Have you met Albert yet?

On top of a busy career as director of *The Graham Norton Show* and many other TV favourites, current Chair of Directors UK, **Steve Smith**, also finds time to campaign passionately around an issue to which he feels we should all be paying more attention: how to cut energy use, waste and pollution on productions. There are many great initiatives and resources available through BAFTA's albert Consortium.

Living in a time of climate change

What a year – and I'm not even talking about the state of the Brexit negotiations or Donald Trump! As Storm Caroline batters Scotland at the time of writing, we can look back on a year of devastating extreme weather events vividly demonstrating that we are living in a time of climate change. We've witnessed extraordinary weather, including temperatures topping 50°C in Asia, record-breaking hurricanes in rapid succession in the Caribbean and Atlantic, with one reaching as far as Ireland, devastating monsoon flooding, affecting many millions of people, and a relentless drought in East Africa.

Every year is now a contender for the warmest year on record. The current record holder – 2016 – broke all previous records for our warming planet, with 2017 now announced as the second hottest year, confirming this warming trend that scientists say is caused by human actions.

It's a worrying shift and we know there's more to come, as increased global temperatures often lag behind increases in global atmospheric CO_2 levels. The bad news is that this year CO_2 levels hit a record high (403.3 ppm) and increased at a record speed in 2016 to hit a level not seen for more than three million years. In response, the United Nations called for nations to consider more drastic emissions reductions to meet climate targets set in the Paris Agreement.

So what's all this got to do with us working in the film and television industry? We don't tend to think about TV and film production in relation to its impact on the planet, yet, we work in a carbon-intensive industry. You only need to look at the long list of names on a typical call-sheet to understand why the industry is so carbon hungry. We employ vast numbers of cast and crew, and deploy tonnes of equipment, all of which need to be transported, housed, powered and fed. Then, once the production is over, there's the question of what to do with the sets and props that are no longer required. Producing just one hour of original television content creates approximately 13.6 tonnes of carbon emissions – equivalent to heating and lighting three average homes for a whole year.

The important roles of TV and cinema

Our industry has two very important tasks. First, like any business or company, we have to become greener, more environmentally friendly and sustainable in the way we make our programmes. This brings enormous benefits including financial savings as well as ensuring that we comply with the Paris Climate Agreement and any other climate legislation. Second, and perhaps more importantly, the broadcast industry has a unique role to play in the huge societal shift needed to enable audiences to understand, participate in and influence the outcomes from climate change, which, left unaddressed, will have a monumental impact on humanity. We need to help normalise sustainable living on screen and to communicate stories about climate change to the audiences we serve.

Five years ago I became an 'albert ambassador' to help raise awareness of environmental issues in the industry and to champion new ways of working. The BAFTA albert Consortium supports the UK production and broadcast industry's transition to environmental sustainability, working to accelerate the adoption of best practice. With over 2000 users from 300 companies signed up to use albert tools, there are many organisations and individuals who help to steer the sustainability agenda for the UK screen arts. The project aims for all UK screen content to be made in a way that benefits individuals, industry organisations and the planet. The Consortium also provides training programmes and promotes sustainable production techniques, freely providing the tools, guidance and direction needed to reduce the impact of moving image media production on the environment.

albert carbon calculator

These tools include the albert carbon calculator, now mandatory for many UK broadcasters. This requires production companies to keep track of their carbon footprint during production or to risk not being paid by the broadcaster. The calculator allows our industry to take stock and to analyse how we can further reduce our emissions over time. For productions wanting to go one step further – which I always encourage – the Consortium offers certification, which includes an on-screen Kitemark for productions that actively reduce their energy consumption and carbon footprint.

So, the way we work in our industry is changing. Perhaps you already embrace albert and are part of that change. Hopefully you will be aware of the calculator and might have been asked to help a production with its sustainability goals. Actions many productions now take include using recyclable materials for building sets, like wood from sustainable forests and recycled aluminium and steel, and trying to reduce the use of paper (*see pages 66–69*). When it comes to location catering, using compostable plates and cups, and issuing cast and crew with reusable water bottles avoids the waste of thousands of plastic bottles each year.

Set and costume design are areas of huge potential waste in film and TV, with estimates suggesting a blockbuster movie can generate up to 1000 tonnes of waste from set construction alone. In response to this, a growing number of innovative companies are springing up, dedicated to making sure this aspect of filmmaking is as environmentally friendly as possible. Suppliers like Scenery Salvage and Dresd repurpose and reuse sets and costumes whenever possible and, where this isn't possible, ensure they are recycled or sold on.

