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Environmental & Sustainable Consultancy Team

"We need to defend the interests of those whom we've never met and never will."

Earth Hour Consultancy report

For Mr Garry Charnock



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Executive Summary

It is often difficult to fully engage a community when it comes to sustainable events, especially when residents of a community are asked to go out of their way to do something. This report takes a well-established sustainability event “Earth Hour” and uses it as a tool to evaluate effective methods in community participation in the event through a variety of strategies. The project also goes deeper to understand the behaviour of resident’s energy usage during the event thanks to unique access to energy measuring equipment by Scottish Power Energy Networks.

The village chosen was the small rural village of Ashton Hayes, well known for its carbon neutral aims and the results show that the village on the whole participated well and engaged with the idea of Earth Hour. However, energy saved although effective during the hour, after the event energy consumption rose to excessive amounts, so somewhat cancelling out the energy saved.



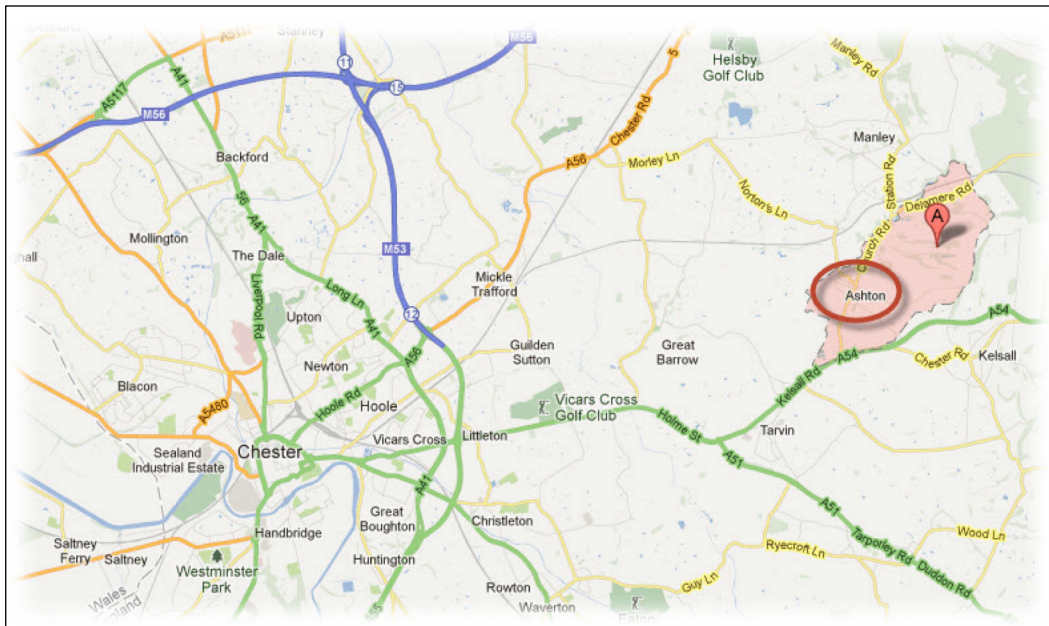
1.0 Introduction

1.1 Earth Hour is a global event which is run by the World Wildlife Foundation (WWF) every year. Earth Hour aims to encourage governments, businesses and people to switch off their lights at the same day between 8.30 and 9.30 pm every year. This year Earth Hour fell on the 23rd of March (WWF, 2013).

Earth Hour is used to help promote sustainable issues amongst the general public and hopes to promote sustainable thinking. Earth hour is the world's largest mass participation event in history with over 7000 cities in over 7 continents taking part.

1.2 The location for this event is a small rural village approximately 5 miles east of Chester, see figure one. It has 1000 residents and aims to be the UK's first carbon neutral village. The carbon neutral project in the village began in 2006 and since then carbon emissions have been reduced by 23% (Going carbon neutral, 2012).

Fig.1 – Map of Ashton Hayes (Google Maps, 2013)



1.3 This report has been commissioned by Mr Garry Charnock the head of Ashton Hayes Carbon neutral program and Scottish power energy networks to understand and assess the level of engagement with a sustainable event.



