

# HISTELEC NEWS

NEWSLETTER OF THE SOUTH WESTERN ELECTRICITY HISTORICAL SOCIETY

No. 28

DECEMBER 2004

## *HAPPY NEW YEAR*

No doubt everyone will have had a gastronomic Christmas, but leave some space for the Annual Luncheon at the Batch Country Hotel on 29<sup>th</sup> January.

## THE OPEN DAY THAT NEVER WAS!

It was very disappointing to all who have worked so hard on the Cairns Road Project, for the Open day to be cancelled at the last moment due to public protests at the site against a proposed erection of a telecoms mast for T-Mobile. There had been demonstrations on the previous Saturday, making it onto Radio Bristol News and we didn't want to get embroiled in a public demonstration with the demonstrators thinking we were WPD staff. After conferring with WPD, it was decided to postpone the event. It will be reconvened in the New Year.

## NEWTON ABBOT TEST STATION

Some of you will be unaware that the Meter Test Station has closed this Autumn, with WPD centering their meter testing at the Cardiff depot (Lamby Way).

We had a call to rescue much of the old meters and instruments from display cabinets at Newton Abbot. Your Chairman, Chris Buck visited twice taking Roger Hughes with him the second time, when they filled two cars with instruments, including one of the cabinets, which they had dismantled.

## SUSSEX-BY-THE-SEA

Following the notice asking members to sign up for the Sussex Holiday, staying at the Beach Hotel, Worthing, we have only 30 people enlisted. We only had 37 at the Cornwall Holiday this year, so it would appear that the interest in Weekends Away is waning. A further notice will be sent out in the Spring to encourage a few more to come on board.

## BATH CITY OLD SWEB OFFICES

Plans are afoot to redevelop the site at Dorchester Street again. It was first mooted about 14 years ago. Now a group have got together to save the 1930's building. Interestingly the building seems to go under the title "Churchill House", after the adjacent bridge presumably

## SPECIAL SUPPLEMENT

To celebrate our tenth anniversary this year, please find appended the SWEB Chronology.

## CENTENARY OF THE THERMIONIC VALVE

In Sidmouth recently an exhibition has been open to the public at the Observatory to celebrate the life of Sir John Ambrose Fleming, electrical engineer of some note, who invented the thermionic valve, and patented it in 1904.

Born in Lancaster he trained at University College, London and obtained a post as Professor at Nottingham. Later he worked for Edison Electric Light Co., in London on the Holborn Viaduct in the 1880's. He then worked for Marconi at Poldhu and was a popular consultant in the West Country advising both Exeter and Taunton Undertakings. He retired to Sidmouth, where is buried.

The modern world of electronics was created using thermionic valves (now replaced by the silicon chip). This came about due to Edison trying to rid the globe of his electric lamp of carbon particles. He placed a third connection in the lamp as an electrode to prevent this, creating what was known as the "Edison Effect". Edison failed to study this phenomenon further. Fleming experimented with this and found with an AC circuit, a DC supplementary current was created, which could be used to detect radio signals. Thus was born the rectifying valve, which was used in wireless/radio sets for half a century at least.

## CAIRNS ROAD VISITORS

Recently members, Glyn England and Steve Marshall, visited Cairns Road by appointment. If any other member wishes to do the same I am sure it can be arranged.



## CAIRNS ROAD VISITOR 2

Ted Luscombe visited Cairns Road the other day travelling from Plymouth, since he is unable to visit there regularly: he said "I was surprised at what has been achieved there by the hard work of a relatively few of our members". He continues "The Museum room contains a fascinating, well arranged, display of all types of electrical apparatus dating from the earliest days of electricity supply. There is a comprehensive collection of archival material relating to the South West; the Library has an ever growing collection of books, Garckes manuals and early electrical journals, any of which can be borrowed by members. There is a large meeting room, kitchen, toilet, all recently decorated by the hard working members. All very conducive for undertaking research!"

