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| **SCRIPT.** | **CONTENT** | **LOGIC** | **NOTES** |
| 001 | <<It’s 1885. You’ve spent the past few years living in London, studying with the Worshipful Company of Spectacle Makers – but now you’ve returned to your home in Aberyswyth. A small legacy from your grandfather has given you the means to purchase the lease on a very attractive set of shop premises – and you are looking forward to developing your own optician’s business  Aberystwyth is a great place to be - the town is booming – the railway now runs directly to London (through Carmarthen), the harbour is bustling with boats and shipbuilding yards, the gasworks and the slateworks are thriving, and the town receives many visitors from all over Britain every year. The future looks good!  One slight problem, however, is the lack of lighting in the town. Fortunately, most tourists come in the summer months, so dark streets are less of a problem for them. But your time in London has shown you how popular well-lit streets are. And the more people in the town, the more money in the pockets of the shopkeepers.  You decide to stand for the Town Council, on the basis that Aberystwyth needs proper public street lighting, for the welfare of individual citizens and for the continued prosperity of the town. Somewhat to your surprise, you succeed (you’re only 25 years old, after all). Now you need to figure out how to meet your promises. >> | 002 | Appear as typewriter.  All as voiceover |
| 002 | You need to decide how to light the streets. The Gas Company already provides some street lighting – should they be allowed to put up more lamps? Or what about electricity – could that work? Who will you consult?  ||**The Town Clerk:** It is very costly, but there is a great advantage in the electric light. Towards the end of August, the promenade pier is almost always in darkness – it would be an advantage if we could, by means of electric light, prolong the tourist season. Perhaps we could use the electricity on the promenade, and gas for the rest of the town?||  **||Fellow councillors:** We believe that electric light is so dazzling as to be injurious to the eyes. Not pleasant at all. We’re sure we don’t want to see Aberystwyth like Blackpool. Also, it sounds very, very expensive. We should stick with gas.||  **Hoteliers:** Visitors who come from large towns complain of the darkness of the Parade after nightfall – and whatever adds to the comfort of visitors, promotes the general prosperity of the town, which depends greatly on their custom. Electric light on the promenade would be most satisfactory  **||Professor Jones, University College of Wales:** I have recently perfected arrangement for introducing electric lighting into the College, using a Crompton dynamo, which gives a light of nearly 2000 candle-power, and I am now negotiating for batteries in which to store the energy. This will be the basis for the school of electrical engineering that I intend to set up at the College – but I am very willing to offer my expertise to the Town as well||  Will you choose **gas** or **electricity**? | Gas (003)  Electricity (004) |  |
| 003 | Feeling is very much against you: the Town Council is viciously attacked in the local paper  “The Gas Company have not treated their customers well, but have used their monopoly as monopolies are generally used. The price paid for gas at Aberystwyth is excessive, and we should very much like to see the consumer whose bill is less than it was when gas was much dearer than it is now. Anybody who reads the full report of the proceedings at last Tuesday's Council meeting may well despair of a reasonable conclusion being reached on any question which demands average business sagacity!”  Choose **Electricity** or move to **Water White Elephant**. | Electric (004)  WW-Elephant (move out of story) |  |
| 004 | The Council are willing to have the town lighted by electricity provided it can be done at reasonable cost  The town clerk finds himself quickly inundated by applications from power companies eager to set up in the town, including the gas company. Some of them plan to use coal to produce the electricity, some will use gas. Should you contract with a private company to do this work? Or should the Town Council employ people directly? Or should you wait awhile – improvements are constantly being made, and it would be a mistake to invest in a system that became old-fashioned too soon. | Wait and see (005)  Go ahead (006) | [find the logos if we can for this page] |
