedetto collect all necessary data in order to arrange with Major Wilcox (Milan Office of the Electrical Division, A.C.) for necessary transport.

Copper conductor is urgently needed especially for machinery repairs and some transmission line wires are now employed for this purpose. The Committee recommended that A.C. take some steps to see whether this material can be supplied from United States.

It. Col. Parker reported that a certain amount of imported mica, probably sufficient for the most important works would shortly be available. Magnetic sheets have also been shipped but will not be sufficient to meet the main requirements.

Eng. Asta informed the Committee that Terni Co. will shortly resume the production of magnetic sheets and Eng. Dezza reported that Falck Steelworks will be able to produce 300 tons of dynamo type and 100 tons of transformer type magnetic sheets per month, starting from October.

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Insulating oil is urgently required for transformers and oil switches and no allocation has so far been made. Lubricating oil is also very urgent. The Committee recommended that A.C. look into this matter.

Min. 2) Transport situation is still extremely serious especially for the shortage of tyres. Eng. Emanueli reported on the estimated production of Pirelli and Michelin factories. It. Col. Parker informed the Committee that arrangements are being made by A.I.G. and the Italian Government to make available a certain number of military vehicles. The electric companies should submit now the lists of their requirements to the Ministry of Transport through the Ministry of Public Works.

The Committee recommended that a high priority be granted to the Electrical Companies in connection with the allocation of those vehicles.

The procedure to be followed when making application for cars and trucks was explained by Eng. Asta.

3) - To review progress and make recommendations in connection with the rehabilitation of generating plants and transmission systems

Eng. Selmo (S.I.P.) reported that Castiglione Dora Station will be in operation on September 10; Torino-Asti transmission line will be ready about September 15th.

All plants should be in operation by the end of the year. Present day production is less than last year and namely 25% less in Piedmont; 40% less in Alto Adige; 28% less in Lombardy. Water is being regularly stored.

Breda and Fiat Steelworks have now resumed operation at reduced load.

Eng. Marin (Adriatica Co.) reported that the main problem is now the electric power supply to Romagna. One line has been reactivated and arrangements are being made to provide suitable transformers.

An emergency on a reduced base, will probably be made throughout Romagna within this year.

Present day production is 3.2 millions kWh a day (1944 figure : 4 millions).

All reservoirs are normally being impounded.

Thermal station at Fodl is now out of service.

Eng. Dezza (Falck Co.) reported that the daily consumption of Falck Co. is now 120,000 kWh (normal : 1.8 millions) but will be increased up to 1 million in 20 days, when the workshops are reactivated.

A large amount of electric power is also available at Montecatini Co. plants.

Eng. Benedetto (Edison Co.) reported that Sonico ^{50/3} station started operation a week ago and Temù will again be in service in September. Stretters plant will probably be reactivated within this year.

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Transmission line repairs are proceeding slowly, due to shortage of conductor, clamps and insulators.

Two transmission lines (Mora-S. Palo and Mese-Arquate) will shortly be reactivated using all available line conductor to restore one circuit.

Three lines are now available to supply Toscana; a fourth line, shortly to be in operation, will permit the sending of a larger block of power to that region. Another line is being repaired by Emilian Co.

Industrial customers load is now slightly increasing; much anxiety exists as to the electrodomestic service consumption which, in some areas, has already exceeded the normal winter peak.

Material for maintenance and for extension of distribution network is still short and in some instances the necessary parts are taken from stand-by units.

Water is being regularly stored.

Eng. Genesio (C.I.E.L.I.) reported that repairs of Bèvera station will require a long time. The whole C.I.E.L.I. grid has been reactivated with means on hand.

Load reduction, compared with 1940, is 20% due to reduced operation of railways which is partially compensated by electrodomestic demand. The electric power supply to Franco is regularly maintained.

Eng. Brunetti (AEM) reported that the whole Turin network is now in operation. Rosone Station is operating at reduced load due to one 20,000 KVA unit being out of service. Water reservoir situation is normal. Similar situation for AEM at Milan.

