

HISTELEEC NEWS

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COMMITTEE CLARION CALL

The lack of new “blood” volunteering to join the committee is becoming a worrying problem, particularly with four members reaching 80 or over by next March. Committee membership was discussed at our last meeting and it was decided to propose at the next AGM removal of the present ceiling of 12 to encourage some new members to join whilst we still have the benefit of the experience of the present committee. Peter Lamb, Secretary intimated that he would resign the Secretary’s post in March 2014 having been on the committee for 20 years then. The need to get new younger members on board would enable a smooth hand-over of tasks should the elder members fall ill etc. Peter is wishing to devote more time and effort to the Archives, since we haven’t been able to get people leaping forth to help in that direction either.

GLOBAL WARMING OR NOT

This global warming argument is getting very controversial with the latest report issued by the Met Office, which tells us that for the last 16 years there has been no appreciable warming. There had been a rise before that but it has been steady since then and certainly no reduction, so what are we to believe? The Mail-on-Sunday came to the following conclusion, which I think is a fair assumption. “Yes, Global Warming is real and some of it has been caused by the carbon dioxide emitted by fossil fuels. But the evidence is beginning to suggest that it may be happening much slower than the catastrophists have claimed – a conclusion with enormous policy implications!”

DRAX GOES BIOMASS

Drax Power Station in South Yorkshire has been Britain’s biggest single electricity production plant for decades, but since it has been coal-fired it has also been the biggest polluter. Over the last few years Drax has been experimenting with firing a boiler with biomass fuel and now has announced plans to complete the conversion from coal to biomass. The first unit will be complete by Spring 2013, a second unit by 2014 and the third by 2016. The fuel, woodchip and other organic matter, will be in pellet form and will be shipped from the Gulf of Mexico, where it is intended to establish a pellet producing plant. When complete the Drax plant will be capable of producing 2gigawatts of “green” electricity. The Chief Executive Dorothy Thompson says “We will move from a coal plant that burns a little biomass to a biomass plant that burns some coal”. Interesting!!

NEW ENERGY BILL

The details of the new Energy Bill, which were released at the beginning of December, include a clean energy levy on all households, commerce and industry. It will rise from £2.35 billion to £7.65 billion (that’s over 3 times) and will be reflected in everyone’s electricity bills, which currently stands at 5%. It is reported that the increase will see an increase of around £100 per annum per household. The levy is intended to pay for the subsidies which will be paid for electricity produced by new nuclear power stations and wind-farms.

DYSON – “MORE SCIENCE”

James Dyson is doing a great job in encouraging more young people to take up the sciences and engineering, since only 7% of university graduates last year were taking science degrees and many of those came from foreign countries. He recently launched a new cordless vacuum cleaner, when he said that the more sophisticated you get as a nation, the more you turn your back on the things that made you great! We have to change our culture, so that we can create wealth from making things and don’t just try to make money out of money!! His company based at Malmesbury last year hired 200 engineers doubling the numbers it employs. His punch-line was the need to restore the UK’s position as great manufacturing nation.

NEW YORK DEVASTATION

In November it was reported that since the hurricane devastated New York and New Jersey still a ¼ million people along the coast are without electricity and some residents in Long Island and Queens face the prospect of being cut off until Christmas. In Long Island alone 66,000 people are without supply and have protested outside the Long Island Power Authority. Who is getting the stick? Answer : National Grid, who operates power stations and transmission lines for Long Island Power Authority!

SEVERN BARRAGE LATEST

The latest group wishing to harness the River Severn is a Welsh based group called Hafren Power backed by the Welsh Parliament and Peter Hain ex-Welsh Secretary under the last Government. They are not wanting any funding from Central Government just the permission to go-ahead! It would be constructed entirely from private enterprise at over £25 billion. It could generate 5% of the UK electricity, the equivalent of 3 nuclear power stations!!

