

# HISTELEEC NEWS

NEWSLETTER OF THE SOUTH WESTERN ELECTRICITY HISTORICAL SOCIETY

Web Site : [www.swehs.co.uk](http://www.swehs.co.uk)

No. 48

AUGUST 2011

## AGM PRESENTATION

If you are wondering what is the latest situation on the 400kV line between Bridgwater and Avonmouth and are still wondering next year, come to the National Grid presentation at our AGM on Saturday 24<sup>th</sup> March 2012, since they have agreed to bring us up-to-date then at WPD Training Centre, Taunton.

## SMART METER PROBLEMS?

The Department of Energy & Climate Change is rolling out a programme for installing smart meters in every home by 2019, which will cost £11.3 billion. The spending watch-dog The Audit Office says there are substantial risks of the programme going awry. On a large trial installation there were doubts about the validity of the results. The trial indicated that households with smart meters would use 2.8% less electricity, but of course the trial households were pretty keen and the average UK household may not have that same zealotry to achieve such a reduction! Also price rises could increase the cost by 60%.

## GE MOVING INTO THE UK

The American conglomerate General Electric (GE) has decided to expand its operations in the UK by buying up thriving technical businesses and stamping their imprint on them. To date they have bought Smith's Aerospace, Wellstream and Amersham Healthcare. Their intentions are to expand the businesses within the UK, for example Amersham Healthcare has become GE's Headquarters for their healthcare operations which includes research and manufacturing of medical equipment. For history buffs this is nothing new, many are probably unaware that BTH was a subsidiary of GE in the early days of traction development and grabbed the UK tram market. Thomson Houston had set up the factory in Rugby in 1902 making American patented DC traction equipment and then of course Thomson Houston amalgamated with Edison Electric to form GE.

## WIND FARM CHALLENGE

A couple in Lincolnshire are challenging a wind farm near their property in the High Court. The noise is disturbing their sleep with the swishing and low frequency humming continually, and occasionally whoom, whoom! The technical term for these noises is "amplitude modulation" and the industry trade body RenewableUK has commissioned a study into the phenomenon. Will this be another setback for the wind-farm industry in this Country?

## SOLAR PANELS ECONOMICS

Have you noticed that a few households around you are investing in solar Photovoltaic (PV) panels; they are pretty obvious on south facing roofs. Some of my friends have had quotes and are dithering. Might well they do so, according to the Money Mail supplement to the Daily Mail dated 6<sup>th</sup> July 2011.

One installation can cost in the region of £16,000 and you may be lucky to get back £1500 a year with a pay back period of 10 years. An investigation by consumer watchdog "Which?" has found that many firms, who are selling solar panels, are overestimating how much energy the panels would produce. The Energy Saving Trust (EST) has revised its estimate of the proportion of energy generated that is used in the home. If 25% of the energy generated is used by the householder, then 75% is sold back to their supplier, but of course at night and on cloudy days when the panels aren't producing any electricity, the consumer must pay out for his energy.

I have had two "cold" callers to date, so the pressure is on. I was told that the PV panels will last 25 years, but will they – bird muck could tarnish them within 5 years? According to the article 45,000 homes have already invested in these panels, so it will be interesting to see in 12 months time the financial outcome.

## INTERCONNECTORS

The Energy Minister, Charles Hendry has got his officials working on a very imaginative scenario for the future where Britain would have more undersea cable connectors with other European countries. No mention was made from where the vast amount of money required would come? Two countries were mentioned specifically Iceland and Norway. The Icelandic cable costing more than £1 billion would enable that country to sell us cheap geothermal energy obtained from 200 volcanoes and 600 hot springs. The Norwegian cable would enable that country to sell us cheap hydro-energy and it was suggested that we could be sending wind energy back in the reverse direction. To my surprise, the article in the Times also mentioned that we already have three undersea connectors, one to France, which we all know about, a second to Northern Ireland and a third to the Netherlands.

## ISLES OF SCILLY

It is hoped you enjoy the supplement by John Haynes. Anyone interested in researching the origins of the generating station there, since we have no information?