| 005 | You decide to visit Weston-Super-Mare, another spa town similar in size to Aberystwyth, which has gone ahead and used electric light for its promenade. When the local paper gets wind of this, you find yourself the target of very angry local opinion  “Aberyswyth, which has special facilities in the way of water-power, will be about the last watering place in the kingdom to take the subject of electricity under proper consideration!”  Even worse, you read that  “Within a month, the town of Dolgellau will be lighted by electricity. This is a somewhat startling announcement, as Dolgellau is not considered to be a very go-ahead place. Aberystwyth has done nothing, while Dolgellau, without any trouble or expenditure whatever obtains the electric light and saves money by the transaction! We do not feel disposed to tolerate the yellow light of gas if Dolgellau for a paltry eighty pounds a year can enjoy the blue flame of electricity!”  Will you **Go ahead** or go to **Water White Elephant** | Go ahead (006)  WW-Elephant (move out of story) |  |
| 006 | The first question, then, is how the electricity generators will be powered. That will determine whether the Corporation contracts with a commercial operator, or goes it alone. So - will you use **gas** or **coal**? There is also now another possibility – you could use **hydro-power**?  **||**Town Clerk: In the short term, gas is the cheapest and quickest of all. The gasworks is already present in the town, and while the cost of gas per meter is considerable, this would not involve any further capital investment by the town. Of course, it would also further extend the monopoly of the gas company, but this option fulfils the Council’s concerns about reasonable cost most directly.||  **||**Town Councillor: You can’t make gas without using coal – so we might as well power the generator with coal first as last. The trains will fetch it up from the mines down South so we will always have a ready supply: as long as there are people in the Valleys, they’ll be fetching coal above ground in South Wales! It might cost a little more to begin with, but it’s not good business to support a monopoly. Unless it’s your monopoly, of course. ||  You also see a letter sent to the local newspaper. It’s from someone who was at the latest meeting of the British Association, where all the most up-to-date scientific developments are discussed  **||**Mr James: Sir, at a recent meeting of the British Association, the President of the Mechanical Section told his audience that shortly, the waterfalls of Wales would power London offices – if the waterfalls at Furnace and Devil’s Bridge can produce electricity for the capital, why can’t they do so in here in Aberystwyth? Why don’t we utilise hydro-power to electrify the town? We have a plenitude of water – let us use God’s free gift to let there be light!|| | Gas (007)  Coal (008)  Hydropower (12) |  |
| 007 | $Gas – direct push | 009 |  |
| 008 | $Coal – direct push | 009 |  |
| 009 | Acting as Chair of the Public Lights Committee, you accept the offer of Messrs Hall & Co (Liverpool) to install electric light on the Promenade as an experiment – using the University College electrical apparatus.  This does not meet with unanimous approval, as a letter to the local papers indicates:  Sir, I shall be glad to draw attention to the unmitigated nuisance which the electric light has created. Hundreds of children assemble in the evenings, and not only do they play marbles, but they rump about in a most reckless manner, to the inconvenience and discomfort of peaceable citizens. Some means should be adopted to put a stop to this nuisance, or we shall all pray to be allowed to live in darkness and quietness.  Yours obediently, DISGUSTED  But most of the town’s population is pleased – and much prefers the white electric light to the yellow gas light. As an optician, you very much believe that the white light is better for the eyes. The experiment is declared a complete success, and arrangements are made to continue to electrify the main streets in the town  It’s not too late to change your mind about the power source, though – are you sure you want to stick with [[print $]]?  **Yes**  **NO** | Yes (010)  No (012) |  |
| 010 | Laying cables and erecting lamps takes longer than had been thought – again, much to the annoyance of the local paper  It is suggested that a torch light procession should be formed at Aberystwyth to go and have a look for the electrical light. Why not? There have been torchlight processions for more trivial objects. | 011 |  |
