

上海市電力問題

上海電力公司述

中華民國三十五年九月

上海市電力問題

現在上海市工商業急圖恢復，各方面需用電力至為迫切，故電力問題異常重要。因華商開北及浦東各發電廠之機件設備，經日人侵佔期內之破壞，及法商電氣公司亦受損失，上海需用電力除極小部分由法商電氣公司供給外，其餘均需由上海電力公司供應。

一般用戶雖能隨意施用電燈電力，不虞匱乏，但上海電力公司一年以來，經營慘淡，為社會服務，已盡最大努力，茲舉要點四項，分述如下，（一）電廠設備之恢復及供應電量之需要，（二）燃料缺乏之補救，（三）職工薪給之調整，（四）計劃經濟之平衡。

（一）電廠設備之恢復及供應電量之需要

去秋上海電力公司收回時，電廠及設備均現極端損壞狀況，因日人在侵佔期內，非但不加適當維持，且將楊樹浦發電廠之設備及材料損壞或移走，並有因轟炸而受損失者，如五千瓩容量之渦輪發電機一座，與鍋爐二只，係被移走，二萬二千五百瓩容量之發電機一座，因管理不善而蒙損壞，在本市無法修理，二萬瓩容量之發電機，亦被炸毀，楊樹浦電廠之鍋爐容量大為縮減，同時運煤設備因管理不善與被轟炸之結果，均需修理，而以運煤之汽船及駁船亦告失蹤。

在過去一年中二萬二千五百瓩渦輪發電機之損壞，已運國外修理，期於卅六年年底恢復工作，近又定購二萬五千瓩渦輪發電機一座，以代替被炸毀之二萬瓩電機，廠中鍋爐與透平均經檢查修理，故產電一度之煤斤消耗，已自三磅餘減至二磅二，最近期內更趕裝應用新高壓鍋爐與一萬五千瓩渦輪發電機，

炸損之運煤設備亦已加以修理，拖船二艘駁船十七艘均經先後收回應用。

但上海電力公司，應辦之工作甚多，如欲恢復發電廠戰前之標準，尚須多時之工費，但倘無過去一年之努力，則恐本市工商事業未必能獲得逐漸之恢復，此項設施之改進，在上海電力公司最高負荷，及發電容量，可於下表明之。

時期	每月最高負荷(瓩)	每月發電容量(度)
卅四年 九月	五一，一五〇	一六，八九〇，〇〇〇
十月	五七，一〇八	二〇，九四一，〇〇〇
十一月	七〇，六五三	二五，五一九，〇〇〇
十二月	八三，七〇四	三三，三八〇，〇〇〇
卅五年 一月	九〇，一八五	三九，一七〇，〇〇〇
二月	一〇四，五〇六	三七，一七九，〇〇〇
三月	一一八，七七〇	五二，〇二六，〇〇〇
四月	一二〇，五六六	五三，四二三，〇〇〇
五月	一二三，八一〇	五七，四九九，〇〇〇
六月	一一七，六五七	五七，三四五，〇〇〇
七月	一一八，五四九	六二，八一四，〇〇〇
八月	一二一，二八二	六三，四六〇，〇〇〇



(南)

(二) 燃料缺乏之補救

去年九月十七日接收時，上海電力公司存煤祇可供二日之用，而來源絕跡，情形極為嚴重，故用電限制不得不嚴厲執行，幸承中國當局及美國陸海軍協力合作，得以應付非常，並自日人方面截獲存煤，取以應用，又由工業廠家取得少量存煤，以換較大電力，復在上年十月中承美海軍允以燃油借給公司應用，自去年十一月二日起至現在止，上海電力公司收到煤三十船，約計念五萬公噸，其中開源煤二十一萬噸，台灣煤四萬噸，但事實上尚感不敷應用，乃以燃油代之，自去年十月起，總計所用煤油，約等於煤斤貳拾六萬噸，茲將去年九月起至本年八月止所用油，煤，兩種燃料，統計如下表，

時 期	用煤噸數	用油噸數
卅四年九月至十二月	五四，四一八	一八，一二三（等於用煤三四，四三三）
卅五年一月至四月	九六，七一〇	四四，三二三（等於用煤八四，二一四）
卅五年五月至八月	一〇五，六八二	七四，〇四六（等於用煤一四〇，六八七）

