

HISTELEEC NEWS

NEWSLETTER OF THE SOUTH WESTERN ELECTRICITY HISTORICAL SOCIETY

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NAME CHANGE?

At the AGM in March, a suggestion was made then of changing the name of the Society, so that it is less defined as "South Western", which makes sense with many members living outside the original territory and being more expansive. It was agreed at the last committee meeting that a motion will be put to the next AGM in March 2013 – watch this space!!

COME ON CHAPS

From time to time we all experience something or somewhere so good that we feel obliged to recommend it to others. It is quite normal; we do not want them to "miss out". Well, if I may say, I would like to recommend to you a little book "Torquay's Electricity History" written by two of our members, Peter Lamb and John Dike. It is the first book published by the Society telling a story of the trials and tribulations of those early pioneers, which are brought out vividly as are the incredible Tram story, Babbacombe Cliff Railway and the abortive Dartmoor Hydro-electric schemes.

Your committee supported this venture financially, but unfortunately few of the membership have taken up this superb opportunity of a good read, which is a shame since the two authors have put in such a great effort.

Please support this book publication, since it is a very major part of the Society's objectives. Books are available from the Secretary at £3.00 plus £1.00 p&p. (*See press review on page 6*) **David Hole Chairman**

PLYMOUTH BOOK?

Following the printing of the Torquay book, member Ted Luscombe would like to convert his pamphlet, which he wrote for the Devon Association, on the history of electricity in Plymouth into a similar sized book. Your Committee have agreed to finance its publication.

NEW GAS FIELD FOUND

Centrica, owner of British Gas, and GDF Suez are combining to open up a new gas-field in the southern North Sea, following a change of heart of the Government to give the consortium a tax break to encourage this particular gas-field development. Critics of the decision said it would give mixed messages to financiers of carbon-free developments and make it difficult to satisfy the target to slash carbon emissions in the future. Others have said it would keep the lights on and create 4,000 jobs.

WEEKEND AWAY 2014

Following the success of the Oxford Weekend (see report page 2), your committee have decided to have another weekend away in April 2014. Overwhelming support was given to holding it in Dorset with five members volunteering to help organise the associated events and hotel venue.

OLYMPIC PARK

The Energy Centre for the Olympic Park at the recent games was designed to reflect the tradition of Battersea and Bankside Power Stations so IET reported in July. During the Games it provided heating, air conditioning and power for all venues with a capacity of 46.5MW of heating and 16MW of cooling, which included five cooling towers and two hot-water boilers. The building was 18meters high with glazing to allow people to see inside to view the biomass boilers, which used sustainable fuel such as woodchip, but also gas to generate heat and energy. The Primary Substation building alongside, which distributed electricity from the National Grid, was designed using dark bricks taken from the demolition of the nearby Kings Yard industrial buildings.

NEW TRAINS AGREED

You may recall that last year the Government agreed to electrify the lines between Paddington and Cardiff. They now have signed a contract to build the trains involved with Agility Trains, a consortium led by Hitachi, which will be built in the UK in a new factory to be established in County Durham. The contract is for £4.5 billion for 596 carriages for both the Great Western route and also the East Coast main-line. Also included are new maintenance depots, one of which will be built at Stoke Gifford near Bristol. The new trains are expected to come into service by 2017.

NEW PYLONS LATEST

Following the competition for a new pylon in 2011 when the "T" shaped pylon was the winner designed by a Danish company Bystrup, National Grid have announced that they are working closely with the Bystrup's team of architects, engineers and designers to develop a family of pylons based upon Bystrup's concept. They say that the existing pylon designs are roughly 50 metres high, whereas the new "T" shaped pylons will be only 30-35 metres high.

OXFORD WEEKEND AWAY April 2012

Our weekend away this year started on Friday 20th April when just over 40 members, partners, and friends met at the Oxford Spires Hotel in Oxford, which, conveniently, was easy to find, being only about a mile from the A34, and yet was within walking distance of the city centre. Most of us arrived about mid day on Friday, so we had ample time to get our bearings by walking "into town" along the road, the bank of the river Thames, or by using one of the frequent buses. The hotel proved to be an excellent choice, as we were very well looked after, our rooms were comfortable and the food was first class.