WIGAN PIER



The above picture was omitted from David Hutton's article in the last issue on trying to find Wigan Pier. He said "Wigan Pier was a "Tippler". Coal laden trucks or tubs from nearby collieries would travel down tracks to the canal. They would hit a jetty and tipple (topple over), unloading the coal into the waiting barges. There were many tipplers along the canal and the original pier shown was connected to Winstanley Colliery and was known as the Wigan Tippler or the Wigan Pier.

OLDBURY SOLD

Horizon, the company set up by EON/RWE to build the new nuclear stations at Oldbury and Wylfa, was put up for sale following Germany's proposed withdrawal from nuclear generation arising from the recent nuclear accident in Japan (Fukushima). The company has been bought by the Japanese electronics company Hitachi. A lot of water still has to flow under the bridge before these replacement stations are built since full approval will need to be obtained for their different reactor design and the government still needs to come out of the long grass regarding any price guarantees for the electricity generated, to provide a suitable return on the huge capital investment that will be required. *Chris Buck*

US SHALE GAS SUCCESS

The USA doesn't seem to have a problem with fracking i.e. exploding underground rock strata to release natural gas. It is reported that in the last 5 years that in the US gas has started to be extracted from previously inaccessible reserves trapped inside rocks by fracking. This has been so successful that there has been a natural gas boom and the carbon dioxide emissions in the US have dropped by 400-500 megatons per year or down 14% on their peak in 2007 due to the closure of coal fired plants. This hasn't been achieved by Government research or manipulation of the costs, so the message is from across the Atlantic, encourage energy innovation to create new sources of energy, not artificial caps on emissions.

OLVESTON RAISES A BALLOON!

Olveston residents near Thornbury north of Bristol are fighting a scheme to install three wind turbines nearby at Ingst. They have raised an air balloon to the anticipated height of the turbines (126ft) to show how tall they would be, only to be told by the firm REG Windpower that they have decided to increase the height to 150ft.

HINKLEY POINT C CONNECTION UPDATE

Those of us living in the northern part of our area will be well aware of the proposed 400kV Line which National Grid propose to build from Hinkley Point, 3260 MW, near Bridgwater, to the Gas fired generating station north of Bristol known as Seabank (1145 MW) to deliver power to the northern part of the National Grid system. Hinkley C will continue to feed to the East to Melksham and to the South to Taunton and the rest of the Southwest. Recently we had a talk by National Grid on this new line, who told us it will have a capacity of 2 x 3190 MVA.

National Grid has gone to considerable trouble to consult all the land owners and the population generally to listen to their concerns about the line and where it might run. Ideas such as putting the connection all underground or in the Severn estuary were dismissed on grounds of cost or impracticability.

On Tues. 6th Nov. 2012 National Grid announced their Draft Route and proposals leading to completion by 2019. These proposals involve a significant amount of removal and/or undergrounding of WPD 132kV lines. The main proposal is to underground the 400kV Circuit through the Mendips. It is also proposed to build a 400kV/132kV substation to the north of the Mendips where the 400kV underground cable terminates

At present there are two 132kV lines owned by Western Power Distribution [WPD] running from Bridgwater to Portishead and Avonmouth. The line to the West from the new 400/132kV S/S to Bridgwater will supply WSM, while the line to the East will be removed and the route used for the new 400kV line.

North from the new 400/132kV.S/S the 400kV. Line will replace the present 132kV line to the West. The 132kV line to the East runs very close to the line to the West past Nailsea, so this will be undergrounded all the way to Portishead.

This update is based on the map sent to people on the National Grid mailing list, a copy is held at Cairns Road and I have a spare available. *Mike Hield*

BUSINESS NEWS

The Bristol based Tidal Energy firm, which makes water turbines, has been sold by Rolls-Royce to the French firm Alstrom, which is a bitter disappointment for local people.

International Power, a global British energy company is being sold to another French firm, the massive conglomerate GDF Suez, 35 % owned by the French Government. International Power owns or part owns dozens of generating plants world-wide and at least 10 coal, gas, wind and hydro schemes in the UK.