## **SWEHS MUSEUM & ARCHIVE CENTRE**

“CAIRNS ROAD” – One of the many favourite expressions uttered by Mr H.P. Bearcroft (Hubert as we later discovered, but dared not call him by this name) to Student Engineers joining Bristol Group of SWEB in the 1950’s. The famous CAIRNS ROAD was discovered on our first visit later to be a typical city centre 33/11KV primary substation – in Bristol they were known as Distribution Centres, abbreviated to DC which to my purist GCE O Level brain meant direct current – more confusion as I knew all transformation equipment operated on alternating current!

Anyway back to the plot – contained within Cairns Road DC were a number of large outdoor transformers and reactors supplied by 33KV and controlled by 11KV switchgear situated in a red brick building, which also housed a control room for the remotely operated switchgear, the arrangement being standard for all DC’s throughout Bristol. Each of these control rooms had the most highly polished wooden floor and the only persons allowed to walk on the central polished area were the “Engineers”, that body of personages, who equated to gods in our eyes then. The setup was managed by a Substation Attendant, who ruled his domain with a rod of iron and woe betide anyone venturing to step on the polished area unjustly – the hoi-polloi had to traverse the control room via the unpolished alley around the back of the control panels. By this route we would access the 11KV switchgear rooms located at the rear of the building, a number of long narrowish rooms each containing a “section” of switchgear. The inside surface of each room ceiling and wall was home to cobwebs and dust collected since the previous decorating exercise many years earlier I suspect. Certainly cleaning of these areas was not part of the attendant’s job specification.

Fast forward now to 29th January 2011 and the Society’s Annual Lunch at Wells, when I discovered that the proposed visit in February to MV Balmoral was scheduled as a morning event only. Hoping to travel on this vessel with fellow members later in the year I was keen on attending the guided tour of the engine room etc., but could not justify the long haul from Cornwall for a morning visit only. Being very aware that in 16 years of SWEHS I had not yet visited the Society’s premises, I persuaded some of the stalwarts to include such a visit on the afternoon following The Balmoral tour.

So on 1st March, Merle and I, the only members taking up the offer, were led to CAIRNS ROAD by Roger Hughes and John Gale, lunching at the Westbury Park Tavern en route (two others tried to follow after their lunch, but failed to find it - no names to avoid total embarrassment – they know who they are!) What a delightful place CAIRNS ROAD CENTRE is nowadays. Entering from a side door we were immediately impressed by the light and airy atmosphere, a combination of white and red paintwork and not a trace of a cobweb. The electrical appliances and equipment on display are sparkingly clean and sited on wall mounted shelves around the periphery or floor standing down the centre of the room, previously one of the switch-rooms. Proceeding through an internal side door we were led

into the adjacent ex-switch-room that was – another very pleasant eye opener as this has been converted in the main to a lecture theatre in white and blue to match the old polished blue wall tiles. Hiding away at the far end of the two larger rooms were the Society’s two archive rooms and another door nearby led to a corridor from which I rekindled old memories of the kitchen and office that students were compelled to use for revision in the two weeks leading to our annual college exams – how well we were treated in those days!

The moral of this story is this – please do your best to get to CAIRNS ROAD as it really is an uplifting experience. Many thanks are due to the small band of members, some of whom are sadly past members, who have dedicated part of their retirement to transforming what was essentially an industrial location into our museum etc., and for this we should all feel very proud, not to mention the ongoing work and publicity aspects. Special thanks also to John and Roger for their conducted tour!

*John Ferrier*

## **BABBACOMBE DAY-OUT**

On May 14th 21 members and guests stepped back in time during a visit to "Bygones", a private museum at St. Marychurch near Babbacombe. It was put together by a couple starting with railway memorabilia in a 1920’s cinema. It is difficult to imagine what is inside this old building from the outside because it contains so much. There is a pub, old cobbled streets, Victorian shops, furnished rooms, model railways, model locomotives, railway memorabilia, a World War 1 trench, a FULL SIZE, 28 ton, steam locomotive (Falmouth Dock’s tank engine) and so much more! All of this is the collection of one family, found and collected over many years and presented in an old disused cinema. The truly amazing thing is that everything is so clean and ALL those active things, that should work, do work. After a brief introductory talk by one of the family, we spent the best part of 2 hours there and the probably missed half of it even then. A real treat if ever there was one!