After dinner on Friday evening we were entertained by Mr Brian Lowe, one of Oxford's professional guides, with his presentation about some of the more surprising features in Oxford, which would not normally become apparent to the average tourist. His knowledge was amazing and he kept us all amused with plenty of humour and quite a few laughs.

On Saturday morning we met Mr Lowe once again as he was one of our guides for our pre-arranged guided tour of Oxford which included a visit to New College, also pre-booked. The tour was made all the more enjoyable since we came across several of the features mentioned the previous evening "bringing them to life". At about 1300hrs we split up and went our separate ways to explore, and enjoy, more of the many places "on offer". My particular favourite was the covered market, where Chris and I spent far too long watching cakes being decorated, by hand, in the market's cake shop, absolutely fascinating! The less said about the entertainment, after dinner that night, the better. *# see editor's note below.*



Our Oxford Guide holding members attention

At 0945hrs on Sunday morning we boarded our coach for the short drive to "Waddesdon Manor", surely one of the most amazing houses of "The National Trust", having once belonged to the Rothschilds. Our visit coincided with a French market and a rally of vast Rolls Royce and Bentley motor cars which added to the interest of the day. We started our visit with pre booked coffee and biscuits in the old kitchen. This was followed by an introductory talk given by a NT guide in the "Old Powerhouse". One wall in the room was taken up by an ancient switch board comprising bare copper contacts, knife switches, huge instruments and so on. Had it been live then contact with it would most certainly have been more "interesting" than the talk! (It is regrettable that I am old enough to remember similar equipment, in use, in Plymouth "A"

whilst I was working in Plymouth "B"). Then we split up again to explore the beautiful gardens, the tulips, the house, (like a French Chateau,) and it's amazing contents. Personally, with the exception of a temporary exhibition of so called modern art, I enjoyed the whole thing so I was quite surprised to find that opinions were divided amongst my companions. Several thought it was "over the top", too opulent, too ostentatious. However they were bankers, so they had "it" and wanted to flaunt "it".



Talk in the Old Powerhouse

On Monday some left for home but the majority of us made the short drive to "Blenheim Palace" for the day. Once again there is so much there to see and enjoy with the "Churchill" Exhibition, the state rooms and a modern audio/visual-display (which is very clever but, to be honest ", not my scene"). The gardens and grounds are magnificent but, unfortunately, the weather let us down at last by turning to steady rain. However Chris and I decided to ignore the rain and explore the grounds so we had the bonus of being almost on our own in all the splendour. We walked to the "Cascade" and discovered there a working hydro electric power station, at least I assume it was working, it was certainly humming.

There can be no doubt that Chris Buck, David Hutton, David Peacock and David Cousins did a wonderful job by organising this excursion for us. Many thanks chaps, we are in your debt. I can only say to those of you that missed it, you missed a treat! *Dave Hole*

#Saturday's evening entertainment knew no bounds with the Chairman dressing for the occasion as a flamboyant quizmaster. It was a musical quiz from past eras, which most of us there would remember, so we all had great fun with undisciplined responses throughout causing great merriment.

CANALS & WATERWAYS

A new charity has been launched recently called the Canal & River Trust, which has taken over 2000miles of Britain's rivers and canals from British Waterways. It is one of the biggest state endowments in British history. It is to receive land worth billion pounds across England and Wales, including the River Ouse, which flows through York and the Trent, which runs an incredibly long way from Staffordshire to the Humber Estuary. It will take on dozens of canals including the 137mile Grand Union. What a responsibility!

OAKHAM TREASURES & TYNTESFIELD

On Saturday May 19th at 10.30am 29 members and guests met in the Acorns Café at Oakham Treasures near Portbury. Suitably refreshed we were then free to take a tour of Oakham Treasures and see the collection. Many of us had thought that it was mainly a collection of farm machinery and implements but we were pleasantly surprised to find that it was much more than that. As well as a large collection of tractors of all makes and vintages and stationary engines, all clearly labelled, there was a unique collection of memorabilia from a bygone age. This included rows of antique display cabinets packed from top to bottom and a number of themed shops, including a sweet shop, haberdashers, chemists, hardware store, tobacconist, grocers and a pub. There was even a small corner of curios with a pedal-operated dentist's drill (ouch).