On the other hand GKN have bought Volvo Aerospace who makes parts for aeroplanes etc. Nevertheless I get the feeling that the French Government are trying to take over all our engineering businesses!!

A DAY AT SHERBORNE CASTLE

Imagine a perfect autumn day, clear blue sky, warm sunshine on your back, the scent of a freshwater lake and new mown grass carried by a cool breeze - wonderful! That is what greeted us when Chris and I, together with about twenty or so other members and guests visited the latest "Sherborne Castle". I say the latest because there are, in fact, two. The first castle was reduced to ruins during the Civil war and those very visible today, and some way from the present building, which was actually built as a country house by Sir Walter Raleigh in 1594. He called it "Sherborne Lodge" and so it remained until the end of the first castle, when it became known as "Sherborne Castle". The house, originally rectangular, has been added to over the years and has four hexagonal corner turrets and additional wings making it a truly impressive building.

Following Sir Walter's demise his estates were forfeited to the crown and King James 1st allowed Sir John Digby to purchase the castle. When the first Earl Digby died in the 19th century, without heirs, the castle was left to his Wingfield nephew, who promptly added the name of Digby to his own, and so the castle is still in the care of the Wingfield Digby family to this day. It has been a Red Cross hospital, the Commando HQ for the D day landings and has been visited by King George 3rd, the poet Alexander Pope, Prince William of Orange and many others so you can imagine its contents and history from the beginning are fascinating.

We had a warm welcome on arrival, an excellent buffet lunch and an entertaining, private, guided tour by a delightful lady (of a certain age) all in all a super day. All this thanks to the efforts of Keith Morgan and his wife, Pat, who arranged it all. I can only say if you missed it, you missed a treat!
Dave Hole

"LIVING IN A LIGHTHOUSE" TALK

An enjoyable meeting was held on Saturday 20th October at the Nutwell Lodge, Lymstone with a carvery lunch and presentation by Vanessa Langley entitled 'Living in a lamp post'. During the pre-luncheon get together, David Hole our chairman announced with some trepidation that Vanessa had advised him a day or so before that she was suffering from a throat infection and may not be able to deliver her talk. David decided to take no chance and came prepared with his own slides ready to talk about the Eddystone Lighthouse. However, much to David's relief Vanessa recovered sufficiently to be able to go ahead with her presentation.

Vanessa explained that the lighthouses go back a long way in history (the one at Pharos Alexandria in Egypt was built around 280 – 247 BC). They were constructed to provide safety of passage to shipping and seafarers. The intensity of each light and distance it could be seen varied depending on the fuel used, weather, location and technological development at the time. Vanessa brought along several examples of electric lamps and photographs of others to illustrate the variation in size and design. She also mentioned that lighthouses often had a powerful horn to warn shipping in foggy conditions.

Lighthouse keepers endured living in isolated and cramped living conditions with access to and from many lighthouses being extremely difficult in adverse weather or sea conditions. This often resulted in prolonged extra periods of duty lasting many days or weeks before relief could be undertaken. Some lighthouses have been equipped with rather precariously positioned helicopter landing pads on top of the structure. Vanessa impressed us with her knowledge gained during the many years that she has researched and visited lighthouses around the British Isles. During this time she had taken many photographs and recorded the working conditions of the lighthouse keepers.

The first automation of Trinity House lighthouses occurred around 1910 but it was from the early 1980's that a major programme was undertaken resulting in all lighthouses being automated and de-manned that was completed in 1998. Vanessa mentioned that the non-operational parts of many lighthouses operated by Northern Lights in Scotland and Trinity House in England and Wales have been sold, some opened to public visits and others made available as holiday accommodation.

In concluding Vanessa explained that technological advances have resulted in seafarers relying less on lighthouses and becoming dependant on alternative means of locating their position at sea such as radio, radar and satellite navigation.

