



# The CEGB story

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## A reminder of things past

*Dear Colleague,*

¶ Vesting Day marks the end of the CEGB after 32 years of service to the consumer. They were eventful years. We did not get everything right and no doubt, with hindsight, some things could have been done differently. On balance, however, I believe the CEGB did a good job.

As the last Chairman, I thought it would be wrong for the CEGB to pass away with no reminder of its work and achievements.

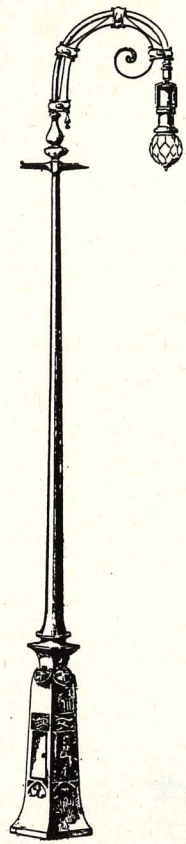
This booklet, which looks at the work of the Board and its staff and tries to explain where it fits into the history of the industry, has been produced to commemorate the CEGB. It is intended to recall some of the Board's achievements and the problems it faced. It is not meant as a work of reference for future historians, more a reminder of things past to all of us who worked for the Board.

With the electricity supply industry now entering a very different and in many ways exciting future I hope that when you glance through these pages, they will help you recall the way things were.

On behalf of the Board — and electricity consumers past and present — I thank you all for your hard work and commitment. I am retiring after 42 years in the industry so I will not play an active role in the new industry, but I wish all of you in the successor companies the very best for the future.

*Yours sincerely*

Chairman, Central Electricity  
Generating Board  
March 30, 1990



# Like Topsy, it just grew . . .

THE CEBB was "born lucky." At least, that's how it seemed in 1958 compared with the critical situation the industry had faced when it was nationalised just 10 years earlier. Then there had been a massive plant shortage. Power cuts were the order of the day.

Maybe that wasn't surprising. As Prime Minister Clement Attlee said: "You can't fight a war and scrape down to the bottom of the barrel . . . then start up again as if nothing had happened." But that was no consolation to people shivering in their homes or to the rest of industry trying to get back to peacetime production.

But by April, 1958, all that was forgotten. The difficulties and upheavals of nationalisation had been overcome. New stations had been brought into service. Supplies were back to normal. The new Board could start planning confidently for the future, even if the staff still didn't know of the changes the latest reorganisation would bring. But then, changes were nothing new to

people in the power supply business — and neither were crises.

It all stemmed from the way the industry had developed since the days of the first power stations — a motley collection of generating plant clanking away in sheds and basements, providing lighting supplies to homes and businesses nearby. Since then, like Topsy, it had "just grown." By 1920, London alone had no fewer than 50 different systems of electricity supply with 24 different voltages and 10 different frequencies. Moving home could mean having to change all the electrical appliances: but that wasn't all. As one power station engineer said:

*"At Deptford we were supplying London with 10,000 volt lighting supplies at 83 1/2 cycles; then there was direct current at 460 and 230 volts for local industrial power and lighting, a three-phase 6,600 volt 25 cycle system for large power consumers and traction, plus a single-phase 6,600 volt 25 cycle system feeding the Brighton railway. We always said we could have paralleled up with the Gas Works if necessary!"*

Deptford was one of the few "large" stations of that time (some 160MW), but most had a generating capacity of less than 5MW.

Not only that. Very few stations were inter-connected, which meant that most needed to instal their own reserve plant to cover breakdown and maintenance. This plus the high running costs made electricity expensive for industry and a luxury that most people couldn't afford in their homes.

The breakthrough came in December, 1926, when the Central Electricity Board was set up. Their job was to build a "gridiron" of high voltage transmission lines to link the most efficient stations, with the aim of providing abundant and cheaper supplies.

There had been intense opposition — both in Parliament and from electricity undertakings. As one power company chairman exclaimed: "The salvation of the industry is not to be brought about either by the waving of weird gridirons or the multiplication

By 1881 when *Punch* published this cartoon the baby created by Michael Faraday and others was beginning to be noticed. In that year, Godalming in Surrey had installed electric street lighting and King Steel and King Coal, the giants of the industrial revolution on which much of Britain's prosperity was built, were right to ask what this new industry would become. Like Topsy it was to grow and grow . . .



"WHAT WILL HE GROW TO?"



*Weakened by war and with coal in short supply, the power system was ill-prepared for the big freeze of 1946/1947. Temperatures were below zero for long periods and even in central London they fell to as low as minus 15 degrees Centigrade. There were power cuts across the country. In February, with snow deep on the ground, members of the Central Electricity Board wearing overcoats and mufflers were photographed meeting by candlelight at the Board's London headquarters.*

of authorities." But the scheme worked.

The 140 "selected stations" stayed in the ownership of the power companies and municipalities, but CEB engineers controlled generation using the most efficient plant to achieve the lowest production costs. That wasn't all. Because the inter-connected stations could "pool reserve plant" there were even bigger savings. The average cost of electricity was halved.

One company was offering domestic lighting supplies on a sliding scale from today's equivalent of 3p to 2p a unit, and power for cooking or domestic chores at half that — and the result was a new "electric revolution." For the first time ordinary people could afford electricity. Showrooms were hiring out cookers at six shillings (30p) a quarter. Industry was reaping equal benefits — thanks to the way more use could be made of stations with the best plant.

Running the early grid had its problems. Control engineers were having to develop skills in forecasting likely demand in their area — learning the dif-

ferent effects of wet or dry washdays and the peaks that could occur if Gracie Fields was singing on the wireless.

*"Perhaps the biggest instance was when Tommy Farr fought Joe Louis for the world heavyweight boxing title in 1937. The fight was being broadcast at 4.0am our time with listeners having lights on, electric fires glowing and coffee percolators at full blast. We'd kept extra power stations on load and it was just as well. The normally low night load shot up by 400MW that night — a quite incredible increase for those years."*

Another breakthrough came in 1938. Until then the grid had been operated in seven virtually independent systems. Having too many stations connected in one big network had been thought too risky, but when it was seen that the South of the country hadn't got enough generating plant to meet likely needs, while the North had capacity to spare, the ex-