## PLASTIC HISTORY SOCIETY VISIT

We were very pleased to entertain the Plastic History Society at Cairns Road recently. It was the first meeting in the new Cairns Road Meeting Room, which was small comfort for the cancelled Open Day there. Peter Lamb gave them a talk entitled "Household Electrical Appliances of a Bygone Age", which was well received.

## CRADLE GUARDS CONTINUED

*A response by Andy King of WPD to Graham Warburton's article in issue no 24 :-*

Cradle Guards were required by the Overhead Line Regulations, which were first issued by the Electricity Commissioners as their memo no 53, dated 1931. Regulation 18 required that:-

"18 (2) In the case of a line erected across a public road, canal or railway there shall be provided-

- (a) duplicate insulators for supporting the line conductor and a device to ensure that in the event of a line conductor falling, it shall be put to earth; or
- (b) duplicate insulators supporting duplicate conductors tied at intervals not exceeding five feet; or
- (c) other means approved by the Commissioners."

The same clause is in the 1947 Regulations. This clause was removed from the 1970 version. I think that by that time Sensitive Earth Fault protection was in use on overhead circuits, and an earthed cradle guard was no longer necessary to ensure that the circuit breaker would trip in most cases.

The 1961 Master Wayleave Agreement between the BTC and SWEB requires either insulated conductors or a cradle guard to be used for all 11 and 33 kV crossings. The early PO requirements for protection of their telecomms circuits, which at that time were bare wire, also require the use of cradle guards. I admit to getting the cradle guard removed from the 33 kV line at Holford and Williton - they were getting very rusty! All the 33 kV tower lines out of Bridgwater Main built in 1935 have now been reconducted and should be good for another 70 years service with occasional painting. Recently therere still twin conductors tied at intervals across the WSR level crossing at Blue Anchor.

I hope you are keeping well. *Regards Andy*

## NEWCASTLE EMLYN

We were approached recently about a local campaign in South Wales to help save an old hydro-scheme at Newcastle Emlyn. Members Michael Williams (from Nottingham) and Bill Harris (from Penarth) have both sent details. Bill's is quite a considerable archive. I will briefly give you some details :-

Supply commenced in 1909 from hydro-generation on the River Teifi with a dynamo driven by a Gilkes water turbine. The electrical system was designed by an engineer, J.R Parkington, who came originally from Ipswich and had set up in business as an electrical engineer in Swansea. The generating station was housed in a disused Corn Mill, which already had a weir and a mill-race in existence. The first supplies were given to the street lighting system, but eventually the demand exceeded the capacity of the dynamos. It is said that battery banks were installed in order to supply a greater load, which wouldn't achieve a great deal, so it is not surprising that later Diesels sets were added.



**Newcastle Emlyn Generating Station with JRP 1910**

Ken Jones, a local historian, has deposited copies of written material and twelve photographs. Two of the photos are reproduced here.



**JRP giving an appliance Demo 1910**

## SALISBURY ELECTRIC LIGHTING & SUPPLY COMPANY

The Society helped a Mr. Coe of Salisbury to trace the history of the Salisbury Electric Lighting and Supply Company. As with many of the old companies, most of the local records had been lost in the run-up to privatization. However some useful information was available in our copies of Garcke's Manual and the Edmundson's Monthly magazine. *John Gale*

## CORNWALL WEEKEND

The Weekend Away in Cornwall at the beginning of October was enjoyed by 37 members and partners. The St. Michaels Hotel was very comfortable, even if the present fashion of minimal soft furnishings did make for some rather high levels of background noise. However, the staff were very helpful and friendly and the meals very pleasant, helped, no doubt by the company and the fact that we had a separate room to eat and socialize in.

The first days activities began with a visit to Goonhilly Satellite Earth Station. The weather was damp and grey and set a very sombre backdrop for the imposing aerial structures around the site. The strength of the wind on the day could only leave one guessing at the forces, which must have been acting on the largest dish which stands 46 metres high. Inside the Visitor Centre, the displays and presentations were highly professional and most interesting. However, it was the tour of the site, which comprises some 60 aerial dishes, which really brought home the scale of the operation there and just how much communications technology has moved on since the first dish, which weighs over 1000 tonnes, received the first live television signals via satellite from the USA in 1962.