After answering questions, the chairman proposed a vote of thanks to Vanessa that was duly endorsed by all 46 members and guests present.
David Cousins

A RAILWAY ELECTRICAL ENGINEER

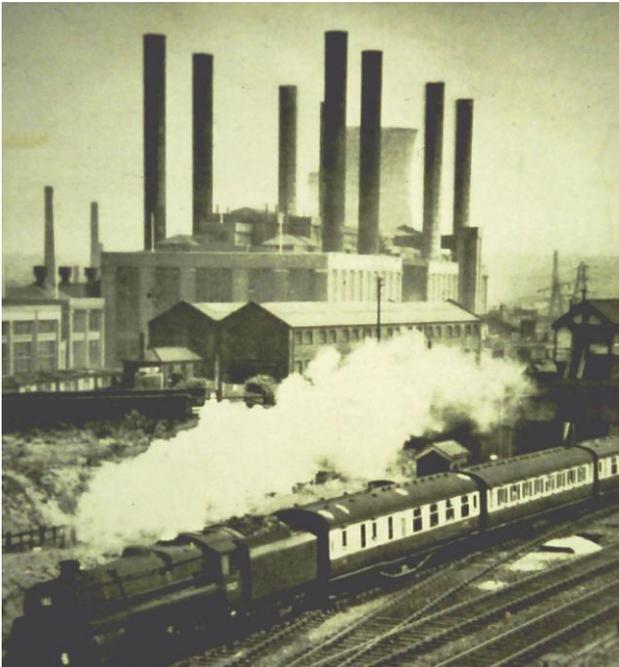
Graham Warburton thought we may be interested in the life of a railway electrical engineer. Here is an extract from an IEE Obituary :-

W. E. Langdon – was a remarkable engineer in his time with the Midland Railways. William Edward Langdon died on August 12th 1905. He was born in 1832, son of the late Commander J.W. Langdon, R.N., Assistant Hydrographer at the Admiralty. After schooling, he entered the service of the Electric and International Telegraphic Company at the age of 19, as a Junior Engineer and acting as Assistant to Sir William H. Preece. On the transfer of the telegraphs to the GPO in 1870 he took charge of the Telegraph Dept. of the London and South Western Railway Co., but was recalled by the GPO to take up the position of Assistant Divisional Engineer, a post which he held until 1878, when he was appointed Telegraph Superintendent of the Midland Railway Co.

During his time with the Midland Railway he resigalled the entire system. When he retired in 1902 there were over 1,000 telegraph stations and 1,070 block-signalling posts on the Midland Railway Company's system. There were also eleven generating stations for lighting and power purposes, all of which were established under his direction.

THEN & NOW :- THEN

In September 1955 I had completed A levels in Maths, Physics and Chemistry at Wakefield Grammar School. At that time the school was a pretty ordinary boys' grammar school which served part of the West Riding heavy woollen district and the coal-mining area south to Barnsley. (It is now a very prestigious private school known as QEGS - Queen Elizabeth Grammar School). I applied to Yorkshire Electricity Board for an apprenticeship and attended for interview at YEB Wakefield sub-area offices for assessment tests and interview (bring your own pencil). Next was a letter telling me to be at Thornhill Power Station early one Monday morning. The power station was built in 1903 at Ravensthorpe. Thornhill village is high above the station at just the height to receive the flue gases (and grit) from the chimneys! I had to take three buses from home to Ravensthorpe with the last from Dewsbury bus station to the power station gates. The bus was full of women working at the dry-cleaners just across the river from the power station. I admit I was gob-smacked by the weekend's sexual exploits of these "ladies". I was very glad to alight at the power station gates.