所幸燃料情形逐漸改善，供給電量勉能無虞缺乏，日後運輸遇有困難，燃料或將成為問題，而電量供應亦蒙影響矣。

(三) 職工薪給之調整

日人侵佔時期，將公司之薪給未加以改變，故在收回時，職工所得薪給極低，公司遂即予以改善。物價及生活費用不斷上漲，殊難覓得一種最後解決方案，故在過去半年中各種有關之複雜問題，使薪給公式及職工福利有繼續調整之必要，上海電力公司對於覓取公允調整辦法，曾與公用局社會局及公司工

會努力合作。

本年一月間，市長指派一委員會，檢討工資問題，務使配合生活費用之變更。結果編製一種公式，使生活指數，應用於底薪之上。此項公式，經市政當局批准後，於三月一日實行。現仍依此計算按月工資，不但上海電力公司為然，所有其他本市各公用事業，亦均遵辦，以示一律。

自上年八月起調整最低工資數額如右表。

卅四年八月份

國幣

二，五六五·七五

九月份

八，五八一·〇二

十月份

一二，七九七·〇二

十一月份

三二，二五五·〇〇

十二月份

三〇，一四〇·〇〇

卅五年一月份

三二，六七二·〇〇

二月份

五四，九九六·〇〇

三月份

七八，六〇四·〇〇

四月份

七七，〇四四·〇〇

五月份

一三三，九七〇·〇〇

六月份

一二八，二〇〇·〇〇

七月份

一四六，三〇〇·〇〇

八月份

一四七，六〇〇·〇〇

(四) 計劃經濟之平衡

五

上海電力公司所遭遇之經濟問題，其嚴重性殊不能蔑視，此項問題之癥結，係在成本高漲及調整電價時間之拖延。

去年九月十七日收回時，每度國幣四元之電價尚不敷一小部份之營業開支，直至去年十一月十日始獲增加，致使上海電力公司自去年九月十七日至十一月卅日期內產生鉅額之虧損。嗣後電價之調整，在中請頗久後，始獲核准，與使預計之救濟，均因燃料價格、薪金及其他開支之疾飛狂進而消滅。結果至四月止虧損更形加重。五六月間上海電力公司始感受四月十六日所核准電價之裨益，但此亦為八月十九日外匯率變更而增加之成本所抵消。

除五六月外，所有各月，均遭鉅大之虧損。總計自去年九月十七日至本年八月卅一日期內，虧損竟達國幣四，一三〇，〇〇〇，〇〇〇元之鉅。

在以後各月內，其營業開支，將受外匯率三，三五〇之直接影響，而每月增加約國幣一，二〇〇，〇〇〇，〇〇〇元。

如欲避免日後之虧損，致動搖經濟之基礎及危害已損之信用，則上海電力公司急需救濟，已甚明顯。上海電力公司對於政府抑低主要物品及服務之價格，固表同情。但電氣一物，不能儲藏，且不能在順適之情形下，高利出售，以抵償往昔之虧蝕，或預防日後之情勢。

電氣事業，如欲保持其信用，而在復興及發展中，站于經濟足以應付鉅大開支之地位，則務須按月清償其負擔，而不致沉溺於水下。普通工商業，可隨時停業而全市之經濟生活，仍得照常進行，不受影

警。但如服務全市之電氣事業，一旦停頓廿四小時，則工商各業，飲食，治安以及其他主要生計，均將立受嚴重之影響。

上海發電饋電之成本，係根據三大要素而定。第一，中國礦煤之國幣成本，第一，與薪金直接連繫之生活指數，第三，即外幣匯兌率，燃油成本，煤斤運費，國外訂購之材料，以及其他外幣項目均須取決於此要素。故欲使電價能與此三要素之趨勢對照，而免除每次請求加價在未蒙核准前所受之遲延損失以及電價調整之相隔時間逾長加價逾高之情形，上海電力公司已向主管當局提出一種鎮密之建議，俾得按月自動調整電價，與上述三要素之變動相映照。上海電力公司切盼中央及市政府有關機關對於此種實際，公允以及合理之計劃，能迅予慎重之考慮。再者上海之電價，實遠在其他城市之下，觀下表即可知之：

現在每度電價

	電燈	電力
上海	五〇—七三元	八四元
南京	一二五—一四五元	一四〇元
杭州	一九〇—四〇〇元	二二〇—四〇〇元
無錫	二〇八—二三六元	二三一元
青島	二一〇元	一八五元
漢口	四二〇—五〇〇元	五〇〇元