The afternoon visit to the Telegraph Museum at Porthcurno took us back some 70 years before that momentous event to the time when the telegraph cables linking Great Britain first to India and then progressively to the rest of the world made land here. The museum contained a great deal of fascinating telegraphic and communication equipment but was also of considerable interest because of its location in a secret wartime communications bunker. Added to this there was an intriguing glimpse of the way life and work must have been for the men and women posted to this remote and very isolated spot in the 19<sup>th</sup> and 20<sup>th</sup> centuries.

Sunday morning's visit to the Geevor Tin Mine was undoubtedly the highlight of the weekend for me. The Mine originated 200 years ago and closed in 1990. We visited the air compressor house - which supplied air for the underground workings- some surprisingly large machines, and the main winding house via the site's 11kV intake. Again a large modern electric mine winder of BTH manufacture with the apparent ability to wind the two cages in the shaft independently. The mine is very deep - going down to some 650 metres and extending over some three square miles. The way in which the equipment, mine workings and pit head facilities have been preserved left one with the feeling that the silence was only a temporary lull in the clamour of a working day and that the miners could soon return. However the whole mine is now flooded up to sea level. The guided tour was absorbing and the conditions endured by tin miners over the ages could only be wondered at.

It had been intended to go to St Michaels Mount during the afternoon. However, the weather was not in our favour and the ferry could not sail. We went instead on a visit to St Ives, exploring the gift shops, cafes and some to the Tate Modern Gallery .

A splendid weekend - a pity about the weather- a very big

thank you to the South Sub-Committee and especially John Ferrier, who undertook the bulk of the organising.  
*Contributions by David Peacock & Roger Hughes*

## FAMILY HISTORY TALK

On a very bleak Saturday (weather-wise) some twenty members and guests assembled at Clarence House, Portishead, for a roast lunch followed by a talk on "Family history – fact or fiction" – given by our guest speaker Pat Hase, currently chairperson of the Weston-super-Mare Family History Society. Pat started by explaining the reason for the title of her talk. Whilst family history research involved delving into past records, the dates and other information appearing on birth, marriage and death certificates of long ago often revealed inconsistencies, as evidenced by searches into her own family history. Names often changed over the years, taking a different spelling – maybe because a vicar at a christening was hard of hearing or many people simply could not read or write. In the case of her own surname 'Hase', she had a list of over 20 variations.

Pat revealed that her father had had a link with SWEB, working for a contractor in the construction of the new Avonbank Offices. He had told her about some urgent work that needed to be done just prior to the official opening. He was asked to get some green paint and go to Avonbank. He was told to paint over the dead bits of some trees that had recently been planted along the side of the entrance path! Peter Lamb has confirmed this.

Pat emphasised that to research properly, one had to start with the present and work back generation by generation. Whilst someone with the surname of 'Drake' might like to prove their connection with 'Sir Francis' and try to work forward from him, that was not the way to do it! She recounted a story of an American lady that once came to her proudly proclaiming that she had traced her ancestors back to the Norman conquest. On being congratulated on this wonderful feat by Pat, the American replied that she had a problem with a 100 years gap!

Pat kept us enthralled for over an hour with an amusing account of investigations into her own family history, also showing how one could at the same time learn a lot about the local history of the day, including an event that particularly affected the family. One morning during the WW2, her mother was to take her, as a small girl, by bus from the Bristol suburbs to visit family members at Broad Weir. As small children are wont to do, on reaching the bus stop, she then decided she needed the toilet, so a rather irate mum took her home, so that they missed the bus. They heard the air raid sirens go and saw a German plane come over, which dropped bombs on three buses in Broad Weir, causing much devastation and many fatalities. One of the buses was thrown against the house they were going to, causing considerable damage to the extent that it later had to be demolished.