2.0 Objectives

- 2.1** To liaise with Garry Charnock to promote an earth hour event in the village of Ashton Hayes.
- 2.2** To liaise with Scottish Power Energy Networks to assess the impact of the event

3.0 Methodology

3.1 As the project was very community based and relied heavily on the participation of the residents in the village a strategy was needed that exploited the maximum potential of engagement. For any project to be successful, especially sustainable thinking events, the participants must be aware, motivated and educated about the event (Preston, 2012). A three tiered approach was taken for the village of Ashton Hayes that educated, motivated and raised awareness about Earth Hour in the village. As the location for this project was in a rural village, the team exploited the strong sense of community to their advantage when implementing the three approaches, which are as follows.

3.2 Tier One: Bottom up approach – “Get the village talking”

The first strategy employed by the team was to engage and promote the Earth Hour event in the village. As the village is relatively small and stoic in nature, new information, especially new promotional posters would be recognised by the residents. It became clear through one of our stakeholders that one of the easiest ways to communicate new messages and events through the village was via posters on lampposts around the main street in the village. Such techniques have been used in the past in the village by the Carbon Neutral Ashton Hayes group, to great success.

It was decided therefore that posters were the best tool to use to raise community engagement and awareness. Posters allow as little or as much information to be placed around key locations in the village and are often relatively cheap to produce and more sustainable than pamphlets (Foster, 2008). Posters are usually very visually appealing and often have an image that draws the reader’s attention in before the information is conveyed (Nocom, 2009). Many successful advertising campaigns in recent years have used an iconic image or a very eye catching image to grab the reader’s attention and then keeps them hooked by offering only little information (Scott, 2013). Such a strategy is used to create free publicity by getting the general public to talk about the poster as they try and search for more information (Foster, 2008). It was decided that for this project a similar approach would be taken to create a sense of talk amongst the villagers.



One week before the event the team placed numerous poster designs around strategic locations in the village. The posters were visually appealing and used a mixture of iconic images and the teams own designs to create a hook for the residents. Little information was offered on the posters so that the residents would hopefully question why and what earth hour was and why the posters had been put up and by whom. For each design and examples of each poster please see appendix one.

3.3 Tier Two: Top down approach – “Education and further promotion”

Once the village were hopefully talking about the posters, the team employed the second approach which was focusing on educating the children in the village. One member of the team has worked in a secondary school for five years and was on the board of governors for two years. This experience in the team helped to highlight that one strategy often employed by schools for any event was to try to enthuse and educate the students about the event. By doing this, it is often the case that the students tell their parents and their parents tell their parents and or friends and so a ripple effect occurs (Newman, 2003). Such a method works much better the younger the pupils are and this is one reason why the team focused on year five and six pupils at Ashton Hayes Primary School. The school was also chosen as method for engagement due to primary schools in rural villages are often seen as the ‘heart and soul’ of a village (Bauch, 2001) and through this they often hold fantastic networks of information and provide the village with a node of information, news and an infrastructure to hold events (Lyson, 2002). This further justified the use of using the school for this project.

The team liaised closely with Mr Chris Pridley the headmaster of the school and a day was arranged where the implementation of their second strategy could be done. The team had two members who have both taught in schools before. Drawing on this experience an engaging lesson was taught to a year five and six class explaining what Earth Hour was and why it was important. For any event to succeed and especially when hoping to create a ripple effect from the pupils it was imperative that Earth Hour was conveyed as a fun activity and that the lesson was fun so that the pupils would feedback to their parents about it. This was achieved by setting the class a task of creating a poster to promote Earth Hour in the village with the added incentive of the winning poster being placed in the village shop.

The children were also engaged in the Earth Hour project when it was explained of the numerous things the children could do during the hour. Using the national curriculum syllabus it became clear that the students had recently been taught about Victorian life. The team used this to explain how



the pupils could live like Victorians for the hour, which not only brought in elements of fun into the hour for the pupils but also aided in furthering their education.