| 011 | But finally, in October 1894, all your efforts are crowned with success when the Lady Mayoress turns on the switches at the Generating Station in Mill Street. As the newspaper put it,  Mr Green, the local engineer, set the powerful generating machinery in motion, the dynamos spun round with a hum, the blue electric sparks immediately appeared on the accumulator, and outside in the town, the Esplanade and some of the principle thoroughfares became brilliantly illuminated. For fear of accidents, a large assembly was not allowed at the Station, but outside on the Promenade, the effect of the ceremony was watched with great interest by thousands of people, including hundreds of visitors who still nearly fill all the apartments on the sea front  Within six months, the Distribution Station for supplying private houses and local shops will go into operation – the bright lights of Aberyswyth will shine like a beacon across the Irish Sea, and the town will be ready to welcome visitors during Spring and Autumn as well as the Summer months. The charms of Cardigan Bay will be almost inexhaustible. You are immensely gratified, and your speech at the Inaugural Banquet reflects your optimistic regard  <<Aberystwyth has no great factories, warehouses, or docks, but the eyes of the rising population of Wales are undoubtedly turned towards it. The aspirations of a revived patriotism has marked out for Aberystwvth a special work to do. (Applause.) It seemed to be at once a symbol and centre of Cambria Redivivus. The narrow spirit and divisions which characterized Wales in the past are vanishing like the mists of the morning, replaced by a sense of oneness and brotherhood among Welshmen. We want some symbol of unity, of localisation of the new national sentiment, a home for the institutions which would rise to guide and govern our country in time to come. We want a future for the Wales of the future – and Aberystwyth is that place. (Hear, hear). It is the connecting link between North and South, the home of the University, the first material step in the realisation of the Welshman’s ideas. Ladies and gentlemen – I give you Cambria Redivivus!>>  You do wonder, sometimes, what would have happened if you’d pushed your fellow Councillors to choose water power. But what will be, will be. | Push out to debrief. |  |
| 012 | Remember, this is the most expensive of the options. No private company is willing to do this – and the Corporation will have to borrow a lot of money to develop the infrastructure needed. But in the long term, it will work out much cheaper than the other two – and remember, Aberystwyth wants to sell itself as the Biarritz of Britain – how many visitors could you attract if you could promise clean air as well as healthy water? So – are you sure you want to use hydro power?  **NO**  **YES** | No (008)  Yes (013) |  |
| 013 | But where will you build the power station? A gas or coal power could be sited anywhere – but you need a source of water power. So – will you use one of the two local waterfalls, or build a reservoir?  **||Devil’s Bridge Falls**: This is a very powerful waterfall. But it also has deep roots in local history, as well as being awesome to regard. Converting it to industrial use will destroy something important to the landscape. It’s also quite remote – twelve miles away! Like Nant Y Moch, you’d have to build a line to bring the power to the town – that would add considerably to costs.||  **||Nant Y Moch:** You could dam the Rheidol river, and create a reservoir – that would give a guaranteed flow of water. But it’s the most remote of all the options. You’d have to build a line to bring the power to the town – adding considerably to the costs.||  **||Furnace Waterfall:** This is not quite as powerful as the Devil’s Bridge falls, although it too is deeply rooted in local history. Converting it to industrial use will destroy something important to the landscape. But – crucially – it’s near the railway line, which already has a telegraph line. And the railway could be used to bring in resources efficiently, as well as getting the power out. This could be the cheapest option. ||  **DEVIL’S BRIDGE**  **NANT Y MOCH**  **FURNACE**  [Devil’s Bridge and Nant Y Moch are both prohibitively expensive – you have to choose again until you either pick Furnace or go back to coal] | Devil’s Bridge (014)  Nant y Moch (014)  Furnace Waterfall (015) |  |
| 014 | You are told by the Town Council that this option is prohibitively expensive. You’ll have to find **somewhere else**. | Somewhere else (013) |  |
| 015 | Following the Corporation’s agreement to borrow money to build an electricity generating station at Furnace, Aberystwyth can now promote itself as truly the Biarritz of Britain. No other spa town depends on hydro power to this extent – and no other spa town has a University College on which to draw for technical expertise. As your opticians shop prospers and your influence in the town increases, you are invited to sit on the University Council in 1900 – in fact, you’re one of its youngest members. Partly as a result of your influence, Professor Jones is successful in establishing his Department of Electrical Engineering.  Aberystwyth – the ‘No-Coal Capital’ of Wales - goes from strength to strength, with visitors and long term invalids coming from as far away as Eastbourne to enjoy the only clean-air spa in Britain. At the same time, the University is starting to build on its strengths in combining theoretical with practical knowledge. | 016 |  |
