

# HISTELEC NEWS

NEWSLETTER OF THE SOUTH WESTERN ELECTRICITY HISTORICAL SOCIETY

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

No. 64

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## HAPPY NEW YEAR

What with Brexit and Trump being elected USA President, it appears to be unsettling times, so may I wish you a jolly and safe new year? This coming year is certainly going to be more interesting than the last!!

## SWEHS SEEKS CLOSER LINK TO WPD

Recently your committee whole-heartedly endorsed a proposal to incorporate a reference to "Western Power" into the Society's title, which will be put forward as a recommendation at the AGM in March 2017.\*\*

This came about since, Peter Lamb, who feels a responsibility for the care of the SW Archives heaped on him by SWEB senior staff in 1989, had a meeting in November with Ian Williams, WPD's External Affairs Director to cement a closer relationship with our sponsors, WPD. There was considerable agreement with this objective, which included the above proposal; thus widening the Society's horizon for its long term future. Many benefits would ensue such as wider publicity within the company covering the Midlands and South Wales, greater potential membership and enhancing our national status.

**Note : We have received permission from WPD.**

## NEW WEBSITE

I have continued to make progress with building the new website. The latest milestone is that all the photos of the South West before nationalisation in 1948 have now been loaded - there are around 2500 photos on the prototype website. You can browse them by going to [www.paulhulbert.org/swehs](http://www.paulhulbert.org/swehs) and clicking on Study Corner, then Photos and South West pre-1948.

If you have "electrical" photos of this era that we haven't received, please email to Paul on :-

[paul.hulbert@gmail.com](mailto:paul.hulbert@gmail.com)

Or perhaps one of our photos reminds you of a story that would be of interest to our readers? Please email any stories to Peter Lamb at

[lambpandv@btinternet.com](mailto:lambpandv@btinternet.com)

*Paul Hulbert*

## ELECTRICITY GENERATION

In the second quarter of 2016, with coal fired power stations being taken out of commission, gas provided 50.9% of generation, with nuclear at 24.2%, coal at only 6.8% and renewables at 18.1%.

## HINKLEY C GETS THE GO-AHEAD

I guess I don't need to tell you this, due to the publicity! But what have the Government let us in for? The two EPR reactors EDF plan to build in Somerset come at a huge price tag of £18bn. It is only financially viable because the Government have agreed a fixed price for the electricity over its 35 year lifespan requiring £30bn in subsidies. EDF, a state majority owned company, still couldn't afford this without the support of a Chinese wholly state owned company CGN, who are footing a third of the costs. There was a condition, to be able to build its own reactors at EDF site at Bradwell, Essex. China is building up its own nuclear expertise encompassing a new design drawing on ideas from other countries. EDF have stated that it will be built by 2025, but many people are saying it will never be built!!

## FRENCH NUCLEAR SHUTDOWN

With all the hype about Hinkley C, EDF are suffering in their home territory. The French Nuclear watch-dog have instructed EDF to shutdown 12 reactors bringing the total to 17 out of action to be examined for hidden weaknesses in their reactor pressure vessels. The safety agency was examining the pressure vessels at Flamanville, a nuclear power station being built in Normandy, and found high levels of carbon, which could make the structure unsafe. So for the first time in 4years Britain exported UK power to France until a ship damaged the cross-channel cables in November!.

## SEVERN TIDAL FENCE

Another plan is to harness the Severn Estuary's extreme tidal conditions with a 12 mile tidal fence from Aberthaw to Minehead. The proposal is being spun out of an Oxford University study and run by a firm called Kepler Energy. They have a grant of £15M from the Welsh Government to trial the idea off Anglesey, which could lead to a 30MW £160M proof-of-concept marine power station by 2021 with using turbines 10 metres diameter wide and 60 metres long. The final scheme will produce a total of 600MW and costing £2.2billion, the same cost as a nuclear station.