The team then led an assembly to the whole school to raise awareness between all age ranges and then four students were selected from the school council to take part in a workshop which was organised by the team. Through this workshop the children created their own blog about the event and sent this via the internal email system to all staff and students at the school. Information was also sent via newsletter about the event to all parents and the use of the schools twitters feed was also used.

3.4 Tier Three: Mass Media

Once the village were talking about the posters and the younger generation of the village enthused by the event, mass media was employed to gain as much publicity and to give out much more detailed information about the event to everyone in the village. A press release was created (see appendix two) and was sent to the Chester Chronicle and BBC North West tonight to see if a story could be run. Although this did not come to fruition due to larger news events taking precedent, an article written by the team was placed in the Ashton Hayes shout (See appendix three). The shout is a local newspaper/newsletter that is distributed to every house hold in the village. The release date of the Shout was on the morning of the Earth Hour event. This proved beneficial as now everyone in the village had been accessed by the campaign and it would be fresh in their minds.

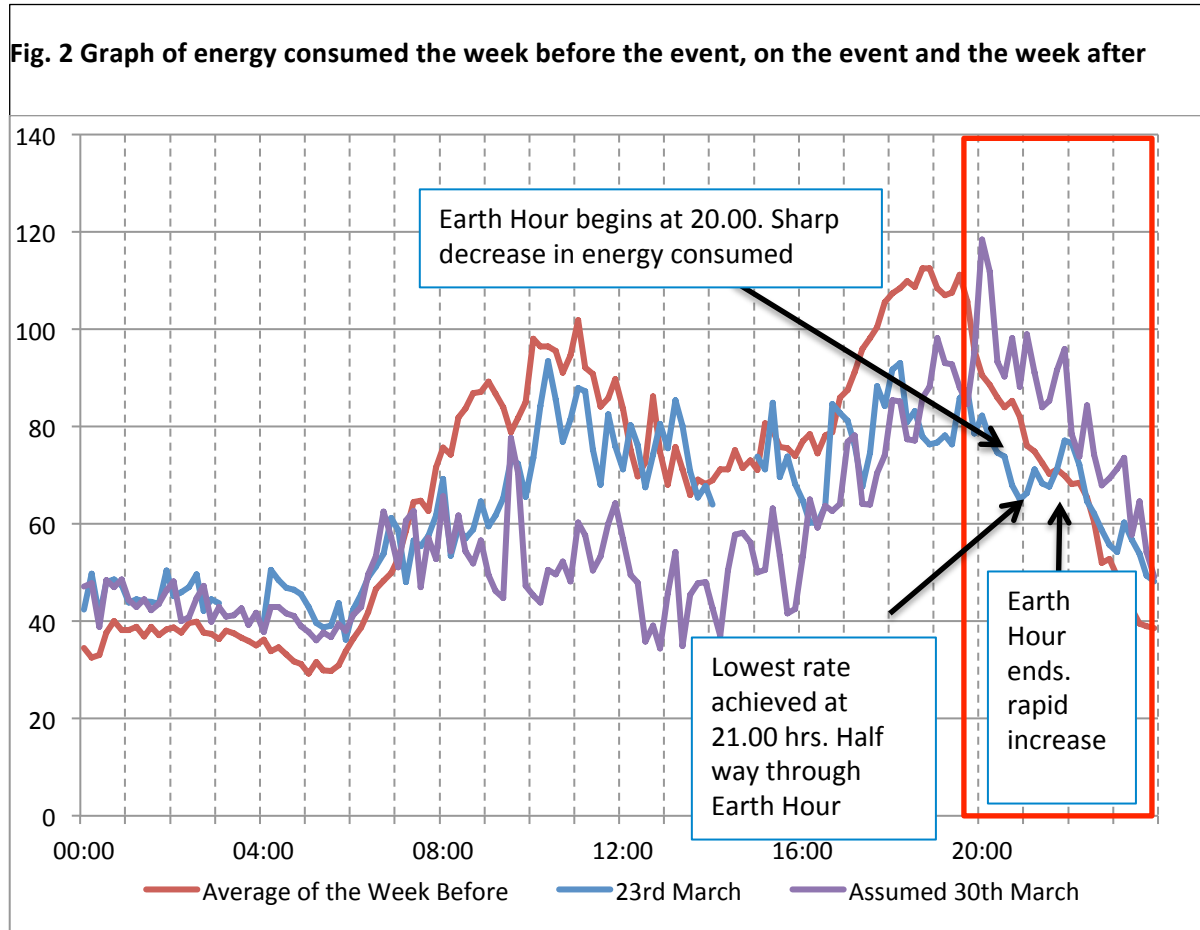
The team also succeeded in getting a retweet from Dee 106 radio station (see appendix 4). A retweet is when a message is sent to all followers of an account. The team succeeded in getting the message out to 7000 people. Twitter is a vital tool for promotion of any event (Erin, 2008).