A hearty pub lunch followed before we were met by our guide for a short history tour of Babbacombe Downs, mainly concentrating on how the hotels were used during the World War II for RAF training facilities and the bombing raid which killed so many children at the nearby church. The weather was kind to us so the view was, as usual, amazing. To see the scene today one would never imagine the place’s connection with the wartime and the terrible tragedy. We went on to our last visit, the Cliff Railway, which is run by a private charity, following the take-over from the local authority, who threatened to close it down. As I usually say in these reports, if you missed it, you missed a treat!

*David Hole*

## **RARE EARTH METALS**

These are making the news once again since China has been accused of restricting the sale of these minerals thus forcing up the price. The valuable minerals, which are involved in the manufacture of electronic equipment, are bauxite, fluorite, magnesium, yellow phosphorus and silicon carbide. China has a monopoly on these materials, since they are rarely found elsewhere at the moment.

## BRISTOL CHANNEL CRUISE

After last year's cruise was cancelled due to bad weather, it was with some trepidation that we looked forward to Friday 15<sup>th</sup> July especially as the weather forecasters were predicting rain and winds arriving in the south west later that day. However, the 33 members and guests, who booked were undaunted and all duly arrived at Clevedon Pier suitably dressed for whatever the weather. John Gale, who had arranged the day duly checked that we were all present and issued everyone with boarding cards.

The Balmoral arrived on time from Penarth and we were soon on our way down the Bristol Channel. The vessel can carry up to 784 passengers and has a service speed of around 12 knots (13.8 mph), although on the day there were around 135 passengers on board, so plenty of space and seats. For members who visited the ship in Bristol Harbour earlier in the year, it was an opportunity to see the refurbishment work that had been undertaken and now complete with the vessel in operation. Basil Stockbridge, who arranged that visit, was on board and was able to organise a visits to the bridge and engine room for those who wished to do so.



Members relaxing on deck as the Balmoral leaves Clevedon Pier

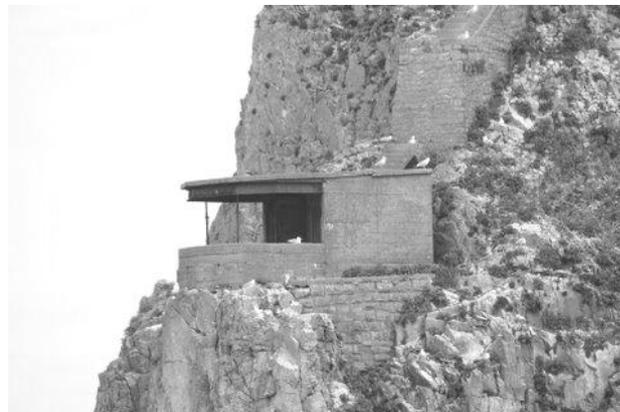
The Balmoral was launched from the Thorneycroft Shipyard at Southampton in June 1949 having been designed for use as a ferry between Southampton and Cowes. It was able to carry a very limited number of cars and also operate as an excursion ship. The increasing volume of cars being transported to the Isle of Wight led to the ship being withdrawn by Red Funnel Line in 1968 as it was no longer suitable. She was chartered to P & A Campbell for use in the Bristol Channel until withdrawn in 1979 due to increasing costs and work required. A new company White Funnel Steamers supported by the Landmark Trust operated the vessel until 1982 when she was laid up and offered for sale. Balmoral became a floating disco and restaurant for a short while in Dundee before being offered for sale again. After purchase on behalf of the Paddle Steamer Preservation Society, she was refitted in Glasgow before her inaugural cruise in the Bristol Channel in 1986. Much work is carried out during the winter months in Bristol and in winter of 2002/3 nearly £1m was spent on two new 6 cylinder 800hp Geenna engines (Danish) and on safety and passenger comfort improvements. The money was raised through many contributions including £3/4m from the Heritage Lottery Fund.

After passing along the North Somerset coast past Weston Super Mare and Brea Down, we sailed to the

islands of Steep Holm and Flat Holm circumnavigating them a number of times before heading to Penarth enjoying fair weather and a calm sea. By time we had reached Penarth the forecast rain had arrived making the walk back along Clevedon Pier to our cars a rather wet ending to the day.

