HISTELEC NEWS

NEWSLETTER OF THE SOUTH WESTERN ELECTRICITY HISTORICAL SOCIETY
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SWEHS FIRST PUBLICATION
A new booklet, which was launched at the AGM, can be available to members, it is **"Torquay's Electricity History"** by John Dike and Peter Lamb. It is priced at £3.00 plus postage. It is the last of the large undertakings in the South West to be studied in depth exploring the extraordinary challenges facing engineers in those early days of providing public electricity supplies.
See flyer at the end of this newsletter to obtain a copy.

18th ANNUAL GENERAL MEETING
The 18th AGM of the Society was held on 24th March at the WPD Training Centre in Taunton in the morning and was attended by some 40 members and friends. Lunch was taken afterwards at the Merry Monk.

Chairman David Hole opened the meeting and gave his report on the activities over the last year. Clive Goodman presented the Annual Accounts, which showed that the Society was in a healthy state with net assets amounting to £5,513.54.

The election of the Officers and Committee members took place for the coming year with the same officers and committee voted in for another year, but we should particularly note that David Hole has agreed to carry out a third term as Chairman, which is very commendable:-

Chairman : David Hole
Vice-Chairman : Chris Buck
Treasurer : Clive Goodman
Secretary : Peter Lamb
Committee : Roger Hughes, John Gale, Marcus Palmen, David Hutton, Keith Morgan , John Ferrier, David Peacock & David Cousins.
Ex-officio Memb. Secretary : Paul Hulbert
Hon. Accounts Certifier : David Legg

After the AGM, National Grid gave a presentation on the Hinkley C Connection. ***See report of talk given page 3.***

SUPPORT OF THE MUSEUM & ARCHIVES
At the AGM, David Cousins and Peter Lamb asked for more support for the Museum and Archives from the Membership, since both are an underutilized facility. See larger article at the end of the newsletter.

WEB SITE ADDITION
Our web-master Marcus Palmen has installed all the details of the Museum artefacts on our web site, thanks to David Cousins massive data-base on the Museum.

WPD MILESTONE
One year has passed since Western Power Distribution took over the Midlands and East Midlands distribution networks. This take-over has expanded the organisation by doubling its area of coverage to 55,500 sq km stretching up to the Yorkshire borders, but more particularly has trebled its customer base and probably its MW demand as well. Their Team-based Structure demanded more depots to be closer to the work activities, so that many new depots have been bought or others refurbished involved a fantastic organisational reshaping over the last twelve months, a considerable accolade to Robert Symons and his management team!

OLDBURY SHUTDOWN
Oldbury Nuclear Power Station finally finished generating at 11.00am on Wednesday 29th February. The station had run for 44 years and at the time of final shutdown was the longest running nuclear station in the world - quite a credit for British engineering. It entered service in Dec 1967 and had a design output of 600MW from two 313MW sets. It was the first British station with concrete pressure vessels and the first of any power station with a computerised alarm analyser with a cathode ray tube display. ***Chris Buck***

OLD KING COAL
Whilst we as a nation are cutting back on our use of coal in favour of "greener" options, the rest of the world is increasing its use of coal. The International Energy Agency (IEA) issued a statement recently "Global demand for coal will continue to expand aggressively over the next five years despite public calls in many countries for reducing reliance on the high carbon fuel". The IEA predicts that average coal demand to grow by 600,000tonnes every day over the next five years. At present coal is burnt to produce over 40% of the world's electricity with both Poland and South Africa nearing 90% and China pushing 80%. Even the USA has 50% of its electricity generation by coal. In the UK the Drax Group have scrapped plans to generate electricity with a pioneering scheme using biomass material, since they plant for that process is too expensive and the Government are not providing any subsidies. Also another missed opportunity has been the Government pulling out of the carbon–capture & storage (CSS) project at Longannet in Scotland. We could have lead the World with this CSS technology. However at the moment all is not lost, the Department of Energy & Climate Change said they would continue to support the CCS project at Ferrybridge coal-fired power station.

ANNUAL WINTER LUNCHEON & TALK –
"The Penlee Lifeboat Disaster"

Some 60 members and guests gathered at the Devon Hotel on Saturday 28th January for the Annual Winter Lunch and as promised by our Chairman David Hole, the food and service were both excellent. Thanks to Keith Morgan for making all the arrangements.