Thornhill Power Station

I went to the reception counter and presented my programme for 3-months mechanical fitting. The elderly man at reception rang up the foreman fitter and said "I've another b'apprentice for thee". He turned to me and said "go down t'engine room and ask for Laurie Smith". I had never been in a power station and was interested to see (and hear) two English Electric 30MW sets of pre-war vintage and three similar machines built in the 1940s but of 45MW rating. In the fitting shop I was given a boiler suite and told to "go wi't unit adjuster". This man was responsible for the chain grate stokers and we were soon between the upper and lower layers of a chain grate stoker which was still hot. It was noisy and dusty and we had insufficient space to stand up. Our only tools were a 14lb hammer and a large cold chisel. The mate asked "does ta breed pigeons? I replied "no", which left him

aghast. By tea break I was wondering if I had chosen the wrong career! At no time was there any induction course or any safety instruction. Although I had been employed by YEB I never spent a single day with the firm! When I questioned this I was simply told that my file must have been put in the wrong drawer. On balance this was probably a good thing as it resulted in 31 years at Hinkley Point!

THEN & NOW :- NOW.

Recently I joined a local IET visit to Eggborough Power Station. Visitors are not normally allowed and there are lots of precautions against possible thieves or protesters. We watched a safety video and had our photographs taken before we could be taken to reception. We heard a very interesting talk on the difficulties of reducing flue gas emissions: dust, sulphur and NOx. The plant consists of 4 boiler and turbo-alternator units of 500MW output each. Two of the units have fuel monitoring equipment fitted so the fuel has to be chosen with care to avoid contravening the rules.

We were kitted out with safety boots (heavy and uncomfortable), boiler suites, safety helmets, ear-defenders, safety goggles, hi-vis jackets and rubber gloves. This kit slowed us down quite a lot. Our first visit was to the coal stock yards. Most of the coal was Colombian or Russian. (Although we were only a few miles from Kellingley Colliery its coal was unsuitable). Next to the coal yard was an immense bio-fuels indoor store. At present it was full of ground squeezed olives.

We then went to the top of the boilers - hot, dirty and noisy- and worked our way down to the turbine hall and the control room. It is the largest control-room I have ever seen with little automation of the control systems. It seemed that the plant is frequently used by National Grid to assist in frequency control which is becoming a little more difficult with the advent of wind-power.

In future it is proposed to fit flue-gas treatment equipment to all the units and to convert the boilers to run on 100% bio fuels, expected to be wood from Canada, imported via Redcar or Immingham Docks. This will require indoor storage and covered rail-wagons to keep it dry. Apparently new burners will be required throughout. All this is to keep within national and international limitations on emissions and presents formidable engineering challenges for power stations.

After a lunch we all departed, full of admiration for Eggborough staff in coping with all the changing constraints. Eggborough is a private concern owned by Eggborough Investors. (Nearby Drax is also a private concern and stock-market listed). Eggborough was once owned by British Energy and was used to cover for reactor outages in BE's nuclear plants - thus saving financial penalties. As I left I noticed that the Sports & Social Club offers its facilities for public use - including weddings! I mentioned this to my wife but she seemed to think there were better places to get wed.

How pleasant is retirement!

Colin Hill
Our man up North

SOLAR ENERGY TALK REVIEW

On Thursday 22nd November 38 members and guests assembled at The Westbury Park Tavern (under new management) for an excellent buffet lunch and chat.

Afterwards we moved to the meeting room at Cairns Road for a talk on solar energy. Our Chairman, David Hole introduced our speakers, Kerry Burns and James Guthrie, from Solarsense. This is a firm located at Brockley, near Backwell, which specialises in aspects of renewable energy.

Kerry Burns explained that the talk today would concentrate on solar energy. There are four ages of solar energy, Mono and Poly Crystallite, Amorphous Thin Film, Hybrid and CIGS. Mono and Poly Crystallite Technology is based on Titanium Dioxide with Organic dye. Early solar assemblies were complex to manufacture and were expensive, their original use was limited to space and special applications. Improvements in design and manufacture have reduced the cost considerably. Amorphous Thin Film and Hybrid enables the material to be manufactured in rolls and reduces the time and cost considerably. CIGS based on Copper, Indium, Gallium and Selenium are a more recent development.