At 12.00 we re-assembled in the café for lunch. There was a reasonable selection of meals which were well cooked and, considering the numbers, served promptly. After lunch we proceeded to Tyntesfield.

On arrival at Tyntesfield we were pleased to note that the scaffolding had been removed revealing the house in all its glory and we could see the new roof tiles. We assembled at the ticket office, where we were issued with timed tickets to tour the house and were then free to explore the house and chapel at leisure. Although this was not a guided tour there were guides in each room to tell us details of the history and point out items of interest. After the house we were able to roam the gardens before having an afternoon tea or coffee and making our way home.

John Gale

TOPSHAM ROUND-ROBIN BOAT TRIP

Our thanks go to Chairman David Hole and family for organising this well-attended event, with 44 members and guests present. After meeting at the Long Stay car park near the Railway Station in Exmouth in June, we all walked the short distance to Exmouth Harbour, where we boarded the 'Tudor Rose' for our one and a quarter hour cruise to Topsham.



Members enjoying the Boat Trip up the Exe

We were given a running commentary on places of interest throughout our cruise, passing some well know sites such as Powderham Castle, The Royal Marines Commado Camp at Lymphstone and the wild life

sanctuary at Dawlish Warren. We also passed the lesser-known 'Nutwell Court', which was built by Lord Dinham (later Henry VII Treasurer) during 1480. Sir Francis Drake demolished the gatehouse at great expense and converted the chapel into a library when remodeling Nutwell Court in the 1750's.

We disembarked at Topsham Harbour where we enjoyed an excellent lunch at the 'Quay Brasserie'. Again fortune came our way as the only rain we had during our full day tour occurred during this lunch stop.

After lunch we split up into 3 groups for our guided walking tour of Topsham. Formerly a major seaport the town is now of interest for its architecture, scenery and proximity to nature reserves for wading and migrating birds, such as RSPB Bowling Green Marsh on the Exe Estuary. The Dutch style houses in Topsham are dating from the time when Topsham was an important cotton port. Many of Topsham's houses are built using Dutch bricks, which were bought over as ballast from Holland to where the wool and cotton from South West England had been exported. Topsham was also home to the Holman Family, who ran a family business of shipbuilders, ship owners and insurers from 1832. Topsham has some fine examples of Georgian and Edwardian architecture, which we saw during our tour. Following a cup of tea we returned to our cars on the Topsham/Exmouth train.

Keith Morgan

TARGET 60

Further to the article in WPD Power Lines about Target 60, John Dike has an interesting background to this, since he was running Total Quality Management courses in Devon and HQ gave him a project of improving minutes lost on faults and planned shutdowns.

With faults he realised we spent too much time looking for the fault rather than restoring supplies so he suggested that we change the mindset on that and bring in a "fire brigade attitude" of getting things done quickly.

Target 60 changed the way people thought about restoring supplies overnight without costing a penny!

So you take an 11kv circuit and split it halfway on what he called "The Strategic Switch" and then try it in from one direction or other to restore half the consumers, and then further split up the faulted section, restoring customers as you go, and then you look for the fault in the last section. A plan is produced for every 11kv circuit called a CRAP or Circuit Restoration Action Plan. This includes clear instructions to find the location of the Strategic Switch as some operators on standby might be unfamiliar with that area. Speed in getting to that switch was essential. These days there is more remote control and automation. It made our staff focus on quick restoration inside the hour rather than repairs, which were more important for customer satisfaction.

He originally called it Restore 60, but Andy French at Head Office suggested Target 60. His original concept was to achieve dramatic improvements in system restoration at very low cost by changing the way staff thought, rather than by spending money on hardware.

ELECTRIC BICYCLES

Inspired by the opening of the new cycle tracks near where we live in Topsham, Marian and I decided that it was about time we braved the fresh air and took up cycling again but now had the advantage of the assistance of battery powered bicycles.

There are three cycle routes that can be ridden locally; one into Exeter, one to Dawlish Warren and one to Exmouth and Budleigh Salterton, these all have the added advantages of plenty of refreshment stops on the way.

I am told that in China production of electric bikes approaches 30 million a year and for 2011 sales in Germany were around 30,000 and the UK 25,000 were sold. After a lot of research we decided to go for a couple of FreeGo electric bikes. These Magnesium alloy framed bikes are assembled in Southampton from parts, frames etc sourced in China and are sold via a local Dealer network. You can expect to pay anything between £900 to £1500 for a decent make of electric bike.

