

Kaufzes

Argentina

2.625 milly.

22.11.63

U.S.A 3.1 - 4.4

Amsterdam 5 milly.

15 million \$ plant

fabric 25 to 30
out of Albanian

Kaufzes

ΜΑΤΘΑΙΟΣ ΝΙΤΣΙΩΤΑΣ

ΑΝ. ΜΕΛΟΣ ΑΚΑΔΗΜΙΑΣ ΕΠΙΣΤΗΜΩΝ ΤΟΥΛΟΥΖΗΣ
ΔΙΕΥΘΥΝΤΗΣ ΔΕΗ

ΜΑΥΡΟΜΑΤΑΙΩΝ 41

ΤΗΛ. 813-892

ΑΘΗΝΑΙ

MCLELLAN AND PARTNERS
CONSULTING ENGINEERS

1 WARWICK ROW,
WESTMINSTER,
LONDON, S.W. 1

MEMBERS OF THE INSTITUTION OF ELECTRICAL ENGINEERS
AND THE INSTITUTION OF MECHANICAL ENGINEERS

INCORPORATED IN ENGLAND
REGISTERED IN GREAT BRITAIN
AS A PUBLIC COMPANY

TELEPHONE: VICTORIA 3422
TELEGRAMS AND CABLES: AMELECT LONDON S.W. 1

THE OFFICES OF MRS AND MCLELLAN

100, WHITE CHURCH LANE, LONDON, E.C. 4

OUR REFERENCE: **ESP/58**

YOUR REFERENCE: _____

TELEGRAMS: AMELECT LONDON S.W. 1

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TELEGRAMS AND CABLES: AMELECT LONDON S.W. 1

7th November, 1963.

Mathieu Nitsiotas,
Mavromataion 41,
Athens.

Dear Mr. Nitsiotas,

5th INTERNATIONAL CONGRESS ON ELECTRO-HEAT

Electricity Prices

I am sorry to have taken so long to answer the question which you asked at the Congress in Wiesbaden.

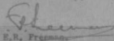
I am now enclosing a copy of the table which was shown during the introduction to our paper.

It maybe helpful also to have some note about how the range of costs per unit was calculated. Although the forms of the tariffs with the different electricity boards vary considerably, the overall costs per unit, for a tariff appropriately chosen to suit the particular load, all fall roughly within the range which is shown in the table.

In the attached note I have quoted the Central Electricity Generating Board's bulk supply tariff and a typical calculation for the costs under a tariff which might apply to a large size furnace installation.

I hope the note will be helpful to you. I would be glad to give any further explanation if you wish.

Yours sincerely,


E.R. Freeman

Enclosure:

ELECTRICITY COSTS IN GREAT BRITAIN

1963 - 1964

1. Central Electricity Generating Board "Bulk Supply Tariff".

<u>Maximum demand charge</u>	£8 . 17 . 6d. per kW
<u>Unit Charge</u>	Day - 7.0am - 11.0pm 0.58d. Night - 11.0pm - 7.0am 0.47d.
<u>Fuel Cost Variation</u>	0.000486d. per penny variation from 85/- per long ton. (Fuel, calorific value 11,000 Stn/lb.)

2. Notes

Most of the British Electricity Boards divide the year into ON-peak and OFF-peak periods: It is the demands during the ON-peak periods which largely determine the maximum demand charges.

The extent of the ON-peak periods, - usually during weekdays in winter time, varies greatly from one authority to another, from as low as 150 hrs total in the year to over 1,000 hrs a year.

The Electricity Boards add a percentage to their net purchase costs under the Bulk Supply Tariff when re-selling to a consumer. The percentages shown in the examples are typical for a favourable tariff for an arc furnace load, where the capital charges of providing the supply are paid for by the consumer.

The difference between examples 1 and 2 shows the importance of load control during the chargeable period. The opportunities vary greatly from works to works and the saving on the electricity costs must be balanced against the loss of profit from restrictions on production.

3. Examples

3.1. 50 MW demand OFF-peak and ON-peak

50% Load factor, - 219 million units/year

Fuel Adjustment (Fuel Cost assumed 80/- per ton)

Reduction (85-80)12 x 0.000486 = 0.0294/unit.

Effective unit costs, day/night, 0.551/0.44d.

With three shift working, assume two thirds of units by "day" and one third by "night".

Total Cost at Bulk Supply Tariff

50,000 x £8 . 17 . 6d.	£443,375
146 million units at 0.551	335,000
73 million units at 0.441	134,000

£912,375

Average cost per unit to Distributing Authority 1.05d./unit
Distribution Authority's (Electricity Board) percentage
for administrative expenses, say 6%
∴ Overall cost to Steelworks 1.11d./unit.