The information about energy usage was to be monitored by Scottish Power Energy Networks and was fed back to the group in the days following the event. There are four substations in the village and each are monitored down to ten minute intervals in kilowatt hours.



4.0 Results and discussion

4.1 Unfortunately on the 23rd of March, the day of the Earth Hour event two out of the four monitoring systems failed, with the third transmitting information intermittently throughout the day. Therefore no data was recorded for the entire village, however accurate data was still present for one area in the village. See figure two



The line in blue is the most important line for this project. This represents the actual energy usage on the day of the event. It is clear from the graph that the participation and promotion worked as there is a clear reduction in energy consumption for the same hour the previous week. When Earth Hour started at 20.00 hrs there was a considerable reduction in energy consumption rates in the village showing that the residents have turned lights and appliances off due to the acknowledgement of the campaign.

However it is evident that the energy consumption rates did not stay low for the whole hour. After 21.00 hrs the consumption rate fluctuated, it began to rise and then fall. Perhaps this can be attributed to some residents getting the times wrong, or realising that the event was not over and so switched off their appliances again. However after the event had finished at 21.30 hrs there was a rapid increase in energy consumption, much greater than the previous weekend.

Although this was expected, it was hoped that the residents would leave some lights switched off. This may have been the case however if the whole village made a cup of tea at the same time, kettles which are energy intensive far outweigh any potential savings from lights being switched off for more than the hour of Earth Hour.



The above graph does prove that the promotional campaign did indeed work in the village of Ashton Hayes as there is an evident drop in consumption for the hour of Earth Hour. This is reinforced further by the evident spike in consumption rates after 21.30 hrs when the Earth Hour event had ended. This shows that the residents switched all of their lights and appliances back on proving that there was good participation and engagement with the residents from the village.

4.2 Although Earth Hour is all about promoting sustainable thinking and less about measuring the energy saved, from the graph and data collected it has been estimated that the part of the village which was successfully monitored saved approximately **5Kwh** of energy over Earth Hour. **This is equivalent to 80, 60 Watt standard light bulbs being turned off for one hour, a significant saving.** It is to be noted however that as the village is already very sustainable, many households have energy efficient light bulbs installed already. Therefore when Earth Hour came and the village turned off their lights, the reduction in energy is not as great as if a village which all had standard 60W light bulbs turned off. Therefore it is expected that if a similar event in another village which was not sustainably thinking but successfully engaged with Earth Hour, it is expected that a much more evident saving in energy would be observed.

It is important to note the rapid increase of energy after the event. Such a phenenom is not uncommon and was expected by Scottish Power Energy networks to see such an instant demand for energy. Similar demands are often seen at half-time of major sporting events such as the World Cup final when residents all switch on their kettles between the two halves.

4.3 Unfortunately at the date of publication of this report, results of a survey about engagement of earth hour to the students had not yet been returned and so no comment can be made definitively on the level of engagement of the village. The data and the graph however suggest that the promotion and campaign to engage the village in Earth Hour was a success.