With the FreeGo bike there are three sources of power; the first is pedal alone as a normal bike, the second is pedal assist where the motor kicks in as soon as you apply pressure to the pedals and the third is on the motor alone where the bike becomes an electric scooter although the motor will start to grunt a bit with hills steeper than about 15degrees in this mode. The bike is equipped with a 7 speed Shimano set of gears.



Brian shows off his trusty steeds

UK law states that electric bikes must be restricted to a maximum speed of 15 mph and most manufactures seem to have standardised on using a 250 watt brushless motor mounted in the hub of either the front or back wheel. Battery voltages vary for different makes with either 24 or 36volt units having a capacity of around 10amp.hrs.

The FreeGo bikes seemed to offer the largest capacity battery at 36 volts and a capacity of 17.5 amp hours. This is a Lithium Polymer unit (used in model helicopters), which is lighter than a Lithium ion battery. We have found that we are able to cycle between 50 and 60 miles between charges on average cycle tracks/roads

containing a moderate amount of short hills. The battery takes around 5 to 6 hours to re-charge.

One of the drawbacks of the electric bike is its weight. The FreeGo weighs 22kg to which must be added the battery weighing around 6 kg. An average tourist pedal bike weighs around 17 kg. As we plan to use many of the other dedicated cycle tracks in Devon and Cornwall during the summer we purchased a Thule 916 cycle rack that clamps onto a vehicle towbar and can carry two bikes. This makes it easy to transport the bikes to various destinations. After 5 months of use we are very pleased with our purchases and have noticed that more "mature" riders seem to be switching to this more leisurely form of cycle propulsion.

For any members of SWEHS who may require any further information on electric bikes I would be only too happy to assist.

Brian Grimshaw

CUTTING-EDGE TECHNOLOGY WILL BRING SS GREAT BRITAIN TO LIFE

At the end of June Ellie and I were very pleased to join 80 or so other SS Gt Britain Trust Supporters, to enjoy a delicious 2-course lunch in the ship's first-class dining room. It was a thoroughly enjoyable occasion which, with its hubbub of conversation and clinking of wine-glasses, showed how the ship once bustled with activity during voyages.

We were therefore most interested to learn that the Trust has now been awarded a grant by the Arts and Humanities Research Council, to create a unique experience in the very dining saloon where we enjoyed lunch. This special project aims to bring this part of the ship to life by installing hidden speakers down the length of the room. The visitors to the ship will hear snatches of conversation (taken from passenger diaries and letters), and will also see passengers in some of the mirrors!

The project is a partnership between the University of Bristol, the Trust and a company called Interactive Places. The installation should be finished in time for the summer holidays and should be well worth a visit if you are anywhere near Bristol harbour.

Incidentally, the ship's on-board Victorian-style toilets, which were restyled and refurbished in 2011, won two national 'Loo of the Year' awards in December!

Yes, I thought you guys would be interested in this snippet of information!

John Haynes

CHURCH TURBINES

The Church of England planned to erect 80ft wind turbines on land they own at Chittlehampton and Black Torrington in North Devon, but the plans have been received by outright opposition from the neighbouring parishes. This has brought outrage from the Bishop of Exeter as the Church hoped to generate £50,000 funds for the Diocese. In view of the opposition the plans are to be dropped.

UNDERGROUND WORLD ON A SPECTACULAR SCALE

A recent visit to Scotland resulted in an interesting visit to The Ben Cruachan Dam. Ben Cruachan is a 1126 m horseshoe shaped mountain that is the highest point in Argyll and Bute. It gives its name to the Cruachan Dam, a pumped-storage hydro-electric power station located in a man-made cavern inside the mountain. "Cruachan!" is the battle cry for Highland clans.

Work began on excavation in the early 1960s, and the station has been operational since 1966 when it was opened by the present Queen. Ownership was transferred to Scottish Power on privatisation in 1990.

Water is pumped from Loch Awe to the upper reservoir, 360 m above, during periods of low energy use. A 316 m long buttress-type dam, 45M high forms the reservoir and around 10 % of the 440MW capacity is generated from rainwater; the rest is from the water pumped up from Loch Awe.