We then had a fascinating and moving talk by Mac McLaren from the RNLI on the Penlee Lifeboat Disaster back on 19th December 1981. It was enthralling and you could have heard a pin drop as Mac took us through the events of that tragic night. Mac knew many of those involved which made it even more poignant.

The MV Union Star had only been launched in Ringkobing, Denmark just days earlier and had sailed to Ijmuiden in the Netherlands to collect a cargo of fertiliser for its maiden voyage to Arklow in Ireland and with, it was thought, a five men crew. The weather was severe as the ship approached the Mount's Bay in Cornwall.

The skipper of the Union Star reported that he was getting into difficulties and both engines had failed. Assistance was offered by a tug, the Noord Holland, under the Lloyds Open Form Salvage Contract, but this was initially refused and he did not make a "Mayday" call. The unusual weather pattern resulted in the ship drifting in 60ft waves and 120mph winds 8 miles off the coast. The powerless ship was being blown across Mount's Bay towards the rocks of Boscawan Cove. The Coastguard summoned a Royal Navy Sea King helicopter from Culdrose, flown by US Navy pilot Russell Smith, but he was unable to winch anyone off the ship because of the extreme wave conditions. However, he kept watch on events from above. The Union Star had still not made a "Mayday" call and this seemed strange. A "Mayday" call would have brought in assistance from any ship that was in the vicinity.

The Coastguard contacted Coxswain Trevelyan Richards at the Penlee Lifeboat Station and he set off a maroon to summon the lifeboat crew. Sixteen men responded and he selected 7 to join him, 3 experienced members and 4 young men. Neil, the 17-year old son of Nigel Brockman, the Assistant Mechanic, asked to join the crew and was turned down by Trevelyan. Little did he know that was the last time he would see his father.

The 47ft lifeboat, the Solomon Browne was launched with difficulty due to the severe weather at 8:12pm in the dark and made its way out to the Union Star. The lifeboat was "dumped" by the 60ft waves on the Union Star twice and somehow managed to get 4 people off the stricken ship. This is where a mystery begins to unfold as the skipper of the Union Star asked for the "woman and the girls" to be taken off first. Up to this point it was assumed that there were only a crew of 5 men on board. Radio contact was lost at 9:21 and both the Union Star and the Solomon Browne were lost with all hands.

Lifeboats were summoned from Sennen Cove, The Lizard and St Mary's, but none of them were able get close enough to be of assistance. Wreckage from the Solomon Browne was found along the shore and the Union Star lay capsized on rocks west of Tater Du lighthouse. Only 4 bodies of the 16 people lost were eventually recovered.

The relations were informed of the tragedy and then the Press descended on Penlee to try and buy stories and made them up if the families wouldn't co-operate. The press even put out a story that the ships cargo was guns for Ireland! A fund was set up and money came in from all over the world, such was the effect of the bravery of the lifeboat crew. Some £3 million was collected and each family received £300,000. There was an outcry when the Government tried to "tax" the donations!

Within a day, men had volunteered to form a new lifeboat crew and a new station was opened nearby in 1983 at Newlyn. Neil Brockman later became the Coxswain of the station's new lifeboat, the Mabel Alice. His son, the grandson of Nigel Brockman, has just joined the crew. So, why didn't the skipper of the Union Castle send out a "Mayday" call for help and who were the woman and girls taken off by the Solomon Browne? It turned out that the ship had made an unauthorised stop on the east coast to pick up his wife and teenage stepdaughters and he didn't want to reveal this to the authorities.

A tabletop collection was taken and a sum of £114.39 was passed over to Mac to support the work of the RNLI.

David Hutton

NEW WIND FARM

WPD's news magazine "Powerlines" recently featured the major works involved in connecting the largest on-shore wind farm in the South West to be connected to the National Grid. This new £7million wind farm consists of 22 wind turbines of 3MW capacity each and 110m high situated at Fullabrook Down between Barnstaple and Ilfracombe. The company operating this wind farm is Devon Wind Power Ltd., which has recently been acquired by ESB, the Irish state-owned utility company.

For those who don't receive "Powerlines", WPD were involved in laying considerable 132kV cable to connect the wind farm to the existing 132kV network via cable trays within the Taw Bridge terminating in the existing Barnstaple BSP.

WIND FARM PAYMENTS

Wind-farms do get a bad press, which is not surprising when you read that last year National Grid paid wind-farms £25million to shutdown on very windy days when the generating capacity wasn't required. It seems a monstrous waste of money, because the wind-farms are getting it both ways – they get a subsidy for generating "green" energy and again when they don't!!

