When Electricity came to Bridlington

Bridlington's streets had been lit by gas from 1833. Many felt the price paid to the private gas company monopoly which provided this service was exorbitant. About the same time Michael Faraday was developing the principles of electromagnetic induction needed to generate useful electricity. Efforts were soon made by people such as Joseph van Malderen, a Belgian, to develop a generator to produce electricity. He used the electricity to electrolyse water into its constituent gases which produced a bright white light from an incandescent block of lime – lime light. Much later, in 1878, Joseph Swan of Sunderland was the first to invent the carbon filament light bulb. When this was proved, Thomas Edison lost his law suit against Swan and instead joined forces with him to start the "Edison & Swan Electric Light Co." in 1883. The tender to supply lighting to Bridlington was opened up in 1889 to include the electricity option, but the reliability and cost advantages were doubted. In 1890 the promoters of the light railway to Flamborough intimated that part of their plan was to set up a generating station in Bridlington which could also provide street lighting, but the council did not want another monopoly, and continued to feel that reliable electric street lighting on a large scale was still unproved.

However the case for electric lighting was growing strongly and Victoria Mill on the Gypsey Race behind Manor Street, at the time a redundant saw mill, gained new life as Bridlington's first electricity generating station 1890. Victoria Mill is today Tony's Textiles. Messrs Lacing, Wharton & Down offered to light only the Princes Parade with electricity providing everything but motive power. Messrs Everingham & Burrel supplied the motive power with an 8 hp gas fuelled engine and driver for 18 weeks at a cost of £50. So for the first time on 19th June 1890, 7 arc lamps and 33 incandescent lamps lit the Parade with an extra 14 incandescent lamps in the Victoria Rooms. Arc lamps gave a bluish light and there were concerns at first that ladies would not sit under them for fear of looking bilious. The electric lights were operated in the summer only, supplementing the gas lights which operated all year round. The cables were run overhead on poles from Victoria Mills to the Princes Parade but in 1895 were re-laid underground when the lighting was extended to light "The Cliff" as well.

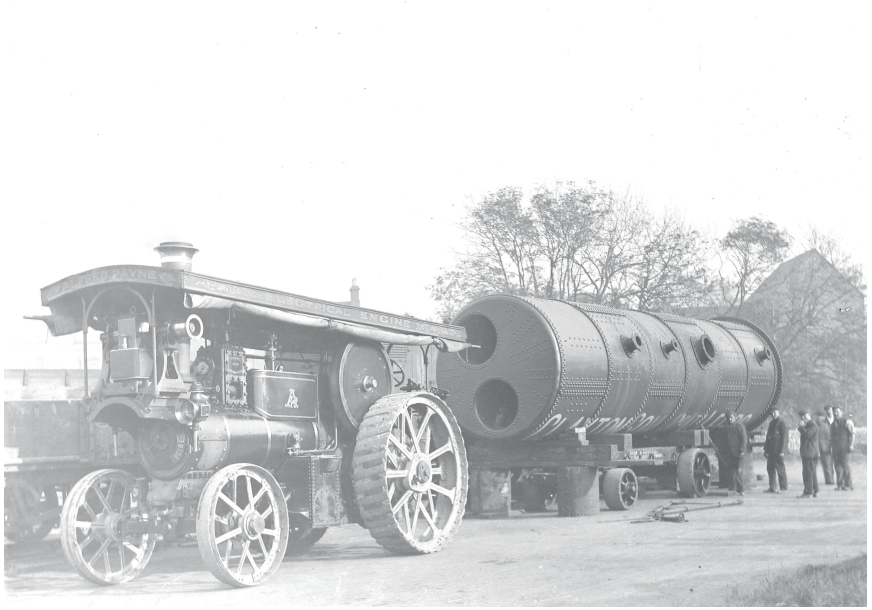
Princes Parade with arc lamps on the tall columns and gas lights in their spherical glass covers

By 1899 there was government encouragement for Councils to take ownership of Electricity Companies and the council made its first moves to develop its own electricity generating station, seeking permission for street works to lay cables. A site on Brett Street for the generating station was eventually chosen. Tenders for the various parts of the work were opened in May 1903 and, where possible, work was given to local firms and not to "foreigners", e.g. a Doncaster firm!

The Corporation touted for customers. The Lloyds hospital, which was always short of cash, said "the time is not opportune". When eventually the hospital got electricity the X-ray machine was described as "primitive and dangerous". The high tension wires were naked and glowed in the dark. A doctor said, "I could light my cigarette from them".