9) - Operation programme and availability of power for the month of September 1945

It was reported that sufficient energy will be available during the next month.

C.I.E.L.I. will be short of 23 millions kWh during September, due to lack of rainfall; this energy will be supplied by Edison Company.

10) - Overloading on distribution systems due to large demand for domestic services

The matter of relieving the electrodomestic load by supplying gas for cooking was discussed.

It was shown that the electric heating load will still be very high and it would be advisable to permit free transport of wood for domestic heating into the large towns. 5041

Lt. Col. Parker drew the Committee's attention on the shortage of coal which will occur during the next several years. He suggested that the Committee follow a wise policy of extension

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Lt.Col. Parker drew the Committee's attention on the shortage of coal which will occur during the next several years advising the Companies to follow a wise policy of extension of distributing networks in view of a large demand for electrodomestic services.

11) - Any other business

The functions and purpose of the Advisory Committee and the Electric Industrial Committee were discussed by Eng. Asta, Eng. Benedetto and Eng. Brunetti; it was agreed that any interference between these Committees should carefully be avoided.

12) - Date and time of the next meeting

The Committee agreed that the next meeting would be held in the Offices of the Edison Company. All members will be notified of the date in due time.


Dr. Eng. FRANCESCO MARIUZZI
Secretary to the Committee

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Dr. Eng. FRANCO ~~500~~ BARIUZZI
Secretary to the Committee

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NORTHERN ITALY ELECTRICITY SCHEME

Telephone
Rome 489081 - Ext. 317

14 August 1945

ADVISORY COMMITTEE ON ELECTRIC POWER (NORTHERN ITALY)

The second meeting of the Advisory Committee on Electric Power (Northern Italy) will be held at 1000 hours on Thursday 30th August 1945 in the offices of Società Edison - Boro Bonaparte - Milan.

A G E N D A

- 1) - Minutes of the first meeting of the Committee, held on Thursday July 19, 1945.
- 2) - Matters arising from previous minutes.
- 3) - To review progress of repairs of generating plants and transmission systems.
- 4) - Operation programme and availability of power for the month of September.
- 5) - Overload on distribution systems, due to large demand for domestic services.
- 6) - Any other business. *W.M.D. s/c for recovery of material - Energia Co*
- 7) - Date and time of the next meeting.

[Signature]
Dr. Eng. F. BARLUZZI
Secretary to the Committee

Distribution

Lt.Col. G.F. Parker	-	Chairman
Prof.Eng. A. Asta	-	Vice Chairman
Dr.Eng. L. Emanuelli	-	Member
Dr.Eng. L. Selmo <i>Sofri</i>	-	"
Dr.Eng. F. Benedetto	-	"
Dr.Eng. A. Rossi <i>MANN</i>	-	"
Dr.Eng. M. Brunetti	-	" <i>REM. - TORINO</i>
Dr.Eng. I. Audoly	-	" <i>CIELE</i>
Dr.Eng. G. Merli	-	"
Dr.Eng. Dezza	-	"
Dr.Eng. F. Barluzzi	-	Secretary

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NORTHERN ITALY ELECTRICITY SCHEME

Telephone
Rome 489081 - Ext. 317

3 August 1935

ADVISORY COMMITTEE ON ELECTRIC POWER (NORTHERN ITALY)MINUTES

The first meeting of the Advisory Committee on Electric Power (Northern Italy) was held in the Offices of Allied Commission - Montecatini Bldg. Milan at 1000 hrs on Thursday 19th July 1945.