ELECTRIC CAR LATEST

A firm called "Chargemaster" are developing a a network of charging points for electric cars on the South Coast to start with, namely Bournemouth and Southampton. They are intending to target towns of high populations with 40 points by the end of 2012. They believe that there will be 20,000 electric cars on the road by 2020.

REVIEW OF HINKLEY POINT C CONNNECTION PRESENTATION

On Saturday morning 24th March 2012 as reported on page 1, members and guests met at Western Power Distribution's Taunton Training Centre for the AGM.

After an excellent lunch at 'The Merry Monk', we returned to the Training Centre, being joined by a further six members making 46 for the presentation by the National Grid on their proposed 400kV overhead line connecting Bridgwater to Seabank Supergrid Substation.

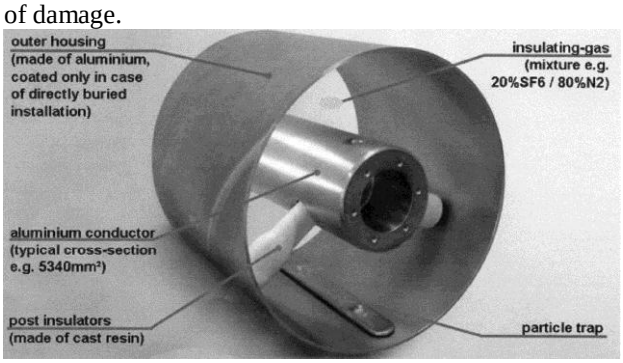
Chairman David Hole introduced the two National Grid speakers. They were: Richard Walsh, The Consents and Planning Manager and Neil Carter CEng MIET, The System Development Engineer. Mr Walsh outlined the need for the new connection. The current maximum demand is 60GW and rising. By 2016 12 GW of old Coal and Oil fired stations will have to close to meet EU standards of environmental pollution and 7.5 GW of old Nuclear plant will have reached the end of it's life.

To replace this generation and secure supplies it will be necessary to commission 20GW of new generation by 2020. This could include:-
Hinkley Point C, Oldbury B, Seabank 3 and an Atlantic Wind Array. To connect this new generation to the supergrid system some 20 options were considered, bearing in mind that the new generation has to support the South Wales system as well as the South West and Midlands. The favoured option is a 400kV connection between Bridgwater and Seabank supergrid substation and a rearrangement of 400kV connections at Aust, the Eastern end of the Severn cable.

Following an appraisal of costs, it is proposed that the majority of the connection will be a double circuit overhead line following the route of the existing 132kV lines (owned by Western Power Distribution). The preferred option will be to demolish one of the 132kV lines and use the route for the 400kV line. This will require careful sequencing and co-operation with WPD and the construction of a 400/132kV substation at or near the existing Churchill 132kV substation. Under grounding will be considered where the route crosses Areas of Special Scientific Interest, Outstanding Natural Beauty or other special features. Mention was made of new tower designs and Richard said that these will be considered depending on progress with the design. Richard then handed over to Neil Carter.

Neil reviewed the work done on costings for the various options. Comparison of overhead line and underground cable route costs are usually done on a first cost basis; the cost of manufacture, installation and commissioning. This shows a big difference, with cable routes being over 15 times more expensive than overhead lines. Consultants working on behalf of the IET carried out a comparison based on 'lifetime' costs, which took into account maintenance and other costs. This reduced the difference somewhat to around about 12 times. Options were compared on the basis of a route capacity of 6380 MVA (2x3190). Neil mentioned other possibilities:-

1) Undersea cables laid in the seabed or tunnel, this presented considerable engineering problems.
2) A DC link which would reduce some of the problems associated with long cable routes, this would need two separate circuits to give the same security of supply as the AC option and would require very close control of load flows to match system conditions.
3) Superconducting cables, the present state of the technology could involve large costs.
4) Gas Insulated Lines GIL. The conductors would be inside a pipe which is filled with an insulating gas under pressure (20% sulphur hexaflouride, 80% nitrogen). This has been used mainly for connections within power or substations, short lengths only and is presently limited to1800MVA. The pipes require level, straight runs with special units for any bends and would have to be split into 1kM sections to control leakage of gas in the event of damage.



A Gas Insulated Line (GIL) by Siemens

Neil concluded that the overhead option appears to be the best choice. National Grid are continuing discussions with interested parties and would take such steps as are necessary to protect the environment.