One measure of the interest shown in the talk was that no one nodded off! In fact I am sure that many of us were inspired to go home and make a start researching our own families histories.  
*Chris Buck*

## PORTUGUESE MUSEUMS

There must be something special about electricity and the Portuguese, since they seem pretty keen on electricity museums. Member, Bill Tincknell visited Lisbon and found an incredibly large museum centred around a disused power station. Peter Lamb visited Madeira and found a large electricity museum right on the front in the capital Funchal.

LISBON – Bill sent the brochure to us, but unfortunately it is only in Portuguese. It would appear that generation commenced there in 1891, although a more substantial station was constructed in 1908. No mention is given of the plant used, although from the drawings the prime movers are obviously steam engines.



**Lisbon Electricity Museum**

MADEIRA (FUNCHAL) – First supply was given in 1897 using steam engines. Later in 1923 the prime movers were replaced by diesel engines, which are on display. These are two Mirrlees, Bickerton & Day Ltd (1188BHP & 1548BHP) and one Ruston Hornsby Ltd. 114kW Set, all driving Brush alternators. All the plant and instruments on display are British. The Museum is on the site of the first generating station, and this has been replaced with an office block incorporating the Electricity Museum.

Both Museums are well-worth visiting. By coincidence Peter and his wife were accompanied on the plane by two other ex-SWEB engineers, Roger Neck and Roger Clouter. Roger N found the Museum, but Roger C did not – surprising since he's a regular visitor. Since then, John Coneybeare has been to Madeira and found the Museum.

## AUSTRALIAN MUSEUMS

Member, Eric Clapton has been visiting Australia and since he is very interested in the history of electricity generation and supply, has found a few things of interest. He visited the Jenolan Caves in the Blue Mountains and down a nearby valley were the remains of the first generator (about 1880's). This was the electric lighting for the caves, which was very popular in Victorian times. This was superseded with a larger system further down the valley in the 1920's. This has been retained as a museum piece with the original generators and switchgear still there. This with the added attraction of the kangaroos and birds was more interesting than the caves! Also whilst in Sydney, he visited the Powerhouse Museum – which he described as a must! It included a C.A.Parsons turbine/generating set.

## ELECTRICAL INSTALLATION UPDATE

IEE members will be aware of recent developments that will affect those of us who like to do our own electrical installation work. For the benefit of others who may have an interest, I summarise these important changes.

First, as a further part of EU harmonisation the core colours, for the fixed wiring in building electrical installations, are changing. For many years, the standard UK colours have been red, yellow and blue for the three phases, with black for the neutral conductor although, historically, other phase notations have been used on the distribution system, e.g. red, blue and green. The new colours are brown, black and grey, with blue for the neutral. In the case of single phase, i.e. the majority of domestic installations, the phase (line) conductor therefore will change from red to brown and the neutral conductor from black to blue. This will align with the core colours for flexible cords (equipment supply leads) introduced way back in the 1960s. There is a two year changeover period, which started 1<sup>st</sup> April 2004 (no it wasn't an April Fool's joke!). From 1<sup>st</sup> April 2006 all new wiring must be in the new colours. In the interim, either may be used, but, as of yet, I have not come across any twin and earth cable in the new colours. The two year changeover period was set to allow manufacturers to dispense with old stock. Where an installation contains a mix of the old and new colours appropriate labelling also will be required to indicate this situation. The recent 2004 amendment of BS 7671 (formerly known as the IEE wiring regulations) includes these colour changes, which are given in Appendix 7 of that document.

Second, and of even more significance for do-it-yourselfers, a new **Part P (Electrical Safety)** is being introduced to the **Building Regulations**. Apart from limited exceptions, this will require all proposed domestic electrical installation work to either be notified to the appropriate building control body before work begins or undertaken by a competent person registered under an electrical self-certification scheme. All work will need to be inspected and tested upon completion and an electrical installation certificate issued in accordance with BS 7671. Where the work has been carried out by an electrical contractor under the self-certification scheme, he will also issue a signed Building Regulations self-certification certificate and send a copy to building control.

