

The Big Storm October 1987
as seen from Leeds Grid Control Centre Becca Hall
by John Tweddle

There was nothing remarkable as I set out to Becca for my final night shift of the week. I was looking forward to a weekend off as the shift pattern meant that I had worked evening shifts the previous weekend before the run of four-night shifts of the week. This was the standard shift pattern for that part of the rota. My journey from East Leeds was on good roads and they were clear and so the journey was uneventful.

Shift change time was 10.00pm, set conveniently so that the departing evening shift could call in for a pint on their way home if they so wished. Again, there was nothing unusual about the handover. Among some friendly banter we will have discussed the generator availabilities and their overnight maintenance plans that would restrict their output; a short discussion on the system limits and demand estimates and my colleague was able to have a prompt get away.

There were four engineers and a clerk on shift overnight. The Senior was Kevin Cleary (RIP) and Ivan 'Ben' Bow was on the loading desk while I was on the scheduling desk. Gavin Darlington (RIP) made up the team on switching.

In the early part of my shift I would have checked the weather forecast and demand estimates – no mention there of what was to come! Once the morning programme was confirmed by National Control, I would have set out to tell our power stations their morning pickup programme, checking any overnight maintenance plans and agree synchronising times for those stations that shut down overnight. We were using the GOAL (Generator Ordering and Loading) programme at the time to optimise generation production costs and match generation and demand on a half hour by half hour basis. This was a well understood tool, but it was still necessary to check all the half hourly figures to make sure all was in order before agreeing the morning programme with National and despatching the generators. This together with other routine work preparing the GOAL input file for the early morning study would take me to well past midnight. As the demand tailed off, I awaited the off-peak pickup, 1A, which would give an early indication that the demand estimates and chosen demand curve were good.

The daily demand curve was split up into – cardinal points. 1A –off-peak pick-up; 1B night trough; 2A morning peak; 2B lunchtime peak; 3A early afternoon off-peak boost; 3C teatime peak; 4A a fixed time in the evening drop off; 4B the evening trough and 4C late night off-peak. Depending on the time of the year 4C and 1A were often merged after the clock change but being late October 1A was the dominant demand and an important way-marker for the following day demands. This was timed for 01.30 and so preparation of the morning GOAL input file could not be completed until sometime after this had passed.

As the demand tailed away it was not unusual to observe circuits being switched out along the south coast ring so the trip of Lovedean – Bolney circuit would raise little suspicion in Leeds of what was soon to come.

We split the domestics up between the team and the night shift work of the scheduling Engineer generally meant taking a break sometime after 02.30am. It was nothing unusual for me to be down the corridor at that time preparing a snack and doing the washing up. As I recall it, I had finished my snack and the trolley was loaded with the cleaned mugs and the kettle filled for the next brew when Gavin came running down the corridor saying Kevin wanted me back in the control room pronto as all hell was breaking loose.

As I arrived in the control room I stared at the National diagram all lit up and flashing like a Christmas tree, except this was just in the south east corner. It was not uncommon for there to be an indication change over in the early hours when BT did some, usually unannounced, maintenance and this would cause multiple indications with lights flashing on the National diagram. Control engineers would often exclaim 'bl**dy telecoms!' But this was different and very soon the frequency was dancing around. It was clear the grid system was experiencing serious disturbance. Kevin was talking to National Control and as I set down at the scheduling desk next to Ben at the Loading desk.

We discussed what actions we should prepare for. An Amber warning was soon declared and we already had the emergency procedure sheets to hand. The control room radio was tuned to the BBC and soon reports were flooding in of the hurricane hitting the south east of England. There was a sudden and rapid rise in frequency accompanied by indications that South East England was now split off from the rest of the network. By this time National Control was literally in the dark with no communications other than the GI telephone system.

In line with established emergency procedures it was agreed the control of loading and despatch should be transferred to Leeds Grid Control Area. We had most of the generation on the system both at the time and scheduled for the morning. We also had interarea network connections to Birmingham and Manchester Control Areas and therefore direct GI line telephone to the key people in the control rooms. Manchester took control of Dinorwig and Ffestniog pumped storage stations for frequency control and Birmingham liaised with Bristol Control Area. By this time Scotland were aware of what was going on and so we included them in the ongoing operating conversations.

Half hour by half hour demand and generation estimates were prepared in each Grid Control Area and Leeds added them together. We already had some information from the GOAL study printout, but details were not shared between Control Areas. Only National Control had the complete picture and they were fully occupied co-ordinating the restoration of the network. Also, by now with such a significant incident CEGB Board Management, the media and Government wanted to know what was happening.

National Control had called out their Management Team and we did the same. Kevin was already getting bombarded with calls from senior people in the Area Boards and well as CEGB Regional Managers. When Eric Chefneaux, the North East Region System Operation Manager arrived he immediately took all the Management calls off the Control Room team leaving us to get on with co-ordinating generation across the country to meet the morning demand increases. Step by step, block load by block load we balanced the generation to meet the increasing demand in line with the manually prepared programme we had put together earlier. For many of us this was how we used to operate before the days of GOAL.

When Brian Scott, Leeds GCA Control Manager, arrived he got a full briefing from Kevin and after a short discussion with Eric Chefneaux returned to the control room. Spying the trolley of clean mugs exactly where I had left them on my return to the Control Room a few hours earlier and seeing us all busy at work I can remember him saying...:right lads the best thing I can do is make you all a cup of tea'. How welcome that was as by now we were all getting rather dry mouthed as we kept the system going.

Just before 7.00am I rang my wife and told her to keep the children off school that day as there was a violent storm working its way north leaving a trail of destruction in its wake. As it happened just as suddenly as the storm had crossed the channel and hit southern England it turned right and disappeared off through the wash into the North Sea. It was a good job it did as it is hard to imagine what would have happened if it had hit the power stations along the River Trent and the Aire Valley where the bulk of the country's generation was based.

By the time my morning shift relief came in things were starting to get back to normal, although Leeds GCA was still controlling generation scheduling and despatch. The handover was very different and we a combined handover and briefing for all the oncoming team.

On the way home all was quiet, nothing like I had warned my wife about. Indeed, when I got home, she wanted to know what all the fuss was about. As we sat down to watch the morning TV news coverage it was all too clear that the South East had suffered one of the worst storms ever, certainly in living memory.

Some months later the CEGB made a documentary 'Riding the Hurricane' which powerfully portrays the events of that night. It is still available on YouTube, as are the ITN newsreels. It was good following reading Tony Malins' article to look back and relive the night. I hope that many who joined the Industry since privatisation would find it worthwhile background briefing.