Present :

Lt. Col.	W.M. Lapper	- Chairman
Prof. Eng. A.	Asta	- Vice-Chairman
Dr. Eng. L.	Emanuelli	- Member
Dr. Eng. F.	Benedetto	- "
Dr. Eng. E.	Soleri	- Representing Dr. Eng. J. Selmo
Dr. Eng. R.	Marin	- Dr. Eng. A. Rossi
Dr. Eng. M.	Brunetti	- Member
Dr. Eng. I.	Audoly	- "
Dr. Eng. G.	Merla	- "
Dr. Eng. F.	Barluzzi	- Secretary
Lt. Col. G.F.	Parker	- In attendance
Major R.A.	Ryan	- "
Major C.S.	Wilcox	- "
Dr. Eng. I.	Maggi	- "

- 1) - Explanation by Lt. Col. W.M. Lapper on the functions and purpose of the Committee

503
Lt. Col. Lapper explained that owing to the serious damages to electrical facilities in Central Italy it had been found desirable to form a Committee of technical experts to consider schemes and make recommendations and to generally advise in the rehabilitation of the electricity supplies. This Committee proved so

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Dr.Eng. E.	Soleri	- Representing Dr.Eng.I. Selmo
Dr.Eng. R.	Marin	- " Dr.Eng.A. Rossi
Dr.Eng. M.	Brunetti	- Member
Dr.Eng. I.	Audoly	- "
Dr.Eng. G.	Merla	- "
Dr.Eng. T.	Berluzzi	- Secretary
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This Committee proved so successful that it was decided to form similar Committees for Sicily, Sardinia, Southern Italy and later for Northern Italy on liberation.

The Committees were called Advisory Committees on Electric Power and their functions were to advise the General Inspector for Electricity, Water and Gas of the Ministry of Public Works on all matters connected with the generation and supply of electricity.

Col. Lapper emphasized that it was important that members expressed their own views and not that of any particular company with which they were connected.

- 2 -

After a discussion it was agreed by the Committee that the Advisory Committee on Electric Power for Northern Italy would not in any way interfere with the industrial Committees operating in the North.

2) - To review progress and make recommendations in connection with the rehabilitation of the generating plants and transmission systems

Eng. Benedetto (Edison Co.) reported that some serious damages to generating stations and transmission lines were due to German and partisan action; minor damage occurred following air raids. About 75% of facilities damaged by partisans have now been repaired with means on hand.

Also 9 out of 12 line-crossings on the Po River have been repaired so that the whole electric system will shortly be entirely reactivated.

A serious problem, now arising from shortage of coal for heating and gas works is the overloading of distribution systems and transformers due to the increased domestic load. The situation will be worse in winter when heating demand will also be considered.

The reduction in load due to big industries not yet reactivated is about 25% compared with normal time. Power supply to Central Italy during summer may be about 100 MW but this amount must be largely reduced during winter (60-70 MW during 1,000 hrs in normal time).

Eng. Soleri (Società Idroelettrica Piemonte - "SIP") reported that some damage to generating stations and transmission systems was due to sabotage by partisans. Repairs are now being carried out and the situation will be normal at the end of 1945. Also 90% of lines have already been repaired.

One 40 MVA transformer from Cislago damaged by a flash-over is being repaired by Compagnia Generale di Elettrocità. The 220 KV line Cardano Cislago is operated at 130 KV with capacity reduced to 50%.

Reduction in load is 23% compared with normal time.

Similar troubles as for Edison Co. are encountered in distributing systems for domestic appliance overloading.

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Eng. Audoly (Compagnia Imprese Elettiche Liguri "CIELI") reported that Airole and Bevera generating stations had been completely destroyed by Germans; clearing of wrecks is shortly to begin as the French were now leaving this territory.

Transmission lines have been seriously damaged in the Airole Bevera area; also low voltage line in bad condition, material and transport needed.

At the Concenter steam station the electrical equipment was damaged by bombing; repairs are being carried out and the station will be ready for operation by October-November. Owing to shortage of coal the station will not be used except in case of emergency.

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Eng. Merin (società Adattatore di Elettricità "S.A.D.E.") reported that in the area north of Po River Bussolengo Station is the only one to be seriously damaged (dam) and will be repaired within next spring. Marghera steam plant repairs are now at an advanced stage.