Kerry went on to explain how the solar material is assembled onto panels and mounted on frames for attachment to structures or buildings. The inverters and power conditioning equipment is positioned within the building, often in the loft. Since the panels only provide power during daylight it is necessary to either provide batteries for storage or rely on the mains supply. For this reason the supply companies treat renewables as demand since they have to allocate generation to cover their loss.

James Guthrie described the installation techniques noting that care is taken to minimise any aerofoil effect due to the gap between the panels and the roof and that the array is firmly secured. The size of the array which can be fitted is determined by the area available and the cost. A typical 4kW installation could cost £6,000.

Kerry discussed future developments such as integrating the panels with the structure of the building, ideal for new construction. It is estimated that the panels would have a life of 25 years and the inverters a life of 10 years. The panel array would possibly need cleaning after 10 years. A lively question and answer session followed, after which tea and biscuits were served. Altogether an excellent talk by two keen and knowledgeable people, and a very good day out. Many thanks to Peter Lamb for organising it.

John Gale

Solarsense have offered members 5% discount.

RAIL CONVERSION?

It is reported that consideration is being given to removing the third electrified rail on the South East rail systems i.e. by converting them to an overhead system. A Government backed initial project is to go ahead in Hampshire and was also stated that "The Secretary of State wishes the industry to develop a long term proposition and business case for the systematic upgrade from DC to AC".

WIND TURBINE BUSINESS

The biggest wind turbine manufacturer is Vesta, a Danish firm, who are giving mixed messages to the public. It was reported in May that they had chosen Sheerness as their site for building the largest wind turbines for the North Sea installations. Then in November it was reported that the firm was having difficulties desperately trying to *unwind* the previous expansion plans, which necessitated laying off workers. They are intending to slim down their global work force from 19,000 to 16,000. However there would be no production hitches with the new giant 8MW turbines, the Worlds largest at 187 metres high and with 80 metre long blades.

NEW WIND FARM

A surprising story appeared in the press recently. A 22 turbine wind-farm comprising of 80m masts and 45m blades had been approved by the local authority at Heckington Fen in Lincolnshire, because they had not received any objections locally or from English Heritage or Natural England or RSPB. The developers said it was an ideal site!!

INDIAN GREEN INITIATIVES

British firms are planning hundreds of wind turbines in the Indian Province of Gujarat. With the State government offering wind farm investors a tempting package of cheap land, guaranteed prices and a quick approval time of six months compared with a couple of years in Britain. The British listed companies, Mytrah and Greenko, claim that building wind farms in India can be done at half the costs than in the UK. A further advantage is that India is acutely short of power of course. Another British firm Aggreko, which sells portable generators, is also doing a roaring trade there. The Indian State of Gujarat also boasts of the largest solar power farm spanning 3000 acres producing 214 MW in the World beating China's Golmud Solar Park (200MW).

LAKE GARDA



On holiday at Lake Garda this Summer I was delighted to come across a hydro-electric scheme near Riva at the northern end of the Lake. It is called Ponale Hydro-electric Power Station and surprisingly it was installed as long ago as 1929 and was the pride and joy of Mussolini. It looked pretty large, however it was listed as 2 X 22MW Pelton turbines coupled to 2 X 25MW alternators made by Sulzer, Escher Wyss.

Peter Lamb

DC VERSUS AC – or – EDISON v TESLA

John Haynes is reviewing a book "**Brilliance**" by Anthony McCarten, a New Zealand author now living in the Cotswolds. Although it is described as a novel, it accurately portrays the legendary rivalry between Thomas Edison and Nickola Tesla, originally from Croatia, namely the "war of the currents".

Having worked hard for Edison, Tesla is treated shabbily when, (in the mid-1880's), he presented to his boss the conclusion that AC was superior to DC for the transmission of electrical power. As Edison already had 121 DC power stations operating in the United States, he was certainly not going to agree with this conclusion. Tesla was sacked!