It was however a very enjoyable and relaxing afternoon cruise and we thank John for arranging it and Basil for organising the on-board bridge and engine room visits.

*David Cousins*



One of many WW2 fortifications seen on Flat Holm

*Photos by Colin Ladd*

## DEVON COMMUNITY WIND CO-OPERATIVE

Energy4All was set up in 2002 by the UK's first renewable energy co-operative, Baywind, to replicate its successful business model throughout the UK. Now with a further seven renewable energy co-operatives established and generating clean green renewable energy, they are promoting Devon Community Wind Co-operative. Landowner and developer Clear Winds will, after considering feedback from a series of local meetings, shortly finalise plans for two small community owned projects (each of 2 x 750kW output), one near Bratton Fleming and the other near Totnes. Subject to planning approvals and satisfactory wind data from test masts, a prospectus will be issued inviting investment from members of the community. DCW Co-op will then build and operate the sites. For information on Energy4All and its family of Co-operatives together with links to the projects go to [www.energy4all.co.uk](http://www.energy4all.co.uk).

*Barrie Phillips*

## TRAIN MAKERS

A major order worth £1.5 billion for train carriages for Thameslink has been awarded to Siemens by the Department for Transport. This is a body blow to the UK's last train maker at Derby, Bombardier, a Canadian firm, which was originally British Rail Engineering Ltd (BERL), but has changed hands many times since privatisation. Many workers have been laid off and the future of the plant is in doubt. It seems there was a condition in the tender requiring the successful bidder to provide loan capital, which Bombardier were unable to satisfy. Manager of Derby County Football Club, Nigel Clough, son of Brian Clough, is mounting a campaign to get the decision reversed.

## RUSSIAN HOLIDAY

This year Glenys and I went on a visit to Russia on the river cruiser 'River Victoria' for thirteen days, starting with 3 days in Sankt Petersburg and ending in with 3 days in Moskva. Sankt Petersburg, the German name that Peter the Great used and the citizens of the city have chosen as its current name, Petrograd and Leningrad the Russian alternatives having been rejected, provided us with visits to the Hermitage, the Peter and Paul Fortress with the Romanov tombs, the Alexandrinsky Theatre for a ballet performance and finally in nearby Pushkin the Catherine Palace.

Catherine II's Palace at Tsarskoye Selo was ransacked by the German Army during the siege of Leningrad and left a smouldering shell in 1944. The outside of the palace is now restored as are many of the internal rooms though much work still is being done. This highly successful restoration of tsarist splendour was by the communist government of Stalin. They may well have improved on the original. There is an "Amber Room" which is extensively decorated with amber. This is no doubt due to the easier access to the basic raw material following the end of WW2.



We left St Petersburg via the Neva river to the lake Laatokka (the name I knew Ladoga by when I spent my summers with my grandparents pre-war \*) and then via the Svir river made our way to Lake Onega where we visited a church at Kihzi Island. Kihzi is museum of wooden architecture. Here we saw in detail the building of a wooden onion dome. The church with its multiple onion domes has stood on this site from the 15<sup>th</sup> century onwards. The church is wholly built of wood without the use of any paint as are all the buildings in Kihzi. The wood has to be replaced from time to time. Local craftsmen were working on it during our visit and we spent some time watching the laths for the dome being fashioned, using just an axe on pieces of 5x2 pine wood. Farmhouses, chapels, windmills and saunas all were open for inspection.

Leaving Kihzi our northernmost location and travelling south via the White Lake and Lake Rybinsk we visited Yaroslavl and saw there a cathedral church. The Russian Orthodox Church is very much alive now. We were not however prepared for the amount of medieval wall painting that is common here, nor the amount of ancient and new icons that exist in the churches. I also became aware of the total lack of representation of pain and

suffering, crucifixion and hell and damnation that typifies decorated western churches, who exercise emotional blackmail on any visitor.



The Russian church provides a heaven-on-earth compensating for the hard life outside. All is peace and beauty and the same as it always has been. Stalin did not succeed in destroying the medieval church art as efficiently as Henry VIII in England. Here churches were closed and turned into libraries or other uses, the icons were saved and now the buildings have reverted back to churches, the icons have been restored.