The limited exceptions relate to so-called non-notifiable work, which cover the following situations:

1. Replacing accessories such as socket-outlets, control switches and ceiling roses
2. Replacing the cable for a single circuit only, where damaged, e.g. by fire, rodent or impact
3. Re-fixing or replacing the enclosures of existing installation components
4. Providing mechanical protection to existing fixed installations

Also exempted from prior notification is certain other work, provided that it is not in a kitchen or special location and does not involve a special installation, namely: -

### **Electrical Installations Update continued :**

1. Adding lighting points (light fittings and switches) to an existing circuit
2. Adding socket-outlets and fused spurs to an existing ring or radial circuit
3. Installing or upgrading main or supplementary equipotential bonding

Even in these cases, there is still a requirement for the work to be inspected and tested upon completion by a competent person. However, that person does not necessarily need to be registered under an electrical self-certification scheme. A minor electrical installation works certificate will need to be completed, again in accordance with BS 7671. Obviously, those undertaking inspection and testing will need access to the appropriate instrumentation, e.g. for verifying insulation resistance, continuity, polarity, earth fault loop impedance and rcd trip times.

This change to the Building Regulations takes effect from 1 January 2005. It is a UK government initiative and this time has nothing to do with EU harmonisation. The government case for change is that it will reduce the number of domestic fatalities. Personally, I believe the case for this additional regulation to have been overstated and built upon suspect interpretation of the electrical accident data. By no means are all domestic electrical fatalities due to installation design or construction faults; some are due to inappropriate use of equipment plugged into the installation or the use of unsafe equipment.

In the long term, I suspect that this change to the Building Regulations will rear its head when one moves house. Even now, one of the questions asked by solicitors concerns any work undertaken for which Planning Permission or Building Regulations Approval was required. In responding to such enquiries, evidence will probably need to be produced that any electrical installation work carried out post 1 January 2005 has been inspected and tested.

The above is intended to serve only as a brief summary. For those of you requiring more information, recommended reading is the Part P Approved Document, published by the Office of the Deputy Prime Minister and downloadable from their website at [www.odpm.gov.uk](http://www.odpm.gov.uk)

*Chris Buck*

### **WITHERIDGE ELECTRICITY SUPPLY**

*Non-member, David Taylor, submitted the following research, which may be of interest to members, since very little information about West of England Electricity Companies has survived, except that published in our newsletter supplement of April this year.*

"Mains electricity reached Witheridge in the Summer of 1939, but the village had its own supply from 1931. Whitehall Securities of London was the parent company of a number of smaller companies in Devon, whose aim was to provide "power stations" for towns and large villages. The branch in Devon, West of England Electricity, had offices in Exeter, and an offshoot called the Exe Valley Electricity Company, provided "power

stations" in South Molton, Dulverton, Winkleigh and Witheridge.

In 1935, the first electricity was installed in the village in Cypress House, where the Exe Valley Electricity Company chose to locate their plant. The premises chosen was a two storey shed at the back of Cypress House in West Street, and the engines chosen were diesel by Blackstone, and by Petter, and in 1935, to meet increased demand, a big 4-cylinder Petter was added. These engines charged batteries, which were kept upstairs. They never ran at night, merely intermittently during daytime, although in cold winter weather they might have to run all day. Sometimes the battery plates would warp, there would be a crack as a glass container broke and sulphuric acid poured down below. The power plant charged batteries, kept upstairs, When one burst, it leaked down through the floor and the lights went dim and flickered. Customers of the electricity plant in Witheridge got 100 watts for a shilling a week (and houses were limited to 100 watts each, so the light was not bright).

All the wiring for the first batch of clients was done by Spence of Honiton, but later work was carried out by the Exe Valley Company themselves. All the wiring round the village was above ground and reached as far as Merryside, Gunhole and the Lower School. At Merryside, the Company installed an electric pump to fill the big water storage tank there with water from the reservoir by the entrance to Lakeland's. When the water fell to a certain level, the pump cut in and topped it up. South Molton R.D.C. paid.