Member Les Davey thanked the speakers for a very interesting and informative talk and asked the members to show their appreciation in the usual way. ***John Gale***

POWER FROM THE SEA

The Climate Change Minister, Greg Barker came to Bristol recently. He was launching a Marine Energy Park for the South West. I tried to find a location for this "Park" and found there was not one site but many. The Western Morning News reported that the Marine Energy Park will gravitate around the ports of Falmouth, Hayle, Plymouth and Bristol. It will spread across the West Country with Cornwall's Wave Hub, a wave energy nursery in Falmouth Bay, research facilities at Plymouth and Exeter Universities and the National Composites Centre at Bristol. The Government believes harnessing the power of the sea could eventually generate enough energy to equal 8 nuclear power stations. He was asked about the Severn Barrage and replied that the project was by no means dead.

The firm based close to Bristol, "Marine Current Turbines" has recently been bought by Siemens, which is sad to a certain extent, but it is reported that it will enable more capital to be injected into their projects. You may recall that their first trial wave turbine has been installed in a loch in Northern Ireland and they are planning new ones off the Isle of Skye and Anglesey with a combined output of 18MW.

BIOMASS GENERATING STATION
Approval has just been given for a Biomass Generating Station to be built at Royal Portbury Docks. This is the second station to be given the OK in the Bristol area. The first being one on the old Carbon Black site at Avonmouth, which overruled the Council's decision to turn it down on the grounds that the imported fuel would be spoiling the environment elsewhere in the world. The new plant, planned by E.ON, is described as being one of the largest renewable energy plants in the UK, however it is only given as 150MW capacity, which is relatively small. But of course it will be burning sustainably sourced wood material, so we are told.

TUNGSTEN MINE IN DEVON
An Australian mining group Wolf Minerals, intends to reopen a Tungsten Mine at Hemerdon, Plympton near Plymouth. They reckon that there is enough metal there to keep the mine going for at least a decade. Defra has confirmed that the deposit in Devon is the fourth largest Tungsten deposit in the World. This is quite amazing when you consider that Tungsten filament lamps are being phased out!! However Tungsten is also used for the ball in the ball-point pen, mobile phones, and the automotive and aerospace industries.

TV SOUND
I was pleased to read the other day of a retired musician and audio engineer, Ted Fletcher, who has developed a speaker system for flat screen TV's. He said, "Anyone who has bought a flat-panel TV quickly realises it sounds rubbish". I bought a Samsung TV set for the kitchen and was disgusted with the poor sound quality, which is particularly bad for the likes of me with two hearing aids. I went back to the supplier, who confirmed that the ribbon speakers on the bottom of the TV sets are inferior.

Ted Fletcher has developed his equipment the T12 Sound-Bar in his own laboratory in his retirement in Torquay and set up a company called "Orbitsound". The units are being manufactured in Shegzhen, China with 20,000 sold last year, and marketed at £299 each.

In his past working days he designed sound systems for well-known bands often touring with them such as The Who, Jethro Tull and Elton John. ***Peter Lamb***

ELECTRIC MILK FLOATS etc
A new book has just been published "Electric Avenue – the Story of Morrison Electricar" by Keith Roberts (cost £10.99). The Midlands based company, Morrisons started out in the 1890's making push-bikes and motor-bikes. They were asked in 1933 to produce a vehicle that could deliver goods more cheaply than with a horse! They then made two electric vehicles, known as Terrier and Mastiff. In the late 1930's they were producing 7 out of 10 electric vehicles for the UK market, but they never had a production line, preferring a batch system tailored to their customer's requirements. After the war production was moved to Tredegar in South Wales. There they made a production model Austin Electric Mini in 1972 and even electric buses for Leeds City Council. The Welsh factory was closed in 1982.

NUCLEAR PULL-OUT
E-ON & RWE, the two German electricity supply companies have pulled out of building nuclear power stations in the UK, which leaves the Government energy policy in tatters.