Power is generated at 16kV and stepped up to 275kV and the four reversible Francis pump generators can supply 440MW to the grid within 2 minutes. The cable access shaft has 1420 steps making it the tallest flight in Britain fortunately we were not required to climb it. Cruachan's machine hall is the size of a football pitch by 38 m high and the cost of the scheme was £14M.

Britain has four pumped storage facilities, which can store 30 GWh between them :-

<u>Station</u>	<u>Installed capacity MW</u>
Ffestiniog	360
Cruachan	440
Foyers	300
Dinorwig	1728

As the use of renewables increases, the case for pumped storage becomes even more attractive. Currently three selected sites in Scotland are at various stages of planning (Sloy, Coire Glas and Balmacaan).

The holiday was far from over and moved on to incorporate:

- A trip to Oban
- A must do ride for Harry Potter fans with a trip on the 'Jacobite' Hogwarts Express Steam train from Fort William to Mailag
- A cruise taking us through sea lochs to the northern end of the Kyles of Bute
- A day in Edinburgh and a further cruise on the Sir Walter Scott Steam Ship on Loch Katrine

So much fitted into just seven days, further information obtainable from kdburston@gmail.com

Keith Burston

SUPPORT OF THE MUSEUM & ARCHIVES

Following a request in the April newsletter, no volunteers came forward to help publicise and operate the Cairns Road Museum and Archive Centre, which is disappointing. Please give this idea more serious thought and volunteer – we need you!

AN OLD FORD VAN

Mike Wreford's son, who is keen on cars, has found an advert for a SWEB Ford Anglia Van 1962 in Classic Cars on E-bay painted in its original colours of grey and green. It was an Exeter-based van and the price wanted was £9,500!



TURBINE NOISE

John Dike has written to the Institute of Acoustics as they are producing improved guidance on the UK Policy on how to deal with turbine noise assessments. His comments have been passed to the team producing the policy.

He has spent many years investigating noise issues in the south west and recently has been involved in looking at noise surveys carried out by consultants for wind turbine developers.

Basically many consultants are using microphone windshields inadequate to control the effect of wind induced microphone noise at the higher wind speeds of 10 m/s required for the tests. The favoured noise measuring kit is made by Rion of Japan and even their best outdoor grade windshield, according to their data, can allow a false measurement of over 50 dB(A) when the true background level may be only 30 dB(A).

Driven by generous subsidies landowners are trying to shoe-horn single turbines into areas within 200 to 400m of properties and compliance with ETSU R 97 may hang on a few decibels difference in background levels at the nearest properties, which is generally in rural areas where low background noise levels require microphone windscreens to be very effective.

Many turbines are going in that will cause serious noise issues and he is trying to achieve a fairer outcome.

INCINERATOR GENERATION

Due to the high cost now of Landfill Tax, many local authorities are investing in incinerators and there are actually over 70 sites in the UK being considered at the moment. Many of the proposed sites are experiencing open rebellion of the neighbours, due to many factors, such as unsightly chimneys, the need to keep the burning going and thirdly the microscopic particles released from the burning process. Sheffield's Council received many complaints when they decided to ship in rubbish from neighbouring councils to keep the burn going. However it is said that the Sheffield plant provides energy for about 20,000 homes.

BROWN SIGNS & THE ROAD TO WIGAN PIER

Our children have both settled in the NE of England, Richard and family in Hexham and Susan and family in Newcastle. Consequently we travel up and down from Bristol several times a year, M5/M6/A69 to Hexham and M5/M42/M1/A19 to Newcastle. On the way we pass those interesting brown information signs to places of interest such as Mother Shipton's Cave!

On our last trip we decided that we would stop off on the way and go to Wigan Pier. The brown signs from the M6 were very helpful until we got into the centre of Wigan, where they ceased. We passed the "Orwell Bar and Restaurant at Wigan Pier", close to the Leeds and Liverpool Canal, but no brown sign. Getting slightly lost, I have "Pat Nav", we took a few turns and passed the Orwell bar again and ended up in a builders yard. A helpful man then redirected us back to the Orwell and we parked up.