| 016 | You have a conversation with Professor Jones  //My dear fellow, have you met this new young chap Stapleton? He’s just come from the Royal Agricultural College, and has the most marvellous ideas about plant breeding. Why not have a chat with him about the possibilities for an electrical agriculture?// | 017 |  |
| 017 | By 1919, the Electrical Engineering and Plant Breeding Institutes have combined to form the Welsh Institute of Science and Technology, based at Plas Gogerddan, half way between Aberystwyth and Furnace. You are still active in local politics – sixty isn’t old in the twentieth century! – and you are very aware of the possibilities that the cheap electricity available locally offers    For example, as an optician, you’ve been working with aluminium throughout your professional life. It was rather expensive, when you were young – but it’s becoming cheaper, and a lot more useful, when alloyed with other metals. In order to process aluminium, what you need is a lot of electricity – and Aberystwyth is now the UK’s foremost producer of cheap hydro-electricity. | 018 |  |
| 018 | You have a conversation with Dr Evans, Professor Jones’ successor, and now the Director of the Welsh Institute of Science and Techology.  //Look here – the Town Council has been receiving a number of applications from this company in Dolgarrog. They want to lease a site at which they would produce aluminium, and the Council is disposed to approve. Before that happens, why not see if they might be useful to you? //  //Dr Evans – Goodness. You mean get involved with commercial development? //  //Commerce pays the bills, dear boy! Your colleague Stapleton doesn’t despise it, and neither should you. I do very strongly advise you to make contact with these people. Aluminium is really a very useful metal – it’s light, it’s strong – it’s the kind of thing the Royal Air Force really needs to be using instead of wood in their planes. I’ll have a word with the Vice-Chancellor.// | 019 |  |
| 019 | After discussions – which involve contacts with the Air Ministry, who are indeed very interested in the possibility of a source of cheap aluminium – a collaboration agreement between the University, the Town and the Government is formed. As a first step, Cors Fochno – a large bog just north of Aberyswyth is drained, providing a substantial area of flat land suitable for development – and right next to the railway. Part of this will be taken up by factories, but there are also plans for an experimental airfield – there’s the whole Irish Sea to crash into, should things go wrong, after all.  There is some local opposition  **//Professor Stapleton:** Anyone who interferes with the shapely outlines of the Cambrian Mountains is a criminal and should be treated as such!// | 020 |  |
| 020 | But there is plenty of nature elsewhere in Wales – Stapleton can take his walks further up in the hills – Pwllperian comes to mind. | 021 |  |
| 021 | By the 1930s, Aberystwyth is a major centre of techno-scientific expertise, the original electrical engineering department now supported by materials science, maths and physics – not to mention the influence of its agronomic scientists. Its harbour is as busy as it was fifty years ago, when you returned to the town, with goods and people being shipped in and out, and now with the added benefit of a sea-plane base. The town is a centre of excellence for experimental aeronautics.  Many of the people visiting the town are, sadly, refugees from the Continent – many of them, excited by the work taking place at the University, and encouraged by the clean air and lovely local scenery, decide to settle there. Aberystwyth feels safe – protected by the Cambrian Mountains, and out of the reliable range of long-range bombers.  As tensions between Britain and the Nazi government increase, the Air Ministry decides to relocate the Royal Aircraft Establishment from Farnborough in Hampshire to Aberystwyth. There, out of bombing range, it is well placed to continue to research and develop aircraft design and to build aircraft to keep control of the skies over Britain, the Irish Sea and the English Channel. Links are made with the Boeing Corporation, and the area becomes a base for the development of American bombers to fight the war over Germany. There is even the suggestion that a British rocketry programme might begin – once the war is won.  At the end of the war, rather than being a means through which the American military could more easily reach the Continent, Britain has been the place where Americans learnt about modern aeronautical warfare. She – and Aberystwyth – are well placed to stand as America’s equal in the work of rebuilding the Continent. | Push out to debrief |  |