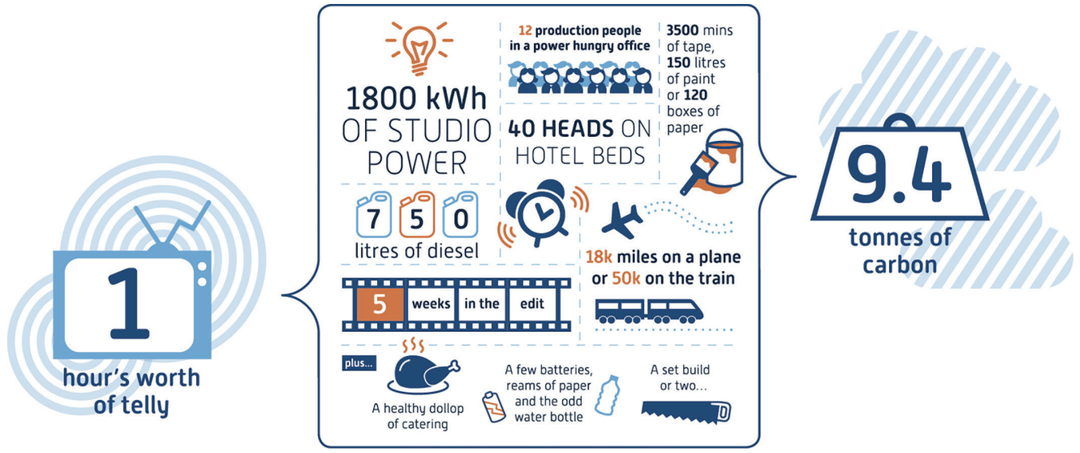
Cost saving benefits

Even if you're the most ardent climate sceptic, saving carbon usually saves you money, so it makes sense to do so, freeing up more cash to be spent on screen. The greatest consumption on any film set or TV studio is electricity, accounting for about 60% of the typical carbon footprint. One of the albert Consortium's biggest achievements last year was to negotiate a special green energy-buying scheme called Creative Energy in conjunction with Good Energy, which allows anyone who works in the industry to buy 100% renewable energy at a highly competitive price. When I encouraged Directors UK to switch one of our suppliers to Creative Energy earlier in the year we reduced our carbon footprint whilst also reducing our electricity bill and saving our members money. It was a win–win, so if you want to get greener but are not sure what you can do, switching to renewables, both at home and work, is an easy way to eliminate emissions and cut your carbon footprint. There is no excuse not to act.

Related to this is the importance of lighting in film and TV productions. There are huge advances now in LED lighting, which is 90% more efficient. What's more, it doesn't generate as much heat, which means less air-conditioning is required on set or in the studio, making for a more comfortable working environment, particularly for a cast in heavy period-drama costumes. Using low-carbon location power generation and LED lighting can save you money and foster a better filming environment. For example, on the final series of *Downton Abbey*, the team slashed their carbon footprint compared to previous series. This was done through transport planning, generator management, production vehicle choices and, crucially (and innovatively for a period drama), a substantial amount of low energy lighting.

Methanol fuel cell – a carbon emission free form of power in a Peli case, used by *Spring*, *Winter* and *Autumnwatch* to charge remote 'nest' and timelapse cameras. Previously, car batteries were used for this, which drained power quickly and had to be replaced daily. This often involved someone driving to the filming location and a daily visit would disturb the animals. Now, the fuel cell can be left in place for around 10 days, charging the camera. So, less travel = reduced carbon emissions and less site disturbance = better filming results.

A flexible solar photovoltaic (PV) panel being used to power an outboard motor in Brazil's Amazon rainforest while filming for *Planet Earth II*. The PV-powered electric outboard was quieter than the usual petrol outboard, so good for filming river dolphins in the flooded forest. Flexible solar PV panels like this, which are light and easily portable, have also been used on other BBC Natural History Unit productions such as *Snow Wolf Family and Me*, which filmed in Arctic Canada with 24-hour daylight. The BBC NHU also made a short film for *The One Show* about the sun, using only power generated from solar PV sources.



If you want to learn more about sustainability for our industry, the BAFTA albert Consortium runs a free, national, one-day training scheme offering Carbon Literacy Training. It's a non-political, optimistic, science-based response to climate change – equipping you with the skills and tools to make your next production as green as possible. So far, we've trained over 1000 people in the independent production sector and a similar number in-house at the BBC.

Good practice case studies

If you don't have time to go on the course, you might want to check out the albert website (wearealbert.org), which offers a wealth of information and inspiration to help you on your road to environmental sustainability. You will find dozens of case studies showing how productions have already cut carbon and saved money, including how *Casualty* saved 79 tonnes of CO_2 using low energy lighting, *Stargazing Live* used waste bio-diesel to power their OB generator, and the drama *The Interceptor* made £7,900 of fuel savings using a fleet of five electric vehicles.

One of my favourite examples of taking advantage of new, changing technology is the way in which a BBC Natural History Unit production team used solar panels to power their production when filming wolves in the remotest of locations in the Arctic. Using solar panels in a place where the sun never sets seemed the obvious way to avoid the use of traditional petrol motors and to reduce the consumption of fossil fuels, cutting carbon emissions and reducing both air and noise pollution. Another big advantage of using solar power for wildlife filming is that, unlike a generator, this is silent energy, so it doesn't disturb the animals you're trying to film.

Every little helps

There are countless other examples of simple, practical things we can all do. As a society, in climate change, we could not design a problem that is worse for our underlying psychology. It's an incredibly complex problem and often makes us feel this is too big a problem for us as individuals to tackle. The truth is though, we can all make small changes and together these add up to make an enormous difference. We can choose to be depressed by the enormity of the situation – which is extremely serious – or do what I do and embrace this new world and work towards a low-carbon society. Instead of remaining trapped in the frustrations of the present, with creativity and innovation we really can rethink and redesign our future with all the positive benefits that will follow.

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As Morgan Freeman says in a short film shown at the Paris Climate Conference: "We can make today the day we stop thinking the changes required are impossible and beyond us and start realising they are not only possible but what the future requires from us."

Fact File

Steve Smith is a freelance director (*The Graham Norton Show*), Chair of Directors UK and works as an albert ambassador helping to promote sustainability within the UK television industry. See more about Steve's work: www.steve-smith.tv

For more information, to sign up to Creative Energy, or enrol for free Carbon Literacy Training, please visit: wearealbert.org

albert+ sustainable production