5.0 Conclusion & Recommendations

5.1 Overall it would seem that the campaign was a success, with energy consumption rates dropping when Earth Hour began and then raising rapidly after the hour had finished. Although the project was focused on the level of engagement in the village and less about the actual energy saved, it is still important to note that the village will have saved a significant amount of energy over the short time period and most notably if this could be replicated throughout the UK then during Earth Hour it is assumed a great deal of energy and carbon would be saved.

Although the village of Ashton Hayes is already extremely knowledgeable about sustainable thinking, (this was evident in the knowledge of the school children) and therefore this type of project stood a greater chance of succeeding here than anywhere else, it is important to note that if the engagement rates were not successful in this village, then it is highly doubtful that it would work elsewhere.

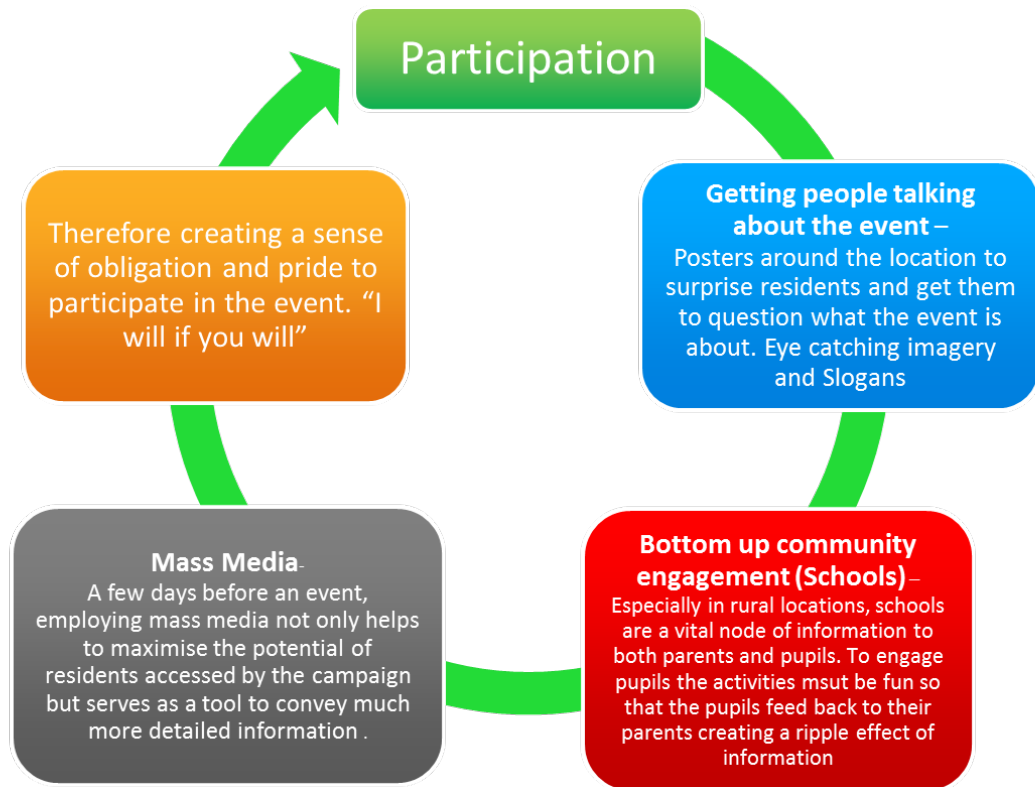
5.2 Recommendations

1. Community engagement is key

this project would not have succeeded if the residents of Ashton Hayes were not engaged or educated about the event. Figure three is a model created by the team to show what steps must be taken to be successful in engaging any local community about any event.



Fig. 3 – JAAJ model of participation



2. Yearly event

many successful events have started off small and have grown in numbers of participation over the years. It is important that this work is continued through to next year and the year after to promote and measure the effect Earth Hour has on the village over time. It is hoped that year upon year more engagement and energy saving can be achieved.

3. How much could you save (£)? Further education needed

Although the younger generation, at least in the school were motivated by protecting the environment it became apparent through conversations with the pupils while working on the class task that their parents are much more motivated by the cost saving benefits of sustainable thinking and that protecting the environment is very much a positive side-effect for them. Therefore to increase future engagement rates perhaps an element of how much a resident could save by switching lights off and taking part in Earth Hour, might appeal to those who are driven by economic benefits of energy saving in the village.