LAMP BULBS
I have been puzzling for some time why many shops are still selling clear filament lamps, whereas you can't get a pearl lamp anywhere. My problem has been that I require golf-ball size filament lamps for many of the fittings in our lounge. The reason I have just found out is that the European directive of 2009 has banned pearl lamps since they can be replicated by CFL low-energy lamps, but they can't make the clear ones. However I have an answer to my problem, a local supplier is stocking new very small halogen lamps which offer a screw-on top replicating a pearl output. ***Peter Lamb***

SCOTTISH TIDAL POWER
A fascinating talk was given in Bristol to the Retired Professional Engineers' Club in March by the Project Manager of Meygen Ltd., David Collier. His illustrated talk showed the complete project designs for a major tidal power scheme in the Pentland Firth between the Isle of Skoma and mainland Caithness. The site enjoys an incredible position of sea movement between the Atlantic Ocean and the North Sea. He showed various types of designs for mounting on the seabed and also explained the necessary reinforcement of the national grid in that area to connect up such a large generating facility. The initial installation is planned for 20 marine turbines at 1MW each giving 20MW and later with a further 65 turbines. They estimate that it is feasible to install up 400MW of generating capacity at this location. They are backed up by a larger outfit called the Atlantis Resources Corporation all based in London and claim to have involved Rolls-Royce at this early stage of development.

SUSTAINABLE BACKWELL
Our large commuter village of Backwell has an active group, called "Sustainable Backwell" and they are being funded by the Government by a sizeable amount of money. But I find also that a number of other villages and Towns south of Bristol are being similarly funded from a Sustainable Energy Centre in Bristol and also involved is another group "Converging World". Volunteers are promoting solar panels, loft insulation, cavity wall insulation, energy advice and so on. It makes you wonder how many groups are jumping on this green energy band-wagon? Any in your territory? I am not against green energy solutions, but I do wonder whether this drive is cost effective. ***Peter Lamb***

MEMBERS NEWS
David Rees – David has been diagnosed with a cancer and is undergoing chemotherapy, but is very positive about it. We wish him well with his treatment..
John Coneybeare – John has been sworn in as Chairman of Bristol Brunel Probus Club, following in the footsteps of Peter Lamb and John Haynes.
John Haynes – John has left the Cheddar Male Choir and joined the Congresbury Singers, which is closer to home.

BELLING COOKERS

We have been approached by Belling, who wish to do some food forensic testing at our Museum as a PR stunt to find out what has been cooked in our Baby Belling in the past. They are also interested in our very old Belling Cooker No.34 in our collection. See picture in adjacent column and watch this space for further news.

WANTED MEMBERS SUPPORT FOR THE MUSEUM & ARCHIVES

We are looking for members who would both promote the Museum and/or get involved in researching the Archives, producing electricity histories of their choice to be published in the supplements of the Newsletters or in book form. It is intended to form a sub-group in the Society with these two aims. There will be no committee structure and a meeting may be convened only once a year at everyone's discretion, but everyone will be expected to be pro-active!

To give the support needed for the Museum and Archives, we need members with an interest in this type of work and have time to travel to Cairns Road only occasionally to assist us and maybe local museums/ public record offices. For members unable to travel but interested in helping, we are looking to provide more archival material including photographs on our website and also to be researched 'at home'. At the moment Peter is the only person doing any promotional work to bring groups to the Museum and carry out any research activity. Much work has been done over the past years at Cairns Road to provide a first class facility and more is needed, but with few visitors to view our efforts, it is very frustrating. There is so much material to unearth in our Society's archives, which are sadly so underutilized.

David Cousins & Peter Lamb

Please ask your friends if they are interested in getting more involved. Contact Peter Lamb if you wish to help.

FOR YOUR DIARIES – COMING EVENTS

Sat. 19th May VISITS TO OAKHAM TREASURES AND TYNTESFIELD HOUSE

Oakham Museum in the morning followed by lunch at the Failand Inn and Tyntesfield in the afternoon.

Tues. 26th June EXMOUTH BOAT TRIP – Meet at Exmouth for 11.00am boat trip to Topsham for a pub lunch followed by a guided tour of the ancient port of Topsham & return by rail..

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).

SEE OVER FOR DETAILS OF THE SWEHS NEW BOOKLET ON "TORQUAY'S ELECTRICITY HISTORY". You could order one!!

SWEHS Belling Cooker No.34, probably 1925

ELECTRICITY POEM – *Found in the Torquay Archives dated 1933.*

1833 -1933
In days of old, so we are told,
Wives stayed at home, they could not roam,
To keep homes bright was their delight,
So all the day they worked away,
They never stopped until they dropped,
Those wives of old, so we are told.

Those wives of old, they were not told,
Of future homes, electric homes,
Kept clean and bright by labour light,
Homes of pleasure, with hours of leisure,
The modern home is the electric home,
So start today, the electric way.

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