We approached the manager, who was directing guests for two weddings that were taking place and asked where was Wigan Pier. "It's gone", he said, "about 6 years ago". It turned out that there used to be a visitor centre next to the Orwell Bar, but no one has taken the brown signs down and so lots of folk turn up as we had. The manager very kindly arranged for us to have a pot of tea on the house. We took a walk around the canal, locks and dry dock and then found the site of "Wigan Pier". An information board gave us the history of the pier.

Wigan Pier was a "Tippler". Coal laden trucks or tubs from nearby collieries would travel down tracks to the canal. They would hit a jetty and tipple (topple over), unloading the coal into the waiting barges. There were many tippers along the canal and the original pier shown was connected to Winstanley Colliery and was known as the Wigan Tippler or the Wigan Pier.

The pier was made famous outside of Wigan by a joke and a book. George Formby Senior (the father of the ukulele playing George junior) told a joke about Wigan Pier in his Victorian Music Hall act. The writer George Orwell used the pier as a symbol of the region's industrial decline in his 1936 book *The Road to Wigan Pier*. He wrote "... even the place where it used to stand is no longer certain".

Orwell couldn't find the original pier because it was sold as scrap for £34 in 1929. Students of Wigan and Leigh College made the pier in the photograph in 1986. We continued north and the next brown sign took us to Blackpool, but that's another story. *Pat & David Hutton*

NUCLEAR HIGHER SUBSIDY?

EDF Energy UK, the French state-backed energy giant, is rumoured to be considering seeking a higher rate of subsidy per megawatt.hour generated before they will commit themselves to building the two new reactors at Hinkley Point, due to the increasing cost of the construction involved. The figures being bandied about are £165 per megawatt.hour compared with wind-farm projects planned for the North Sea at £180 per megawatt.hour.

DEVON LOCAL PUBLICITY

A review of our recent publication "Torquay's Electricity History" in Torquay's Herald Express

Power to the people

We take it for granted now but in 1898, when electricity first started to flow through the newly laid cables of Torquay, it must have seemed like a revolution. Street lights were 10 times brighter than their gas equivalent's life and the invention would pave the way for a multitude of domestic appliances which have transformed our lives.

The arrival of the electronic age in Torquay is celebrated by the South Western Electricity Historical Society in a 64-page booklet entitled *Torquay's Electricity History 1877-1948*. Authors John Dike and Peter Lamb clearly know their amps from their elbows and those with technical knowledge of the industry will find much detail to engross them.

For a layman like me, who abandoned physics at O-level, there is still much to enjoy. Like the story of the celebration party, which the Electric Lighting Committee was enjoying at the Queen's Hotel on The Strand in March, 1898, to mark the first day of operation, until the whole building was plunged into darkness. Dinner was finished in traditional candlelight.

Torquay's first power station was in the cellars of the Marine Spa. Coal was brought in by sea and there was an ample supply of cooling water. But the site was cramped and the Torquay power company eventually turned to Newton Abbot to provide the station.

The book describes how the advent of electricity ushered in the tram system and led to the building of the Babbacombe Cliff Railway. Less well known is the pre-war plan to turn Dartmoor into a vast hydro-electric plant. Eight reservoirs were proposed including dams at Dartmeet, Foxtor Mires and the South Teign. The plan was opposed by Dartmoor Preservation Association and, thankfully, dropped. (Nick Pannell)

To get a copy of this engaging book, send a cheque for £3 plus £1 for postage (payable to SWEHS) to Peter Lamb, 35 Station Road, Backwell Bristol BS48 3NH.

TIME IN TORQUAY

The thought just came to me after your excellent efforts (you & JD), to produce the book on "Electricity in Torquay"; when we are taken through some stages of the design of Prime Movers. e.g. Reciprocating steam engines, first in 1705, to steam turbines around the end of the 19th century. A relatively short time span to what we have these days, using the skills of 20 plus inventors over the years. I enjoyed reading it, and as a point of interest; one of my first jobs when I came to Torquay in 1962 was to start decommissioning the DC and 2kV systems and undertaking the large changeover schemes from 200V to 240 V. Well there we are, many changes have taken place, influencing the Electricity Power generating business. *Mike Kay*

DARTMOUTH NEWCOMEN ENGINE

Its worth noting that the Town of Dartmouth has recently had their 300 year celebration for the invention of Newcomen's Atmospheric Steam (beam) Engine in 1705. Although many more famous people had developed steam engines prior to this date (i.e. Thomas Savery); Newcomen's engine was the first to be used for pumping water out of Cornish Tin Mines and can thus be credited with the honour of being the first. This of course represents the start of the Industrial Revolution.