Some people had a meter, but others had a "limiter" which would cause power to flicker if too much was being used. Those with "limiters" paid a shilling a week, enough for two 60 watt bulbs. Bill Williams recalls calling to read the meter of an elderly couple who averaged 8 units per quarter (at a penny three farthings a unit), but on this occasion had used 10 units and the old man was furious. One of Bill Williams jobs was to carry out a thermal efficiency test once a month, comparing oil consumption against power produced. Due to a calculating error Witheridge produced a figure of 33%, Better than the 23% of Battersea Power Station

Bill started in August 1933, and remembers Leslie Knight, J. Pollard, J. Seatherton (who later managed South Molton's plant), and, at times, Bill Knight. Once when Bill Hutchings was felling a tree, he told the Company to switch off the power in case the tree fell on the wires. Bill Williams had to tell him that the law required public notice to be given before the power could be cut off, and that it couldn't be done at once. Half an hour later, the tree fell on the wires and all the power went off. Bill Hutchings had to compensate the Company. In the Summer 1939, mains supply arrived from South Molton and joined in to a transformer sited a few yards down the road to Witheridge Mill".

*David Taylor*

### **MEMBERS NEWS**

John Haynes has joined the Cheddar Male Choir.

## **ERNIE & TED**

### **(Electronic Random Number Indicator Equipment)**

Our member Ted Luscombe was one of the original team at the PO Research Station at Dollis Hill, which designed and built ERNIE. This was first used on 1<sup>st</sup> June 1957 to choose Premium Bond winners. It continued to do so until 1973, when a faster and more modern machine, ERNIE 2, replaced it. This was replaced by ERNIE 3 in 1988. On 17 August this year, Ted and another colleague of that team were at the Science Museum for the launch of ERNIE 4. This can choose entirely random numbers 500 times faster than ERNIE 1, and is needed, since there are now 25 billion Premium Bond certificates; and some 110 million prizes each month. The four machines, which were on view, encapsulate the development of electronics over the past 50 years. They had a great day and Ted had a short slot on BBC News 24.

## **SS BALMORAL**

Member Basil Stockbridge is one of the helpers in maintaining the SS Balmoral, which is moored near to the Industrial Museum in Bristol Docks. He says members are welcome to come and look around the engine room on their working days, which are Tuesdays and Fridays, although Friday is "Poets Day"! #see over

## **TONY LOUNSBACH**

It is sad to report that member Tony Lounsbach has died. He retired from the post of Manager, CEGB Bristol Transmission District. He was a valuable member, who enjoyed contributing to this newsletter.

## **FRENCH ELECTRICITY**

An interesting sequel to the news on French Electricity last edition – I discussed the issues with a mate of mine, who has a French son-in-law. I asked him to find out what the French think about Nuclear. The reply came back that General de Gaulle decreed that France would only be self-sufficient in energy if she generated electricity by nuclear means and this fact is imbedded in the public consciousness. *Peter Lamb*

## **NO ELECTRICITY**

A couple were in the news recently, since they had lived in a farmhouse in Suffolk for 37 years without electricity. They brought up their nine children without television or any modern appliances, which we all use daily. They believe that not having electricity was a good thing, the children played together and they never got seriously ill! Is there anyone left in the South West without an electricity supply?

## **BANANA ELECTRICITY!**

With the details of electricity activities in Australia in the last issue, it is interesting to read that Australian scientists have designed a fruit fuelled electricity generator, says the Times (August 2004). It seems Northern Queensland has an abundance of over-ripe, bruised too small bananas (20,000 a year). It is intended to build a plant capable of supplying 500 homes.

## **XMAS CRACKER *Why did the Gardiner plant bulbs?***

Answer : So that the worms could see where they were going!