## SSE LOSE CUSTOMERS

Many of the leading electricity operators known as the "Big Six" are losing customers to the smaller independent rivals who are offering cut-price deals. These are First Utility, Ecotricity and GB Energy.

## A HUNDRED YEARS AGO

Karl Marx thought 'History repeats itself, first as tragedy, then as comedy' - although the current state of public electricity supply in the UK is hardly grounds for hilarity. Nor was it a century ago? The public supply of electricity in the UK was something of a mess, with over 500 undertakings, many uneconomically small, unable to take advantage of large-scale generation techniques. In wartime Britain demand for power was burgeoning. Leading engineers had been agitating for change already, none more than Charles Merz whose hand can be detected in three major, official investigations at the time.

First, the Haldane Committee (1916) on the 'coal conservation question' advocated a more efficient generation and use of electricity, possibly by setting up large, regional networks - like that already existing in North East England, the NESCO 40 Hz system.

Next, the Board of Trade (then overseer of the electricity industry) set up an Electrical Trades Committee (1916) under turbine pioneer, Sir Charles Parsons. The committee felt that expensive, parochial electric power was impeding industrial development and that some kind of proactive intervention was required, possibly by a non-political Board of Commissioners.

Another committee, under Sir Archibald Williamson (1917) investigated how to ensure: 'an adequate and economical supply of electric power available for all classes of consumer. . .' Williamson had no doubts about the solution - concentrating generation in a few giant stations and having a single, national authority to bring about the necessary changes.

All three committee chairmen came together after the Great War (1919) under the lead of Sir Henry Birchenough, whose committee 'on Electric Power Supply' framed suggestions for legislation. For once discussions turned out to be a prelude to action rather than a substitute for it.

The outcome was the Electricity (Supply) Act of 1919 which set up the Electricity Commissioners. But, fierce resistance from existing undertakings, shortage of parliamentary time, etc., left the Commissioners without the powers to carry out radical changes. They had to rely on voluntarism and powers of approving or disapproving power station plans rather than initiating them. Which is where the situation remained; in effect, until the coming of the National Grid and the setting up of the Central Electricity Board, and is another story.

Nevertheless, the four committees were clear and in broad agreement: engineers saw what was necessary, even if political muddle and compromising was unable to deliver. At one time these developments were perceived as milestones towards a rational, national system as prevailed (admittedly with problems) after nationalisation. However, looking at the post-privatisation scene, the agonising over sustainability,

Hinkley Point, who owns, controls and plans for the future and so on, one is minded of the wisdom of another philosopher, G W F Hegel: 'The one thing we learn from history is our inability to learn from history!' *Roger Hennessey*

## NEW FORM OF WAVE POWER

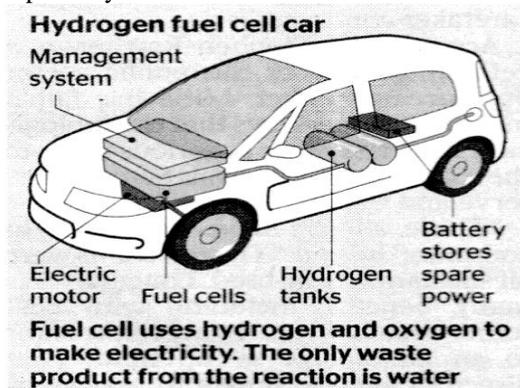
Britain's first wave farm is to be built off the Cornish coast, but it is unlike any others discussed before. It is called Ceto, a giant buoy named after a Greek Sea Goddess. It moves up and down with the waves using this motion to drive a hydraulic cylinder and generate electricity. It is a Government funded testing site off St. Ives with an undersea Grid connection. The device is made by Carnegie Wave Energy, an Australian company. Michael Ottaviano, Chief Executive of Carnegie, said this project could be cost effective with off-shore wind and more reliable by 2025. Other wave power projects off the Scottish coast have so far failed to get going, although some other projects are still upbeat. In the Pentland Firth in Northern Scotland the MeyGen Tidal Power scheme is proceeding with enthusiasm as the largest tidal energy scheme in the world. Phase 1A consists of four 1.5MW turbines. The siting is important as it is in a channel between the Caithness Coast and the island of Stroma.