發電容量問題

七

最後應論及上海電力需要量之不斷發展，及應付此項發展之發電量問題，戰前大上海區內各公司設置之總容量共計二六三·〇〇〇瓩。待戰後收回時，則閉北，華商及浦東三公司之發電容量，均遭全部燬滅，法商公司大部亦受損壞，而上海電力公司亦較原置容量約減少百分之廿五計四七，五〇〇瓩，因之，各公司之戰後總容量縮至一四七，〇〇〇瓩左右，其中一三六，〇〇〇瓩為上海電力公司之剩餘設備所發，但因設備之損壞狀態，實際可用者祇一二三，〇〇〇瓩。

上海電力公司雖在法律上並無義務，而事實上供給閉北，華商，浦東三公司之需要達二三，〇〇〇瓩，法商公司達三，五〇〇瓩。

六月份全市用電之需要超出供量，因之市政府當局特設一供電審核委員會專司由此狀態所發生之各問題，嗣後曾採用若干辦法，竭力減低用戶所受容量缺乏之影響，大量工業用戶，尤以紗廠首表合作，將停工時間調整，以符最高負荷之時間，並按輪流表所指定各日全部停工，冷氣設備於下午八時半後，亦禁止使用，對於電力之申請，除特殊情形外，均予拒絕發接。

上海電力公司現在鉅大虧損之下，竭力恢復其發電容量，已如上述，閉北公司之設備經數月之修理後，亦已開始發電約計五，〇〇〇瓩，法商公司，對於戰時損失之容量，已另行訂購機件，以謀補充，各公司之行動，均上正規，但為解除電力缺乏之緊急問題，尤以閉北華商及浦東各區為甚，則應迅將詳密之復興計劃，加以實現，設欲避免供電之限制，及本市工商業發展之遲緩，則本市電力設備之擴充問題，應及早決定之。

上海電力公司 SHANGHAI POWER COMPANY

各用戶用電度數之百分比數 PER CENT OF TOTAL KWH SALES TO VARIOUS CLASSIFICATIONS OF CONSUMERS

	(1) 十一月份 November 1936	(2) 十一月份 November 1937	(3) 九月份 September 1945	(4) 十一月份 November 1945	(5) 七月份 July 1946
廣告燈	0.1%	0.1%	0.0%	0.0%	0.1%
Lighting	9.2	21.4	16.0	16.8	13.6
Heating and Cooking	1.6	4.5	1.9	1.6	2.9
Street Lighting	0.7	1.5	0.7	1.5	0.6
Industrial Power	85.8	71.4	55.9	59.2	71.9
其他 Other Electric Utilities (less deduction for industrial power)	2.6	1.1	25.5	20.9	10.9
總數 Total	100.0%	100.0%	100.0%	100.0%	100.0%

總數度
Total KWH Sales (100%)
紡織廠用度
KWH to Cotton Mills only

	17,200,000	12,900,000	20,700,000	53,483,000
	7,000,000	193,000	2,000,000	16,824,000

表內所述時期社會狀況 Significance of Periods Selected

- (1) 1936 :—A normal year.
- (2) 1937 :—Reflects Japanese war against China.
- (3) September, 1945 :—Month following end of war.
- (4) November, 1945 :—Allotments removed from industries.
- (5) July, 1946 :—Reflects present situation.

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mittee to deal with the many problems which this situation presented. Since June, a number of measures have been adopted to minimize as far as possible the effect on all consumers of the shortage of capacity. Large industrial users,—in particular the cotton mills,—have co-operated in whole-hearted fashion by shifting their stopping hours so as to coincide with the time of peak load, and by closing down entirely on particular days on a rotating schedule. The operation of air-conditioning equipment after 8:30 p.m. has been banned. New power connections are being refused except in special circumstances.

Shanghai Power Company, as already stated, has been taking vigorous steps and incurring heavy expenditures to restore its generating capacity. The Chapei company is now in the process of starting up generating equipment which has been repaired during recent months, with capacity of about 5,000 kilowatts. The French company has ordered units which will restore part of the capacity they lost during the war. All of these are moves in the right direction. However, it is essential that a more extensive program of rehabilitation be speedily carried out if the immediate problem of power shortage is to be relieved,—particularly in the Chapei, Nantao and Pootung areas,—and that the long-range problem of future expansion of power facilities in Greater Shanghai be resolved at an early date if restrictions of supply and the retarding of the future industrial and commercial growth of the city are to be avoided.