Continuing on our journey using the Volga River, (which we reached by courtesy of Peter the Great) we visited the city of Uglich and the church of St Dmitri (i.e. Prince Dmitri, who Boris Godunov might have murdered) Then on to the start of the Moskva canal (provided by courtesy of Stalin) to reach Moskva.

Here the Red Square, visited on our introductory tour of the city, was being prepared for a Pop Concert and was full of the necessary paraphernalia on a huge stage with rehearsals of massed dancers and loudspeakers in preparedness for the next days celebrations – The next day was Russia Day (they used to call it Independence Day like the Americans, but then they realised there was no one they had become independent from.) We visited the Kremlin, which was much larger than we had anticipated and with parkland gardens that we had not expected. The Cathedral and the Armoury with its Fabergé eggs were visited.

A tour of the Metro with the stations decorated in the style of people's temples was fascinating. Closing of the doors on the train was automatic by timer – it was your business not to get trapped. You also had to beware of the sign on the station – it could be M for metro or M for McDonalds. The final day spent at the Tretyakov Gallery with Russian art – paintings from all ages not seen in the west.

Returning home, our hosts dumped us off at the airport 5 hours before we were due to leave. BA's auto booking-in failed and BA staff were not yet at the airport. I obtained our seats by contacting BA London on the internet using my netbook. Eventually home.

**Marcus Palmén**

*\*(Marcus was born about 70 miles away in Karelia)*

## NUCLEAR DEBATE

With Germany's stated intention of closing down their nuclear facilities, it is not surprising that it has invoked a huge nuclear debate. It was good news to hear Mike Weightman, Chief Nuclear Inspector, announce that there is no reason to curtail the operation of the nuclear facilities in the UK. The German decision is amazing when you consider that the Country is surrounded by other countries committed to nuclear energy, viz., France, Belgium, Sweden, Poland (under construction), Czech Rep., Slovakia and Hungary. However most of the pundits seem to think that it will boost Germany's renewable industry of wind turbine and solar panels. Their nuclear slot is 29% of their total energy needs, greater than Britain's 18%, which would seem impractical to fill with renewables. It is a political manoeuvre and so it is equally feasible for there to be a political u-turn in the future.

## HYDROGEN FERRY

Bristol City Council has given an "Environmental Innovation of the Year Award" to Bristol Hydrogen Boats of £225,000. The firm is a consortium of two boat companies in the Harbour together with Auriga Energy. No details of the engine involved or how they are going to provide the fuel have been disclosed yet. It will be the UK's first hydrogen powered ferry and is scheduled to commence service in September.

## MORE GREEN ENERGY

A new firm Advanced Plasma Power (APP) is hoping to be in the vanguard of energy-from-waste technology. APP takes treated waste and through processes of separating organic and non-organic waste and gasification at high temperatures, breaks down the hydrocarbons into a hydrogen-rich synthetic gas and a residue, they have called "Plasmarok". The gas so produced can be used as an energy source, whereas the Plasmarok can be used as an aggregate. They are in discussions to build six plants in the UK.

## RURAL DEVELOPMENT 1952

Member Mike Wreford, as the local historian, has been handed some old newspapers in Okehampton where he lives. One newspaper, the Western Times had an article about SWEB's rural development programme 59 years ago. In that year 1174 farms were connected up 60% on the previous year. The report was related to a meeting of the Consultative Council at Exeter, when the Chairman, Mr SF Steward addressed the meeting. He said that a new consumer was being connected every five minutes during working hours!!

## NEW TRAM BOOK

A member of the Tramway & Light Railway Society, Roy Anderson has written a new book on the "Plymouth & Torquay Tramways" in the Tramway Classics series. Published by Middleton Press.