## ELECTRIC CAR LATEST

A battle is looming over electric car market. The car industry has been speculating for some time on who would take on Tesla Cars. At the recent Paris Motor Show, Mercedes-Benz came out with the statement that they would develop a whole stable of electric cars called Generation EQ. Also Jaguar Land Rover are planning to launch an electric car by the end of the year. Existing electric cars on the market are the best-selling Nissan Leaf, the new Volkswagen ID and the General Motors revamped Ampera, which can now do over 300 miles on a single charge.

## HYDROGEN FUEL CELL CARS

Recently the 15<sup>th</sup> Hydrogen Fuelling Station has been opened at Rainham, Essex. It has been said that Toyota, Hyundai and Honda believe that hydrogen piped into fuel cells where it reacts with oxygen in the air to drive electric motors and emit waste steam is the long term answer to the combustion engine. Toyota are producing their Mirai at a cost of £60,000 with gas costs at £10 a kilo. You may save the planet but not your pocket yet!



## DEVONPORT NAVAL HERITAGE

Thanks to the efforts of John Ferrier about 40 members, wives and friends took the opportunity to visit "Devonport Naval Heritage Centre", in Devonport Dockyard, on Saturday 17<sup>th</sup> September. Whenever John organises an event it invariably turns out to be good and Saturday 17<sup>th</sup> was no exception. Even the weather was good. Although originally called "Plymouth Dock" there has been a dockyard at Devonport for well over 300 years so its history and traditions are, understandably, truly fascinating. The "Devonport Naval heritage Centre" has evolved so that we, the public, could get a glimpse of our Royal Navy and its achievements over the years; and, to this end, there is the large museum, comprising several Galleries over three floors, plus the opportunity to go on board the decommissioned nuclear submarine "HMS Courageous".

On our arrival we were greeted with coffee and biscuits and then we were split into 2 groups, one for the museum and the other for the submarine. All museums are of interest but, if one is accompanied by enthusiastic guides, as we were, they become fascinating. The submarine, which did not fire nuclear missiles but was propelled by a nuclear plant, was amazing and incredibly complex. She was commissioned in 1971 and paid off in Devonport in 1992 and our guide, an ex-submariner, served on her for several years. I can only say "rather him than me". I would not have the courage! My respect for those men has gone up tenfold. Lunch comprised pasties and sandwiches and, following that, the groups swapped over. There were a few who did not wish to tour the submarine so they enjoyed a visual presentation instead. There were even more sandwiches, tea and cakes before we left. It was definitely an enjoyable day. Thanks again John.

*David Hutton*

## VISIT TO ROLLS-ROYCE HERITAGE CENTRE

Around 20 members and guests met on 18 October at Rolls Royce, Filton, for a visit to the Bristol Branch of the Rolls Royce Heritage Trust, housed in the former engine test building. There was a traffic problem causing a delay, but when all had been checked in by security, our two guides accompanied us through the Rolls Royce complex to the heritage collection. As an introduction to the history of Rolls Royce and the Bristol complex in particular, our attention was drawn to a time-line chart. This explained the development of the Company from the early years of the 20th century, which had initially been established as a partnership of two men – Messrs Rolls and Royce, the former a car salesman and entrepreneur and the latter a mechanical and electrical engineer. The partnership was established to manufacture and sell high quality luxury motor cars, which was to become a benchmark characteristic in subsequent years. Mention was made of the ancestor firms of the British & Colonial Aerospace Company, Brazil Stoker and Cosmos, through to the Bristol Aeroplane Company, Bristol Aero Engines and finally to Bristol Siddeley and the eventual merger with Rolls Royce in 1966.