The working machine in Dartmouth is effectively powered by an electric motor simply to show the mechanical movement. It is open to public viewing, most days of the week. Various websites are available in order to fully appreciate the workings of the Newcomen machine and therefore not necessary to give chapter and verse on the full design and production details.

Mike Kay

NATIONAL GRID NEWS

NG has been ordered by Ofgem to reduce their capital spending programme of £26 billion between 2013 and 2021. The energy regulator has demanded a lower figure of £17 billion plus another £5 billion if it can be demonstrated to be necessary. In response NG have warned, that it could increase the risk of black-outs; and they are intent on negotiating a higher figure. I guess the final outcome of this debate will be related to the amount of undergrounding demanded for new lines.

FRACKING GAS

There's lots of news about the extraction of Shale Gas by fracking. It seems that a drilling rig near Blackpool may have caused a slight earth tremor with its dramatic process for releasing underground gas deposits. "Fracking" is a new word for hydraulic fracturing of layers of rock, by blasting in high pressure water, sand and chemicals into the natural gaps in the seams. The gas so released is then piped to the surface. The extraction of Shale Gas has been very successful in America. The process was stopped temporarily in Lancashire, but the Government has given the go-ahead now. There have been groups opposed to the drilling and I was highly amused to see on TV their anti-statement "Frack-off" !!

ALES AND VICE

Many years ago sketches were produced for the Annual Engineers' Dinners masterminded by the late Charles Isherwood some of which were made into films. Member Roger Neck sent me a shot from these showing a SWEB van from the past suitably doctored below :-



NEW MEMBERS

We have had many new members joining recently. They are Anthony Willett, Michael Kay, Graham Coleman, Michael Hearn & Harry Wright. Welcome aboard and look forward to meeting you at some time.

CORNWALL ARCHIVE

Member Eric Edmonds, who is an expert on Cornwall Electric Power Company, has deposited 11 files on CEPC to be housed with our Cairns Road Archive.

MEMBERS NEWS

Eric Edmonds – has been made an honorary Life member for his past work on Cornwall's Electricity History and reaching his ninety-third birthday. He has also passed much archival material on the Cornwall Electric Power Company to us for inclusion in our Archive.

Marcus Palmen – has passed his eightieth birthday. We wish him well. We now have three committee members in the Eighties! ***Read his brilliant Nuclear Supplement.***

Mike Hield – has had a fall and broken a bone in the pelvic area and naturally is feeling a little "under the weather". We hope he will mend fairly soon.

David Cousins – has written a book recently on the history of Bristol Engineers Association of which he is Secretary.

David Hutton – David has been a keen scout leader for many years with the 1st Little Stoke Group, but in the summer they were invited to a Jubilee Celebration where they met the Earl and Countess of Wessex (Edward & Sophie).

EEL-ECTRICITY

In a bid to meet EU targets for renewable energy, researchers at a University High Voltage Laboratory tried mating two electric eels. Unfortunately, he was AC and she was DC!!

EDU-DUCTION

A friend of mine needed training in electromagnetism. His employer sent him on an induction course!

FOR YOUR DIARIES – COMING EVENTS

Sat. 22nd Sept. VISIT – SHERBORNE CASTLE – Arrive 11.00am for coffee, then visit gardens, lunch at 12.30pm with a guided tour of the house at 1.30pm (prior to public opening).

Sat. 20th Oct. MEETING IN DEVON – "LIVING IN A LAMP-POST" Talk by Vanessa Langley
Lunch & talk at Nutwell Lodge Hotel, Lymptstone with lunch at 12.00noon, Talk at 1.30pm.

Thur. 22nd Nov. MEETING – CAIRNS ROAD – SPEAKER on "SOLAR ENERGY" Presentation by Mr Kerry Burns from Bristol based firm Solarsense.

Sat. 26th Jan. ANNUAL LUNCHEON AT THE DEVON HOTEL, EXETER Foregather from 12.15pm for lunch at 1.00pm. Speaker on "Shelter Box".

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

Thank you for all your super articles for this edition!