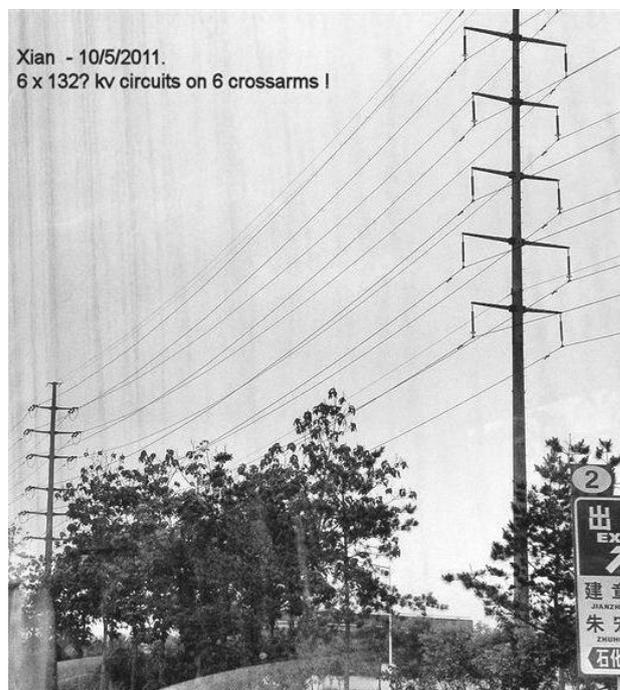
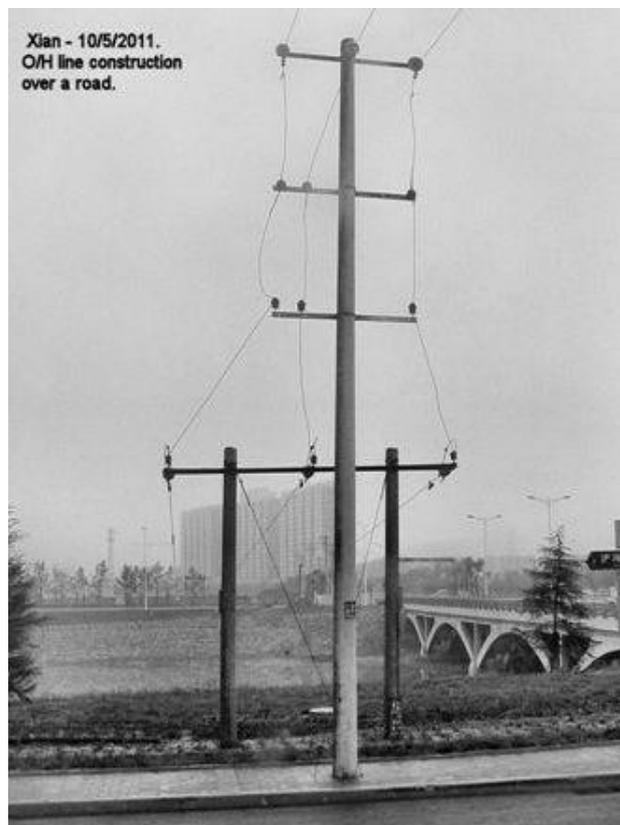
## POWER LINE THEFTS

Still the Distribution companies and Network Rail are plagued with copper thefts. Not surprising given that copper prices have doubled in two years from \$5,000 per tonne to \$10,000 per tonne.

## HAVEN ROAD LATEST

Dick Passmore, who wrote the book recently about Exeter's Haven Road Power Station, has informed us that the development of the building is going ahead and the current plan is to convert the interior turbine hall into a Leisure Centre with a climbing wall and outdoor play equipment installed for children and adults. The conversion should be complete by this Autumn.

## CHINA'S GRID SYSTEM?



Photos by Graham Warburton

## DOWSING

*Here is web site message received recently:-*

“Hello Peter. My name is Phil Hopkins. I googled the name H J Dowsing and came up with a link to your Society's page. I have spent several years researching the automobile connection of Herbert Dowsing. He patented the Electric Starter, or really more than this it was the first hybrid power motorcar in 1897. (Toyota eat your heart out) The car which he owned still exists though the starter was removed long ago, certainly before 1930. I have been trying to find a picture of HJ and wonder if you have such a thing in your archive or can direct me to where one is located. I have a scrapbook or photo album, which was compiled by the man who bought the car from Louisa Dowsing in 1931 when HJ passed away. I presented a talk to my local motorcycle club and to the local section of the Veteran Car Club. I am still researching and adding to the talk and have now given it to around a dozen clubs and societies in my area. I would dearly love to find a picture of this amazing man. Can you help me please? Regards Phil Hopkins.” *Mr Dowsing is well-known for inventing the Sausage Fire in 1896, so called because the fire with four red coloured stretched filament lamps looked like red-hot sausages!!*

## WHISKY POWER

The residue from the whisky distilling industry at Speyside will be used to power as many as 16,000 homes. Helius Energy has signed a deal with seven distilleries to build a 7 MW biomass mini-power station at Rothes between the Highlands and the Moray Firth costing £60 million. It is supposed to be up and running by 2013. Charge-engineers may be drunk-in-charge!