The Bristol Branch of the Heritage Trust contains an unrivalled collection of Bristol built engines ranging from several pre-WW1 car engines through to aero engines dating from the 1920s, wartime Bristol Hercules and Centaurus sleeve-valve radials and gas turbines, including Frank Whittle's pioneering engine, the Harrier's Pegasus and Concorde's Olympus. For the tour around the exhibits we were split into two groups and our guides provided detailed explanations of the workings of the various engines on show. Reference was made to the development and provision of a number of Proteus gas turbine engines in SWEB days to provide emergency generation in isolated communities, such as at Princetown on Dartmoor.

The centre also houses a large archive collection of books, brochures, manuals and other material relating to Bristol and De Havilland engines from 1915 onwards, but time did not permit us to delve into these! A collection was made at the end of our tour with around £90 raised for the work of the Trust, which like SWEHS, is run by volunteers. Our thanks go to our two guides, Paul and Robin, who provided detailed explanations and answered our many questions; also to our Chairman for the detailed organisation of the visit.

*Chris Buck*

## PRINCETOWN ELECTRICITY

I have been informed by the Dartmoor Society and the Dartmoor Preservation Association of a proposed whisky distillery in Princetown which would require the demolition of the original Electricity Generating Station building built in 1924. I have taken it upon myself to write to the Chief Executive of the Dartmoor National Park Authority to voice the concerns, amongst others, of our Society.



**Princetown Generation Station building**

The building is an important part of the history of Princetown, and its demolition would be a tragedy, especially since so many other buildings have gone or are threatened. The Pocket Power station driven by a Rolls-Royce aero-engine was sited next door.

I sent a copy of my history of Princetown Electricity. I received a reply of grateful thanks for the history, which is now in the hands of the Head of Planning, who I suspect was not aware of its significance of the building. I have not yet heard that a planning application has been submitted. *Ted Luscombe*

## DEVON TALK REVIEW

On Saturday 19th November 45 of our members met at the Toby Carvery in Lymestone. Following an enjoyable lunch, Peter Lamb gave a very interesting talk on the 'Early Supplies of Electricity in the South West'. Starting in 1800 with Alessandro Volta, creator of the first battery, Peter's talk covered many pioneers of those early years including Michael Faraday whose discovery with electromagnetic induction played a huge part in the industrial revolution, but which he never patented.

Peter's presentation also included photographs of several interesting buildings such as the Taunton Electric Light Co. which, created by Mr Massingham in 1886, provided the first public electricity supply in the South West. With gentleman pictured in suits, it is hard to believe that bowlers were considered the hard hats in those days and where underground faults occurred, a jointer would be sent out with his jointer's horse and cart, often taking 2 days or longer to get the supply back!

With the first introduction of electrified trams in Bristol in 1895, came the great debate on whether to use AC or DC. He showed early electrical appliances of the 1900's such as the 'Sausage Fire', electric Hoover and first production model electric cooker of 1910. Unlike today, electricity was still something that could not be enjoyed by everyone; the cost of the supply in the 1920's was 1d per unit - however it was 6 times that price in rural areas! What is clear is that it is thanks to the pioneering endeavors of our forebears that we enjoy so many things today that, ordinarily, we take for granted. Our thanks must go to Peter for a most interesting and enjoyable talk. *Sue Hole*

## STEVE COLE'S REMINISCENCES

*An edited version continued from the last issue.*

When I first joined SWEB in 1950 as a Graduate Trainee I did spend some time with the CEGB at Bath generating Station, where two 5MW Brush-Ljungström generator sets were still operated alongside the other more modern sets. I was lucky enough to assist in maintenance of one of the set's turbines, so I have seen the inside of the radial flow turbines.