South of the Po the situation is much worse due to destruction of stations on Bresimone River and of 15 KV electric system. Steps are now being taken to provide suitable transformers which could be purchased from the Consorzio formed by Alfa Romeo and Isotta Fraschini, during the German occupation, in order to clear some industrial areas.

Average load is now about 50% of normal time.

It. Col. Lepner reported that the electricity supply in the Venezia Giulia area under the control of the Yugoslav Army would be maintained by the electrical company in the normal way.

Eng. Brunetti (Azienda Elettrica Municipale "A.E.M." Turin) reported on the load increase due to domestic appliances. It was also stated that Montecatini Co. and Felck Co., which are the most important selfproducers are now generating 30% of normal time.

Recommendations

- (a) The Committee recommended that a sufficient amount of coal be supplied to the Gas Plants in order to avoid serious troubles in the distributing systems during next winter. The supply should be commenced in August in order to provide a safe margin of time for the starting of the Gas Plants.
- (b) The Committee recommended that immediate action be taken to supply the Electrical Companies with the following material: copper and aluminum conductor, mica, insulating oil, coal for electromechanical industries and cement factories, porcelain, magnetic sheets and rubber boots.
- (c) The Committee recommended that immediate action be taken to rectify the shortage of transportation which was seriously delaying the repair and replacement work. It was pointed out that 75% of the cars and trucks owned by the electrical companies had been taken by the Germans and 50% of the remaining vehicles were short of tyres.
- (d) The Committee recommended that tyres be made immediately available for existing vehicles in order

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- (d) The Committee recommended that tyres be made immediately available for existing vehicles in order that the normal repair and the work on the damaged plants could be proceeded with.

3) - Operation programme and allocation of power for the month of August 1945

It was reported that sufficient energy will be available during the next month and therefore a large block of power can be supplied to Central Italy.

4) - Any other business

The Committee agreed that Eng. Dezza, of Falck Steel Works, be included in the Advisory Committee for Northern Italy, as a representative of industrial self-producers of power.

5) - Date and time of the next meeting

Next meeting will be held at 100 hrs on Thursday 30th August 1945 in the offices of Edison Company - Foro Bonaparte - Milan.

Dr. Eng. FRANCESCO BARIUZZI
Secretary to the Committee

as a representative of industrial selfproducers of power.

5) - Date and time of the next meeting

Next meeting will be held at 100 hrs on Thursday 30th August 1945 in the offices of Edison Company - Foro Bonaparte - Milan.

Dr. Eng. FRANCESCO BARIUZZI
Secretary to the Committee

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NORTHERN ITALY ELECTRICITY SCHEME

Telephone
Rome 489081 - Ext. 317

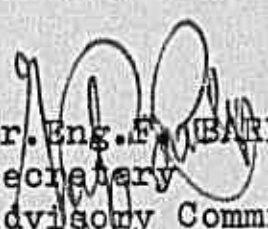
16 July 1945

ADVISORY COMMITTEE ON ELECTRIC POWER (NORTHERN ITALY)

The first meeting of the Advisory Committee on Electric Power (Northern Italy) will be held in the offices of Allied Commission, Milan at 10000 hours on Thursday 19th July 1945.

A G E N D A

- 1) - Explanation by Lt.Col. W.M. Lapper on the functions and purpose of the Committee.
- 2) - To review progress and make recommendations in connection with the rehabilitation of the generating plants and transmission systems.
- 3) - To discuss the operation programme and the allocation of power for the month of August 1945.
- 4) - Any other business.
- 5) - Date and time of next meeting.


Dr. Eng. F. BARLUZZI
Secretary
Advisory Committee

Distribution

Lt.Col. W.M. Lapper	- Chairman
Prof.Eng. A. Asta	- Vice Chairman
Dr.Eng. L. Emanuelli	- Member
Dr.Eng. L. Selmo	- "
Dr.Eng. F. Benedetto	- "
Dr.Eng. A. Rossi	- "
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Dr.Eng. I. Audoly	- "
Dr.Eng. G. Merla	- "
Dr.Eng. F. Barluzzi	- Secretary

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