National, will give serious and prompt consideration to this practical, equitable and reasonable plan. In this connection, it is well to bear in mind that electricity rates are very low in Shanghai compared with other Chinese cities, as the following figures indicate:

	<i>Prevailing Rate per Kilowatt-Hour</i>	
	<i>Lighting</i>	<i>Power</i>
Shanghai	C\$ 50 to 73	C\$ 84
Nanking	C\$125 to 145	C\$140
Hangchow	C\$190 to 400	C\$220 to 400
Wusieh	C\$208 to 236	C\$231
Tsingtao	C\$210	C\$185
Hankow	C\$420 to 500	C\$500

THE PROBLEM OF GENERATING CAPACITY

Reference should be made, in conclusion, to the steady growth of demand for electric service in Shanghai, and the problem of capacity with which to meet it.

The pre-war combined installed capacity of the power plants serving Greater Shanghai was 263,000 kilowatts. When the plants were recovered after the war, it was found that the generating capacity of the Chapei, Nantao and Pootung companies had been completely wiped out, the capacity of the French company greatly impaired, and that Shanghai Power Company had lost 47,500 kilowatts, or about 25%, of its former capacity.

Thus, the combined post-war capacity of these plants had shrunk to about 147,000 kilowatts, of which 136,000 kilowatts was represented by the surviving equipment of Shanghai Power Company. Of the latter, however, only 123,000 kilowatts was effective because of the badly deteriorated condition of the equipment.

Shanghai Power Company, although it had no legal liability to do so, undertook to supply power to the three Chinese companies to the extent of 23,000 kilowatts of demand, and to the French company 3,500 kilowatts.

By June, the demand for electric services throughout the city had overtaken the available supplies and the Municipal authorities appointed an Electricity Supply Regulating Com-

For future months the rise in the exchange rate from 2,020 to 3,350 will be directly responsible for a monthly increase of about C\$ 1,200,000,000 in operating costs.

It is obvious that the Company must have immediate relief, if further staggering deficits are to be avoided,—deficits that will shake its financial foundations and jeopardize its already-strained credit. The Company is sympathetic with the Government's desire to hold down prices of essential commodities and services, but electricity is something that cannot be stored, and it is a product that cannot be sold at high margins of profit, when conditions are favorable, in order to make up for past losses or to provide against future contingencies.

An electric utility must pay its way from month to month, if it is to preserve its credit and be in a position to finance the heavy expenditures involved in maintenance and expansion. It must keep its head above water at all times. A business or industry can close down and the economic life of the city pursue its normal course. If, however, the electric utility serving the city pulls its switches for 24 hours, commerce and industry, food and water, law and order,—these and all other essentials of life,—are immediately and vitally affected.

The cost of producing and distributing electricity in Shanghai is governed by three predominant factors; firstly, the Chinese currency cost of Chinese-mined coal; secondly, the cost-of-living index to which payroll expense is directly linked; and finally, the foreign exchange rate, which determines the cost in Chinese currency of fuel oil, freight on coal, imported materials and supplies, and other items which are necessarily invoiced to the Company in foreign currency. In order that electric rates may constantly reflect the trend of these factors and to eliminate both the costly delays in obtaining individual authorization of rate increases and the more drastic increases that are bound to occur where there are lengthy intervals between rate adjustments, the Company has submitted to the Chinese authorities a carefully devised proposal for automatic monthly rate revisions which will exactly reflect fluctuations in the aforementioned three factors. It is earnestly hoped that all the Government agencies concerned, whether Municipal or

The effect of the adjustments is shown in the monthly amount paid to minimum wage workers since August 1945 :

August 1945	C\$ 2,565.75
September	8,581.02
October	12,797.02
November	32,255.00
December	30,140.00
January 1946	32,672.00
February	54,996.00
March	78,604.00
April	77,044.00
May	133,970.00
June	128,200.00
July	146,300.00
August	147,600.00

FINANCES

The gravity of the financial problems with which Shanghai Power Company has been coping cannot be overstressed. Underlying them has been the time lag between mounting costs and adjustment of inadequate rates.