I worked with SWEB at Weston from 1957 to 1975, when there were still some DC consumers, although many of the smaller consumers were dealt with by supplying and installing rectifiers, or for motors to be changed to enable them to accept an AC supply, but one fairly large consumer remaining to be dealt with was the adjacent pottery. The limited DC load was carried by a rotary converter in the station annexe. Unlike at Gloucester, where I worked before returning to SWEB, there was no large battery room to switch to for night use, and, as I remember, supplies could be shut down at night. Nevertheless, I had the chance of seeing two very large, but unused by then, mercury arc rectifiers in what was a large distribution substation in the centre of the town. They were as big as any I had seen before at an open hearth furnace plant at a

steelworks where I worked before starting with SWEB. They were later disposed of.

Now to the low voltage system as I knew it from 1957. The first incoming supply was that by the CEB at 33kV to the 33/6.6 kV substation at Locking Road. The transformers there were star/star connected with the necessary separate delta used for auxiliary supplies. There were also, separately located, 33/11 kV transformers with the then standard delta/star connection. Any 3 phase transformers at 11/415/240 v were the standard delta/star connection. There were also dual input voltage 11/6.6/415/240 v transformers for convenience of gradual changeover to 11kv from 6.6kV on the high voltage system. In addition to this the Weston undertaking had already started using Scott connected transformers supplied at 6.6kV. In doing this they had given thought to the arrangement and related it to the extensive low voltage cable system already operating on primarily a three wire system to minimise voltage drop. The output from the Scott transformers was taken as two separate (at 90 degree phase shift) three wire supplies.

You will understand the difficulty of operating interconnected low voltage systems that would result in the possibility of finding in LDB's four different out of phase systems. There were from the 6.6kV system two lots of single phase three wire, 3 phase from the 6.6kV system and 3 phase from the 11kV. A complicated system of marking the disconnected ways with a coloured cover was operated in Weston, which was only reliable if they were put back correctly. Phasing out with a test lamp before inserting a link was not good enough, a voltmeter had to be used.

It could be exciting when operating in LDB's with interiors made by the Weston undertaking on their night shift. Unlike modern spring loaded, double sided links, they used either one or two individual strips secured by bolts and wing nuts, the wing nuts being tightened by poking with some insulated tool. If there was a good current, it was necessary to be quite fast tightening up (or undoing)! *Steve Cole*



Picture from the past taken by Maurice Cross at a IEE Student's meeting with Chairman Bill Irens John Coneybeare left and Peter Milburn right.

## THE NUCLEAR OPTION

Whilst staying with family in Southwold I stumbled upon an evening talk in nearby Aldeburgh by Jonathon Porritt (one-time chair of UK Sustainable Development Commission and advisor to the Government). Aldeburgh has Sizewell on its doorstep, and the recent go-ahead for Hinkley Point “C” has brought the possibility of a Sizewell “C” that bit closer.

He cautioned the audience (who were overwhelmingly against yet more nuclear next door) not to lapse into premature despair. He has serious doubts that Hinkley C will ever generate electricity, citing serious delays and cost overruns on the similar unproven design under construction in Finland and at Flamanville in France. The French Government’s decision to halt nuclear build after Flamanville suggests that EDF were especially keen to secure the Hinkley “C” order, to keep their nuclear industry afloat.

Whilst the military and civil aspects of nuclear power were supposedly separated in the 1960’s, a suspicion remains that maintaining the expertise required for our Trident replacement is not unconnected with the Hinkley decision – which, in our speaker’s mind, would make China’s inclusion in the project even more mind boggling.

Whilst declining to condemn the possibilities of nuclear power for the future, he claimed that current nuclear technology was old, tired and unaffordable. He claimed it cannot compete with the developing energy paradigm - citing the growth in renewables, the storage revolution, reducing per head consumption from increased efficiencies in manufacturing and the home and the continuing year on year reduction in renewable energy costs. Furthermore, the timescale for fusion remains constant – still 40 years away.