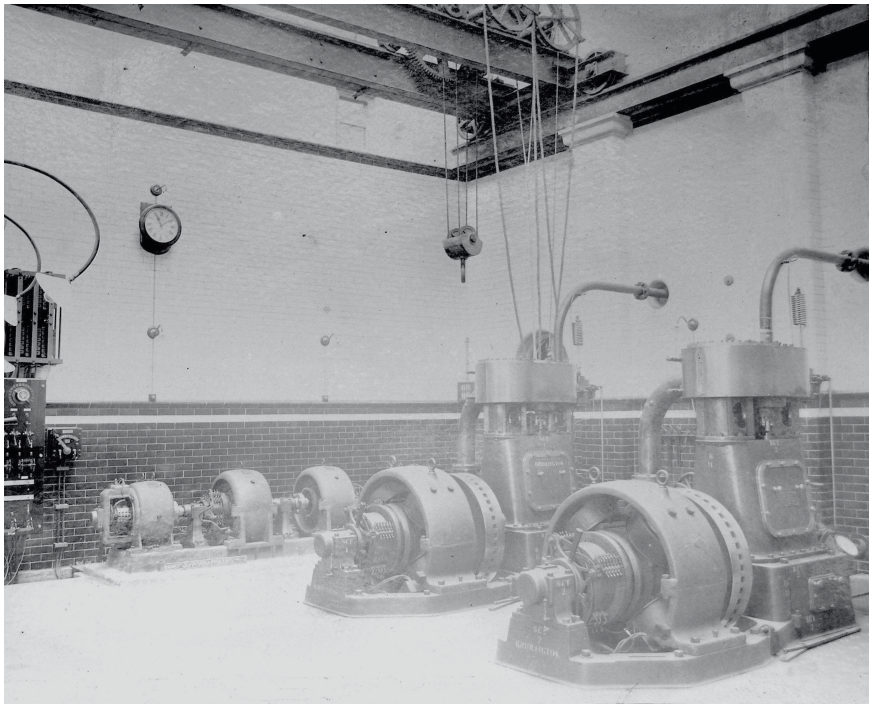
The Clerk of Works for the construction of the generating station was Mr. Arthur Becket of York who later became the Chief Engineer and eventually the Borough Electrical Engineer. Through the research to

produce this article, he has become one of my local heroes. I wish I could have met him. At the completion of the work, 60 workers were entertained to a “dinner and smoking concert” at the Sterling Castle where Mr. Brackenbury “introduced his gramophone & gave several comic selections”.



A boiler arrives hauled by a steam traction engine

The Electricity Generating Station was opened on 1st March 1905 by the Mayor Alderman Field. He described the 130 foot tall chimney as “a structure, which is said by those who know one chimney from another, as one of the finest of its kind in Yorkshire”, a somewhat qualified endorsement. The stack was designed for additional use as a refuse incinerator but this never happened. The station had two boilers, each 7’ 6” diameter and 30’ long, which arrived from Claytons the manufacturers towed by a steam traction engine. Two generators were installed, each of 100 kW capacity with space for a third rated at 200 kW with the Flamborough Light Railway in mind. These were direct current (DC) machines, not alternating current (AC) as we have today. This had the advantage that power could be stored in batteries. The town’s electricity supply was 220 v DC.



The original steam engine driven electricity generators

From the start, as well as supplying 32 arc and 410 incandescent street lamps, there were 90 private consumers including Gatenby’s in High Street and Garlands on the Promenade. By the end of 1906 this had grown to 229 private customers. Although electric lighting proved to be more expensive to run, gas lighting tended to be left on, so electric lighting proved to be cheaper overall.

The new power station meant that Princes Parade could have lights galore, strung along poles and across overhead arches. This attraction became “The Garden of 1000 Lights”.

The street lighting in Bridlington was divided into three areas and there was a control pillar in each area. One of these pillars still exists at the corner of St John’s Street and Baylegate. Each section could be switched on and off from the generating station. This was another big advantage over gas street lighting where each lamp had to be

Lights galore on the Princes Parade. Men, in front of the lady in the foreground with the elegant white dress, are carrying even more strings

individually lit and extinguished.

In 1926 there was an exhibition in the Victoria Rooms to promote domestic use of electricity including, demonstrations of “suction sweepers, washers, irons, fires, gramophones, and wireless sets with loud speakers”. Charges for electricity depended on usage, lighting use was dearer than cooking, and cinemas had a special low rate. By now, with all these additional electrical gadgets and industrial electric motors to supply, the output of the generating station was 2000 kW, ten times the original capacity.

The Electricity Supply Act of 1926 set up the Electricity Commissioners, and in 1927 they looked at the stretched Bridlington supplies and suggested joining forces with Scarborough linking the systems. The Commissioners also developed the National Grid System between 1926 and 1937, and in 1932 Bridlington was connected to it. This necessitated the conversion of all connected equipment from DC to AC.

In 1930 an excellent, un-parochial and far sighted lecture by Captain Beckett extolled the virtues of AC over DC and large scale grid generation, with a full appreciation of the future national and international effects from the increased efficiencies that we can now say came to pass. As I say, a local hero.

The Bridlington Generating Station closed down in August 1932 with a loss of 8 jobs. Various efforts to immediately sell the premises fell through and it became depot and offices for electrical distribution staff. The local authority role became to purchase electricity in bulk and sell and distribute locally.

In the 3 years up to 1939 electrical consumption in Bridlington increased by 23% per annum. New offices and a showroom were built in 1938 (opened in 1939) in Quay Road at the corner of Oliver’s Lane. Their existence was short lived however. A 1000lb bomb destroyed them on 15th February 1941, but that’s another story.

Bro Rick Hudson,
based on a presentation about Bridlington’s utilities given to the Bridlington Augustinian Society in 2009.

The Brett Street electricity generating station with its prominent chimney which once dominated the Bridlington skyline