4. Must be fun for both older and younger generations

In order to be successful the project and activities must be fun and engaging so that people join in. Perhaps a larger event could have taken place in the village to raise awareness. In



future years perhaps competitions could be set up and a unique event in the village can be created to raise awareness but be fun at the same time.

5. Further study is needed in different places

Further study must be carried out in the village to assess which method of promotion was most engaging to the residents, especially which type of poster was the more engaging. Further follow up studies must be done to see to what extent people participated in the event and to understand what specific lights or appliances were turned off during the hour and if it was for the full hour or not.

Word Count: 2194



References

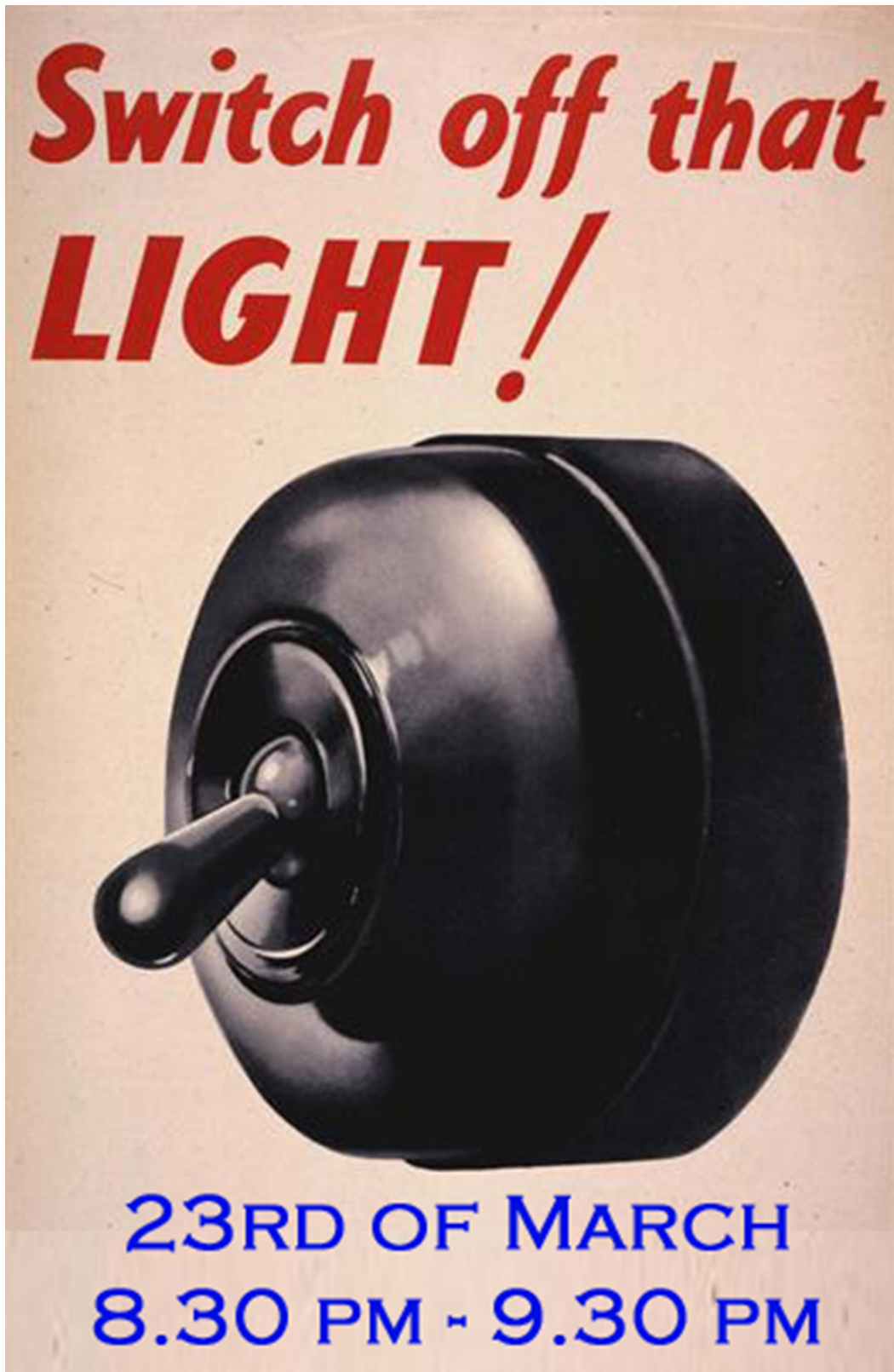
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Appendix one – Posters A. Lord Kitchener Poster