He ended the talk enthusing over his recent visit to the States and the likely impact of the Tesla Powerwall (Battery Technology) on “life as we know it.”

*Barrie Phillips*

## “LA FEE ELECTRICITE ENTRE DANS LES CAMPAGNES BRETONNES”

This is the title of a book which tells of how electricity was brought to the countryside people of Brittany. It is beautifully written and illustrated. I could not resist buying a copy, even though my knowledge of French is weak. The general consensus is that La Fee should be translated as The Magic! Of course, the story of rural electrification is common for many large and remote communities, but few stories are recorded so well. I recall that the electrification of rural Ireland was undertaken on a massive scale.

So how did I come by this book? I recently spent a short holiday with my god daughter and husband at their cottage near Pontivy. One day we visited a place significant to the story of the electrification of Brittany, the **Lake and the Guerledan Dam**.

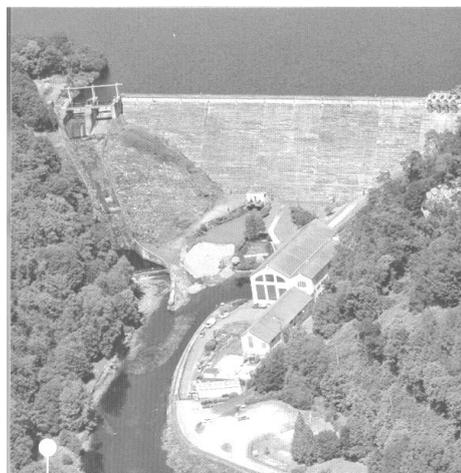
After the First World War electricity was a valuable and scarce commodity, particularly in rural areas. The construction of a dam 40 metres high at a place called Guerledan, to provide electricity to almost one third of Brittany was seen as a ridiculous idea. Built between 1923 and 1930 it needed the audacity of the sub-prefect Joseph Ratier and the force of character of the engineer Auguste Leson for the project to see the light of day. In

1930 the lake, the dam and the power station was capable of producing 28000 MWh/ per annum. Today it can provide necessary electricity during peak times of high consumption.

There did not appear to be any public access to the dam and power station. However nearby there is a **Musee de l’electricite**. This is neatly contained in a restored house with a modern extension: it is mainly to tell the story of the construction of the dam which it does well, or seemingly so, with this ignoramus trying to translate the captions! But as a museum of the story of electricity it is rather disappointing; no mention of Faraday or Tesla for instance. There are some interesting artefacts, but nothing to match Cairns Road! Outside there are bits and pieces of turbines and pipework, which are not much more than for scrap! It is a pleasant place to visit, and there I found the book.

The lake (the largest in Brittany) is a tourist attraction with various walks, an artificial beach with swimming and sailing facilities; picnic areas, a hotel and restaurant.

*Ted Luscombe*



**Guerledan Dam**

## CAROLINE HASLETT

This ladies name has been in the forefront of archiving recently. She was Dame Caroline Haslett an electrical engineer and the first secretary of the Women’s Engineering Society and editor of its journal, *The Woman Engineer*. She was co-founder and first director of the Electrical Association for Women (EAW) in the 1930’s. She was a driving force in the education of women in everyday electrical matters particularly in the home. Member Linda Gee has found a book in Keynsham written by her, which she has donated to our Archives. It is called the “Household Electricity” in the series “Teach Yourself”.

David Cousins has been working on the digitising slides belonging to the late Sox Hosegood, SWEB’s first Helicopter Pilot, who died two years ago. They are mainly associated with bringing the first helicopters back to Bristol from Augusta, Milan, but one set is about landing a helicopter on a ship called “Dame Caroline Haslett”. This ship was involved in laying the first cables between England and France.

## HUGE WIND-FARM

The biggest wind-farm with 300 turbines, each 190m tall, has been given the go-ahead in the North Sea called the Hornsea Project. It will sit 55 miles off the Yorkshire coast and spread across 300 sq. miles. It will be built by Dong Energy. It is not popular with environmental groups who are concerned for the bird life in that area. The project could provide up to 1.8 gigawatts of electricity – when the wind blows of course!