## PADDINGTON POEM 1888

The initial arc lighting installation at the GWR Terminus in the 1880's wasn't as popular as it was for street lighting in those days, as shown in this poem published then in the St.James Gazette.

Twinkle, twinkle, little Arc,  
Sickly, blue uncertain spark;  
Up above my head you swing,  
Ugly, strange, expensive thing.

Now the flaring gas is gone.  
From the realms of Paddington,  
You must show your quivering light.  
Twinkle, blinkle, left and right.

Cold, unlovely, blinding star,  
I've no notion what you are,  
How your wondrous "system" works,  
Who controls its jumps and jerks

Though your light perchance surpass,  
Homely oil or vulgar gas,  
Still, (I close with this remark),  
I detest you, little Arc.

Reprinted from a new book “Domesticating Electricity 1880-1914” by Graeme Gooday, Professor of History & Philosophy of Science at Leeds University, published 2008.

## MEMBERS NEWS

Terry Holtom - Terry has undergone three operations for cancer and at last is making good progress. He wishes to be remembered to all his friends and we wish him well.  
Mike Wreford – Mike has been given lots of old newspapers and is enjoying rummaging through them.  
Tom Sherrif – Tom, who does overseas consultancy work and has written many articles in this newsletter about his work in Pakistan, has been recalled to that Country.  
Marcus Palmen – has been to Russia, see article.  
Graham Warburton – He and his wife have been to China recently on the same trip that Marcus did last year – see photos of unusual power lines on page 5.  
Clive Goodman - There's no truth in the rumour that Clive Goodman, our treasurer, has been hacking on behalf of the Society!!

## PASSING OUT

Life Member Charles Isherwood has died aged 93 in a Portishead nursing home in July. He was a great supporter of the Society coming to our many events in the early days and due to his continued support we made him a life member on his 90<sup>th</sup> birthday. As a SWEB manager he was a very popular man and probably the most charming any of us encountered in our careers.  
John Ashton, past member has also died. When our Museum was set up, he used his architectural skills to design smart wall display shelving for the smaller appliances and he with others built them. With such success, we were sorry when he duly left the Society!

## FOR YOUR DIARIES – COMING EVENTS

**Thur. 29<sup>th</sup> Sept. MEETING CAIRNS ROAD - TALK “BRUNEL IN 21<sup>st</sup> CENTURY”** – by Will Harris  
2.00pm Talk at Cairns Road, Redland, Bristol – Buffet Lunch beforehand at a local pub at 12.00noon

**Wed. 19<sup>th</sup> Oct. PLYMOUTH LANGAGE POWER STATION and SALTRAM HOUSE**– Morning guided tour of new Generating Station (limited to 20), then on to Saltram House (NT property) for booked lunch followed by afternoon leisure exploring the house and gardens.

**Sat. 19<sup>th</sup> Nov. “INLAND WATERWAYS OF ENGLAND & WALES”**- Talk by Bernard Hughes OBE  
2.00pm Talk at the Nutwell Lodge Hotel, Lympstone, Devon - Lunch before at the same location 12.00noon

**Sat. 28<sup>th</sup> Jan. ANNUAL LUNCHEON – EXETER**  
At the Devon Hotel, Matford, Old Exeter Bypass. After Lunch talk “RNLI” by Matt McLaren.

**Sat. 24<sup>th</sup> Mar. AGM AT TAUNTON + SPEAKER from National Grid on HINKLEY CONNECTION**  
at WPD Training Centre at 11.00am. Lunch afterwards 12.15pm at the Merry Monk Inn, with presentation by NG at 2.00pm. - - - NOTE NEW FORMAT.

**NEXT EDITION** - This newsletter is produced every four months. Please send articles, photographs etc to :- Peter Lamb 35 Station Rd, Backwell, Bristol BS48 3NH or telephone on 01275 463160 or e-mail him on [lambpandv@btinternet.com](mailto:lambpandv@btinternet.com)