- 3.1. 50 MW demand OFF-peak
Restriction during ON-peak to 25 MW
50% Load factor OFF-peak demand.
Fuel Adjustment as Example 1.

Total Cost at Bulk Supply Tariff

25,000 x £8 . 17 . 6d.	£221,700
146 million units at 0.551d.	335,000
73 million units at 0.441d.	134,000

£690,700

Average cost for unit to Distribution Authority 0.76d.
Distribution Authority's percentage addition for
administrative expenses, say 8%
∴ Overall cost to Steelworks 0.81d./unit.

ELECTRICITY COSTS

Average Overall Costs per kWh

for Arc Furnace Supplies in Great Britain

and

Equivalent Costs in Other Currencies.

<u>Country</u>	<u>Rate of Exchange Per £1</u>	<u>Coal cost per long ton</u>	<u>Cost per million kg. cal.</u>	<u>Overall Average cost per kWh</u>
U.K.		80s. 0d.	12s. 10d.	0.85 - 1.05d.
Belgium	140 fr.	560 fr.	90 fr.	0.495 - 0.610 fr.
France	14 fr.	56 fr.	9 fr.	4.95 - 6.10 cent.
Germany	11.2 DM.	45 DM.	7.25 DM.	4.0 - 5.0 pf.
Holland	10.2 Fl.	41 Fl.	6.51 Fl.	3.6 - 4.4 cent.
Italy	1750 L.	7000 L.	1100 L.	6.2 - 7.7 L.
Japan	1015 Yen.	4060 Yen.	650 Yen.	3.6 - 4.4 Yen.
U.S.A.	2.80 \$	11.2 \$	1.8 \$	1.00 - 1.25 Cents

Ο κ. Κυριάκος Σηλιδopoulos, μετά τον διορισμόν του εἰς τὴν θέσιν τοῦ Προέδρου τοῦ Ὁργανισμοῦ Βιομηχανικῆς Ἀναπτύξεως, ἐξακολουθεῖ μετέχων τοῦ Διοικητικοῦ Συμβουλίου τῆς ΔΕΗ, κατὰ τὸ ὅτι ὡς Πρόεδρος τοῦ ΟΒΑ εἶναι Ἀντιπρόεδρος τοῦ Διοικητικοῦ Συμβουλίου τῆς Ἑταιρείας Ἀλουμινίου, εἰς τὰς ἐργασίας τοῦ ὅπου κανονικῶς λαμβάνει μέρος, ὅσων ἐν Ἀθήναις ὅσον καὶ εἰς Παρισίους καὶ τὸ γεγονός ὅτι ἡ ΔΕΗ ἔχει ἀπὸ τοῦ 1960 ὑπογράψει καὶ μετὰ τοῦ ΟΒΑ τὴν σύμβασιν παροχῆς ἠλεκτρικῆς ἐνεργείας εἰς τὴν Ἑταιρείαν Ἀλουμινίου ἧς μετέχει καὶ ὁ ΟΒΑ.

Σημειωτέον ὅτι τὸ ἄρθρον 9 τοῦ Βασιτικοῦ Διατάγματος τῆς 28ης Ἰανουαρίου 1951 περὶ "Ὁργανώσεως τῆς ΔΕΗ" ρητῶς ὀρίζει ὅτι "μέλη τοῦ διοικητικοῦ συμβουλίου τῆς ΔΕΗ ὁὐκ ὀύναται νὰ ὀρισθοῦν πρόσωπα εὐρισκόμενα εἰς συμβατικὴν σχέσιν μετὰ πρόσωπου συμβεβλημένου μετὰ τῆς ΔΕΗ καὶ ἔχοντα ἰδιωτικὸν συμφέρον ἐκ τῆς τοιαύτης συμβάσεως", ἐνῶ περαιτέρω τὸ ἄρθρον 10 τοῦ αὐτοῦ Βασιτικοῦ Διατάγματος καθορίζει ὅτι "μέλη τοῦ διοικητικοῦ συμβουλίου τῆς ΔΕΗ ἀπαλλάσσονται τῶν καθηκόντων των ἐν περιπτώσει συνόρομῆς μετὰ τὸν διορισμὸν των ἀσυμβιβάστου", τῆς ἀλλαγῆς δυναμῆς νὰ χωρῆ καὶ αὐτεπαγγέλτως ὑπὸ τοῦ ἀρμοδίου Ἰπουργοῦ Βιομηχανίας. Βάσει δὲ τῶν ρητῶν τούτων διατάξεων, ὕπῆρξαν εἰς τὸ παρελθὸν περιπτώσεις ὑποβολῆς κηρυχθέντων ἐκ μελῶν τοῦ Διοικητικοῦ Συμβουλίου τῆς ΔΕΗ.