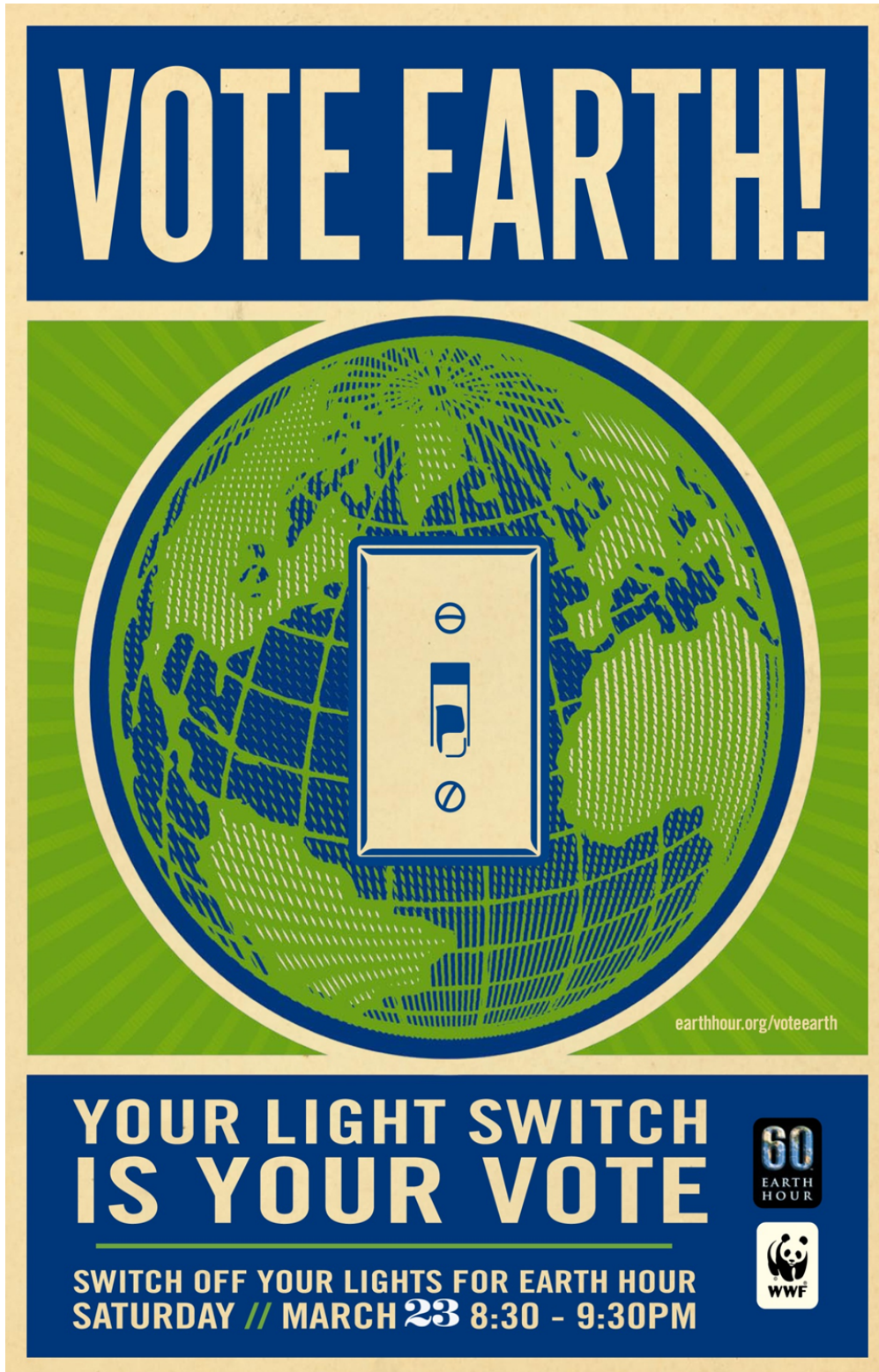


Appendix one – Poster B. Switch off that light! Poster





Appendix one – Poster C. Vote Earth Poster





Appendix one – Poster D. I will if you will Poster





Appendix Two – Press Release

Victorian fun by candlelight in Ashton Hayes

Families in the pioneering village of Ashton Hayes will be recreating a ‘Victorian evening’ by candlelight in support of the global *Earth Hour* event on 23 March. Inspired by Geography students from the University of Chester, residents will be encouraged to switch off all their 21st Century electrical devices and find ways of enjoying themselves in semi darkness.

“We were keen to find a fun way of helping folk understand the energy and carbon emissions that can be saved by switching off lights for just one hour on a Saturday night,” says student Anthony Cliffe. “But the project also has a serious side thanks to the support of by Scottish Power Engineering Networks which is measuring the drop in energy. It’s also a step on the way for Ashton Hayes to achieve its aim of becoming England’s first carbon neutral community.”

Earth Hour is an annual initiative run by the World Wildlife Fund. The aim is to encourage households and businesses around the world to switch off equipment from 8.30 to 9.30 pm on Saturday 23 March and promote sustainable thinking. For the past month, the Chester-based students have been engaging with the public and children in Ashton Hayes to think of ways of measuring their energy savings and suggesting playing parlour games they candle light instead of watching TV or using games consoles.

The student’s teams will also be joining in the switch off and putting down their smart phones – it will be a tough hour for them!

Notes for Editors

The students who are running the project are available for photo opportunities and interviews about the Earth Hour project and can be contacted via

Email: 1007723@chester.ac.uk

Mobile: 07833430677



Appendix Three – Ashton Hayes Shout Article

EARTH HOUR IN ASHTON HAYES