## **EDISON ON THOMSON**

Edison was renowned for his casual attire, but is quoted as noticing the dress of a well-known visitor. "I remember Sir William Thomson (*later Lord Kelvin, an eminent British scientist*) came to see me wearing a suit of clothes. I tell you his trousers were too short for him, his coat was old and greasy, the collar came up above his ears, and his hat looked as if he had boiled soup in it"!!

## **CHRISTMAS JOKE**

Santa Claus was very cross. It was Christmas Eve and nothing was going right.

Mrs Claus had burnt the mince pies and the elves were wanting more money for working overtime. The reindeers had been drinking and were paralytic. Rudolph had crashed the sleigh into a tree. Santa was furious. "I can't believe it! I've got to deliver millions of presents all over the world in just a few hours. I haven't got enough toys, the reindeers are drunk and having sent the angle out to get a Christmas Tree, I still haven't got one".

Just then the door opened and in stepped the Angel with a Christmas Tree. He said "Oi, fattie, where do you want me to stick this Christmas Tree".

And thus we have the tradition of an angel on top of the Christmas Tree!!.

# Basil speak for Push Off Early Tomorrow's Saturday.

FOR YOUR DIARIES – a Reminder

### **PROGRAMME for the NEXT HALF YEAR**

#### **Sat. 29<sup>th</sup> Jan. 2005 ANNUAL LUNCHEON**

At the Batch Country Hotel, Weston-super-Mare, visiting the Helicopter Museum in the morning. Speaker : Bob Malone, Chief Helicopter Pilot of WPD.

#### **Sat. 19<sup>th</sup> Mar. AGM AT TAUNTON + Talk "COLLECTABLES WITH A DIFFERENCE" by John Bates**

At WPD Training Centre at 2.00pm, lunch beforehand at 12.00pm at the Merry Monk Inn

#### **Sat. 23<sup>rd</sup> Apr. EXETER MEETING - "ELECTRICITY GENERATION IN DEVONPORT DOCKYARD" Talk by Ted Luscombe.**

Lunch and meeting at the Black Horse Inn off the A30.

#### **Sat. 21<sup>st</sup> May VISIT MONTECUTE HOUSE & WIRELESS MUSEUM**

Meet for lunch at 12.00 noon in the National Trust  
Lunch at nearby pub.

#### **Sat. 25<sup>th</sup> Jun. VISIT BRISTOL EXPLORATORY & WILD WALK @ Bristol**

10.30am for whole day activity including lunch.

## **NEXT EDITION**

This newsletter is produced every four months. Please send information, articles, photographs or letters to :-  
Peter Lamb at 35 Station Road, Backwell, Bristol BS48 3NH or telephone him on 01275 463160  
Or e-mail him on [lambvandp@uku.co.uk](mailto:lambvandp@uku.co.uk)

### **NON-PETROL CARS**

Every now and again an electric car is produced which is heralded as the break through for a non-petrol car, but that usually is the last we hear of it. I read recently that the car of the future is the hybrid. The Toyota Prius has both an electric motor and a petrol engine. I suppose that would reduce the consumption of petrol. However development work is proceeding on a hydrogen fuelled car. It seems that car engines are replaced by fuel cells that convert hydrogen into electricity and steam! Well what do you do with the steam? Presumably waste it. It doesn't sound very efficient.

### **NUCLEAR LOBBY**

Great news that the Nuclear lobby has gained some noteworthy supporters from the "greens". James Lovelock, described as a "green-thinker" and Hugh Montefiore of "Friends of the Earth" have both come out in favour of building new nuclear power stations. As our existing nuclear stations close, it is essential to start building new before we lose the necessary expertise.

### **ELECTRICITY POEMS**

*From the Torquay Electricity Undertaking April 1933*

There was an old woman, who lived in a shoe,  
She had so many children, she didn't know what to do,  
She gave them a whipping, she gave them some bread,  
And did all the work, when she'd sent them to bed.

The modern old woman, who lives in a shoe,  
Though she has many children, she knows what to do,  
In a "Shoe" all-electric, they are good and well fed,  
And the work is all done, e're she sends them to bed.