Tesla was a genius and fought back when Edison began a propaganda battle to convince everyone that AC was lethal and that DC was superior. In the war of the currents, Edison enlisted the help of the very rich banker, J. Pierpont Morgan, whilst Tesla received the backing of George Westinghouse. Sadly, one of the outcomes of the confrontation was the electrocution of an elephant and other animals, followed by the invention of the electric chair. The story, as written by McCarten, features the two wives of Edison, both of whom could communicate with their very deaf husband using Morse Code. His children, according to the author, were nicknamed 'Dot' and 'Dash'.

An interesting incident related in the book is when Pierpont Morgan persuaded Edison to install electricity in his Madison Avenue mansion - a world first. Four days after the stunning party arranged by Morgan to show off the new lighting, an electrical fire destroyed rooms with many priceless pictures and books being burnt.

The novel is not written consecutively, but weaves back and forth through the different stages of Edison's life (1847 -1931). He progressed from being an inventor with limited funds, to become a rich industrialist under the guidance of Pierpont Morgan. He is mainly remembered for the development of the incandescent lamp bulb. Tesla, worked for Westinghouse on AC motors and transformers, and independently experimented in x-rays and radio-communications.

Sadly, he proved to be a hopeless businessman, and died at the age of 87 in 1943, in a shabby New York hotel. In 1960, the SI unit for magnetic field strength, was renamed the 'Tesla' in honour of his many ground-breaking achievements. *John Haynes*

OXFORD CAR PROJECT

This year the Government has been offering £5,000 grant to buy an electric vehicle, but the take-up has been poor with only 1276 taking up the offer. In Oxford a combined effort of private initiative and local authority finance has kick-started a revolution establishing 60 public charging points in the City with more to come up to 100 by the year end. The company behind the installations are ChargeMaster. The City will have more charging points than garages and they are calling themselves the electric car capital of Europe. Brave words indeed!!

ON AN IRISH STATION PLATFORM



Graham Warburton noticed this funny situation where the notice says "**Danger : Trains may pass at speed**" alongside the buffers!!

DAVID REES PASSES OUT

The funeral of member David Rees was held at the lovely Anglican Church at St Martins by Looe, which was packed with family and ex colleagues. The service was very reflective with eulogies given by various people. I had only met David a couple of times over the years and I was amazed at the range of his interests that were alluded to and would have liked to have enjoyed his company more to delve deeper into these and his work experiences abroad. One unusual part of the service was when a model was shown, which David had started to build with his grandson and the young lad had finished it as a tribute to his granddad. *John West*

FIRST TELEVISION

Mike Wreford sent an old newspaper cutting from the Farmer & Breeder, Nov. 18th 1935, which is funny now:- The title : "**When We All Have Television**", it will not be yet and we will still need our listening sets. It is quite a long article explaining about two types of transmission, Low definition and High Definition. It stated that the first station would be at Alexandra Palace and due to the short range anyone living more than 30 miles away will be able to receive it. A quote from it is as follows : "Some people who ought to know better have stated that present receivers will be obsolete as soon as television appeared. You can take it from me that they will not. For many years television is not going to be part of ordinary broadcasting, it is going to be something quite separate".

FOR YOUR DIARIES – COMING EVENTS

Sat. 23rd Mar. AGM AT TAUNTON + TALK

AGM at WPD Training Centre at 11.00am. Lunch afterwards 12.15pm at the Merry Monk Inn, with John Dike presentation at 2.00pm. "A Hard Night for Bristol Corporation Electricity Department on Good Friday 11th April 1941".

Sat, 18th May VISIT TO COLYTON – A guided tour of Colyton in the morning, a pub lunch, followed by a historical tram ride in the afternoon from Colyton to Seaton and return.

NEXT EDITION - This newsletter is produced every four months. Please send articles, photographs etc to :- Peter Lamb 35 Station Rd, Backwell, Bristol BS48 3NH Tel: 01275 463160 or lambpandv@btinternet.com