The flat rate of C\$ 4.00 per kilowatt-hour which was in effect at the time of the "take-over" on September 17, 1945 and which was insufficient to cover more than a small fraction of the Company's out-of-pocket operating costs, was not raised until November 10, 1945 with the result that the Company's operations produced a very heavy deficit for the period September 17 to November 30, 1945. Other subsequent rate adjustments were authorised so long after they were applied for that the relief they were intended to provide vanished in the rapid upward spiraling of fuel, payroll and other costs, with the result that further serious deficits were incurred until April. In April, May and June the Company commenced to realize some benefit from a rate adjustment granted on April 16, but this was more than offset by the increased costs resulting from the revision of the foreign exchange rate on August 19.

Thus, in all months other than April, May and June, deficits have been incurred, which for the period September 17, 1945 to August 31, 1946 reached the alarming total of C\$ 4,130,000,000.

to be diverted to Shanghai Power Company from supplies earmarked for railways, steamships, industries and other essential users.

The gradual betterment of the fuel situation made it possible to lift restrictions on industrial usage on November 10, 1945, since which time no restrictions have had to be imposed because of failure of fuel supplies. It is well to remember, however, that until peaceful conditions are assured in the vicinity of Chinwangtao and the Kailan mines, the danger of interruption of coal supplies and consequent restriction of the Company's services will continue to be present.

WAGES

During the war the Japanese made many changes in the Company's wage schedules, with the result that the employees were found to be grossly underpaid at the time of the "take-over." The Company at once applied itself to the improvement of this unhappy and unjust situation.

Ever rising commodity prices and living costs made it impossible to find one final, immediate solution, and the many complicated questions involved have necessitated a succession of adjustments of wage formulas and employee benefits during the past year. The Company has cooperated earnestly and sympathetically with the Bureau of Public Utilities, the Bureau of Social Affairs and the Company Labour Union with the view to finding the basis for fair adjustments.

In January 1946, the Mayor of Shanghai appointed a committee to put forward recommendations with respect to the manner in which wages should be made to reflect the fluctuations of living costs. As the result of careful study a formula was devised for the application of the cost-of-living index to basic wages. This formula, after receiving the approval of the Municipal authorities, was put into effect on March 1 and still governs the computation of monthly wages, not only by Shanghai Power Company but also by the other local utilities, thus ensuring general uniformity of treatment of their employees.

to about 17% of normal 1937 usage. Domestic and commercial users were severely restricted.

The management, the Chinese authorities and the United States Army and Navy put their shoulders together and attacked the emergency with all the resources at their command. Local stocks of coal, captured from the Japanese, were drawn upon. Coal was obtained from the limited stocks of industrial plants in exchange for proportionately increased allotments of power. In the middle of October, supplies of United States Navy fuel oil were made available in such quantities as the Company's boilers could handle.

In the meantime, the local Fuel Control Commission of the Ministry of Economic Affairs was successful in chartering suitable ships from the American and British governments, and on November 2, 1945, Shanghai Power Company received its first shipload of Kailan coal from Chinwangtao. Since that time, Shanghai Power Company has received 30 cargoes of coal, totalling about 250,000 metric tons, of which approximately 210,000 tons have been from Kailan and 40,000 tons from Formosa. This, however, has not represented all of the fuel required to take care of the steadily growing load, and the deficiency has been made up by the increased use of fuel oil. During the period since October 1945, fuel oil equivalent to approximately 260,000 tons of coal has been burned in the boilers at the Riverside station. The progress achieved in expanding the use of fuel oil, through the conversion of steam boilers originally designed for coal, is shown in the following statistics:—

FUEL CONSUMED BY SHANGHAI POWER COMPANY

	Coal in metric tons	Fuel Oil	
		in metric tons	in equivalent metric tons of coal
Four months' periods:			
September through December, 1945	54,418	18,123	34,433
January through April, 1946	96,710	44,323	84,214
May through August, 1946	105,682	74,046	140,687

Without this increased usage of oil, load growth would have had to be restricted, or additional coal would have had

Stocks of materials, supplies and spare parts which were used up and confiscated during Japanese occupancy are being slowly but steadily replenished from local and foreign sources. Concrete bomb shelters, massive sand-bag barricades and other defences against air-raids, that had been erected by the Japanese and caused obstructions in and around the station, have been largely removed.