A team of four final year Geography students at the University of Chester are currently conducting a pioneering project in the village and they need your help!

On Saturday the 23rd of March at 8.30 pm till 9.30 pm communities, councils and businesses all over the world will be switching off their lights for Earth Hour. Earth Hour is a global initiative run by the World Wildlife Fund to raise awareness of sustainable issues and so help save carbon emissions.

They students however have unique access to energy consumption rates in the village and will be studying the amount of carbon actual saved during Earth Hour in the village. They however want you to turn off more than just your lights if you can.

The students have been working with year 5 and year 6 pupils at Ashton Primary to raise awareness of Earth Hour and help them create posters which can be seen around the village, with the winners of the poster creation can be found in the village shop. The students have also been working with the children of the school to give them ideas on what to do during the hour away from TV's and computers! Such as:

- ❖ Telling Stories
- ❖ Card games
- ❖ Board Games
- ❖ Parlour Games
- ❖ Star Gazing

The children will experience all this by candle light just like Victorian children would have done hundreds of years ago.

Although the project has many energy and policy benefits, thanks to the support by Scottish Power Engineering Networks which is supplying the measuring the drop in energy data. It is also a step on the way for Ashton Hayes to achieve its aim of becoming England's first carbon neutral community. There are many social aspects of the project to, such as quality family time away from computers and technology. So join in, get together, and switch the electricity off for one hour and save some money!

A follow up of how much has been saved will be made available in a future issue.

From all of the Team we hope you will take part. We appreciate it!

08.30-9.30pm
March 23rd

By Anthony Cliffe



Appendix Four – Picture of the retweet from Dee 106 radio