## AUSTRALIA'S FALLEN PYLON

A news item in Australia - "This is what caused South Australia to black out. Those are transmission towers. When they blow over like this they can no longer transmit electricity! They don't care whether the electricity, they can no longer transmit, was generated by wind, coal, sunlight or rubbing sticks together. South Australia's commitment to renewables had nothing to do with last night's outage. Usually we wouldn't point this out so forcefully, but the Prime Minister today came out and blamed renewable energy for this. He's wrong. Stay safe, SA, and spare a thought for the people working hard in atrocious conditions to get the power back on".

## TALE FROM THE PAST

During the 1970s, SWEB Bristol District did a massive voltage changeover programme from 210 volts to 230 volts and later to 240 volts. My father, who was a meter fixer, came home chuckling one day. He had encountered a man who had moved from a 230 volt area into an area that was still 210 volts, so his appliances weren't working very well. The customer explained the problem thus (in a very broad Bristolian accent): "Where we wuz, we 'ad red lectric. Now we'ze moved yur, we'ze got black lectric". **Paul Hulbert**

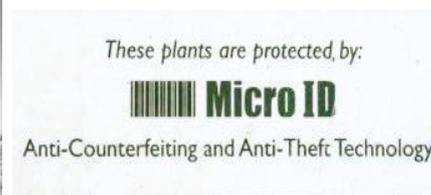


## CHARLES WHEATSTONE

For Sir Charles Wheatstone the science of sound was literally music to his ears. Born in 1802 into a family of London musical instrument makers and sellers, Wheatstone mixed research into acoustics, electricity and spectroscopy with the development of new instruments, culminating in the concertina in 1829. When asked how he found the time, Wheatstone admitted, 'It was a bit of a squeeze!' (Extract from IET Journal)

## Hi – TECH COMES TO BOTANY!

Pat and I have just returned from a fascinating trip to South Africa with the Friends of the Bristol University Botanical Gardens. The Table Mountain Peninsula only measures some 50 by 20 miles, but contains more species of plants than the whole of the UK and new varieties are still being found. Some plants are so rare and hence so valuable, that they are being stolen. To counteract this, plants are being micro chipped!



No, we were not looking for a cable fault, but Lithops – Living Stones, a little succulent that looks like a rock! **David Hutton**

## MEMBERS NEWS - WELCOME

We welcome new member Roger Salter, who has a particular interest in electrical machines. Roger worked in various companies in the Bristol area, and then taught Electrical Machines and general Electrical Engineering at Bristol Technical College.

**Q:** Do you know how an electrician tells if he's working with AC or DC power?

**A:** *If it's AC, his teeth chatter when he grabs the conductors. If it's DC, they just clamp together.*

## FOR YOUR DIARIES 2017

**Sat 4th Feb. WINTER LUNCHEON AT THE BATCH COUNTRY HOUSE HOTEL, LYMPHAM Near Weston-super-Mare**

Followed by a talk by Jonathan Yabsley on the work of the RNLI.

**Sat 18th Mar. AGM AT TAUNTON + TALK -**

**AGM** - At WPD Training Centre at 11.00am followed by lunch at 12.15pm at the Merry Monk Inn. Following lunch, there will be a presentation at 2.00pm by member John Dike on the "First Atlantic Telegraph Cables of 1858/1866".

## ADVANCE NOTICE

**WEEKEND AWAY IN THE STROUD VALLEYS**

**29th Sept. - 1st Oct. 2017**

Around Stroud are 7 valleys and the rivers flowing through these powered industry in the past. We will visit restored mills; Woodchester Mansion, an un-finished neo-Gothic house; and the headquarters of Ecotricity. There is much more to explore in the area.

**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).