Much remains to be done. The rehabilitation of the plant to its full pre-war standard must necessarily require many more months of work and very heavy expense. But without the accomplishments of the past year, the gradual resumption of the city's commercial and industrial activity that has taken place would not have been possible. This revival of economic activity is reflected in the trend of the Company's peak load and kilowatt-hour output, as shown in the following monthly figures:—

	<i>Instantaneous Peak Load During the Month in Kilowatts</i>	<i>Monthly Output in Kilowatt-hours</i>
September 1945	51,150	16,890,000
October	57,108	20,941,000
November	70,653	25,519,000
December	83,704	33,380,000
January 1946	90,185	39,170,000
February	104,506	37,179,000
March	118,770	52,026,000
April	120,566	53,423,000
May	123,810	57,499,000
June	117,657	57,345,000
July	118,549	62,814,000
August	121,282	63,460,000

FUEL SHORTAGE

At the time of "take-over" on September 17, 1945, Shanghai Power Company's coal stocks were down to only two days' supply. No coal whatsoever was coming into Shanghai from any source. The situation was of utmost urgency. Drastic restrictions on electricity usage were in effect. The consumption of industrial plants was limited

RESTORATION AND REHABILITATION OF PLANT AND EQUIPMENT

When taken back, plant and equipment were found to be in extremely bad condition. The Japanese had performed no proper maintenance during their period of operation. Furthermore, the Riverside generating station of the Shanghai Power Company had suffered through removal of equipment and supplies by the Japanese and from bombings. A turbo-generator of 5,000 kilowatt capacity and two boilers had been removed; a generator of 22,500 kilowatt capacity had been damaged through bad handling beyond the possibility of local repair; and a unit of 20,000 kilowatt capacity had received a direct bomb hit. The generating capacity of the station had thus been reduced by 47,500 kilowatts, or almost 25%, during the period of occupation. Boiler capacity at Riverside had shrunk extensively because the boilers in their run-down condition could no longer be operated at normal capacity. The condition of the station's equipment, at the time of "take-over", was such that more than three pounds of coal were needed for each kilowatt-hour of output. Then too, the coal handling equipment was in bad repair as the result both of poor maintenance and bombings. The Company's steam launchers and coal lighters, essential for handling coal from steamers in the river to the Company's coal yards, were missing.

In the year which has passed, the damaged parts of the 22,500 kilowatt turbo-generator have been sent abroad for repair and this unit is expected back in operation soon after the end of 1946. A new 25,000 kilowatt turbo-generator has been ordered to replace the 20,000 kilowatt unit that suffered the direct bomb hit. Vigorous efforts are being made to place into operation, by the end of the year, the new high pressure boiler and 15,000 kilowatt turbo-generator, the installation of which, though well advanced in 1941, was not carried through to completion by the Japanese. Boilers and turbines have been overhauled and repaired with the result that the coal consumption per kilowatt-hour of output has fallen from over 3 pounds to 2.2 pounds. Bomb damage to the coal-handling equipment has been repaired. The Company's two tug boats, ash lighters, and seventeen of its nineteen steel coal lighters have been recovered and are again in use.

PROBLEMS OF SHANGHAI'S ELECTRIC UTILITIES

Every user of electricity in this great city has become aware, if only vaguely, that the electric utility companies serving him have been coping with problems of unprecedented complexity during this past year of post-war transition. Few of these users, however, have had brought home to them the full gravity and extent of those problems. There have not been interruptions of supply to their homes or offices to impress indelibly upon them their dependence on continuous electric service for comfort, health, safety and for the conduct of their business affairs. The snapping of a switch or the pressing of a lever has continued to produce the needed light or power. They have been too busy with their own individual problems to give more than passing thought to the obstacles the power companies have had to overcome in order that the city's electricity requirements might be met twenty-four hours a day, and seven days a week.

What, then, have been these problems? The more urgent of them may be grouped in four principal categories:—

Firstly, rehabilitation of war-damaged plant and equipment in order to again make available the generating capacity lost during the war, and so badly needed now to take care of increasing demands for service; secondly, obtaining adequate and uninterrupted supplies of fuel; thirdly, adjusting wages to provide a decent livelihood for employees, in pace with spiraling living costs; and finally, the problem of obtaining enough income to meet the ever-increasing cost of fuel, payrolls and other operating and corporate expenses.

Because of damage to and removal of generating equipment, the Chapei, Nantao and Pootung companies have had to fall back on the Shanghai Power Company for all, and the French company for part, of the electricity required by them for distribution to their own consumers. It may not be inappropriate, under these circumstances, to center the comments which follow around the problems of the organization that is carrying the bulk of the city's load, namely, the Shanghai Power Company.

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