Keeping 2019's 'Green Rose' resolutions

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Making New Year resolutions is one thing. Keeping them is another! There are at least three good business and environmental reasons for making low carbon and waste reduction promises as the new free 'Green Rose' scheme is launched at the start of the UK's 2019 Year of Green Action.

While pedalling furiously in the gym!

Battling to lose those extra Christmas pounds or kilograms is important. Good luck! However, cutting climate changing carbon emissions, and learning how to minimise unsustainable and expensive landfill waste from January to December 2019, is, sorry to say, at least equally and arguably even more important. However, help is at hand. All that is needed is commitment, plus the free input that hundreds of local companies are entitled to from the Chamber Low Carbon Programme.

2019 priorities

Why are we starting so early in January? As recent fast-changing news events show, there is a great deal to do and 12 months go by very quickly on the business calendar. The average level of CO_2 in the atmosphere at circa 405.0 parts per million (*ppm*) is now the highest for at least 800,000 years (https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide). The Met Office adds that record-breaking UK summer heat in 2018 was made some 30 times more likely by emissions from human activity (https://www.metoffice.gov.uk/news/releases/2018/2018-uk-summer-heatwave).

In parallel, events did not go according to plan at the UN's COP24 climate change summit in Poland from December 3th to 14th. As strong fossil-fuel advocates, the US, Russia, Saudi Arabia and Kuwait refused to "welcome" a high-level report (https://www.ipcc.ch/sr15/) warning that the world is way off course in meeting a critical maximum warming level of 1.5^0C this century. Nations now need to cut carbon dioxide emissions by a dramatic 45% by 2030. Failing to tackle climate change would be "not only immoral but suicidal" for the planet, UN secretary-general Antonio Guterres warned as he tried to push COP24 to a successful conclusion.

But there is good news too. As will be mentioned later, the Engineering and Physical Sciences Research Council (EPSRC) reports that UK and Chinese researchers are working closely on projects to cut worldwide CO_2 production, ensure energy affordability and security for each country and build lasting best-with-best academic relationships between China and the UK in an area vital to both countries (https://epsrc.ukri.org/newsevents/news/ukchinalowcarbonmanufacturing/).

Three resolutions

Most companies have the potential to make major savings by cutting back their energy use, turning to commercially-viable near-zero-carbon renewable energy sources (solar and wind), taking a fresh look at waste, rationalising production and/or manufacturing and service systems, optimising transport needs and working closely with employees to track down and systematically eliminate process inefficiencies.

The Chamber Low Carbon programme has condensed these goals down into three easy-to-implement schemes for 2019: –

Green Rose – one day a month for six months

The Green Rose programme is being launched early in the New Year. It is designed to help businesses working towards accreditation to the international environmental management standard, ISO 14001, or British Standard BS 8555 : 2016.

The aim is to create a documented journey of **continuous environmental and energy management improvement** that can be audited by external adjudicators to very high standards. However, we know that many companies often need to be able to show their clients and supply chain leaders that they are making significant advances before actually being ready to achieve **certification**.

This is where Green Rose can help. Not only does it take companies through all stages of preparation over a six-month period, it will also be a Lancashire recognised marque of progress towards certification.

– How will the Green Rose journey work?

The aim is to teach company environmental champions and managers and their support teams how to look for and **quantify risks** that can range from wasting greenhouse gas emitting energy to polluting local watercourses, contributing to poor

air quality, operating inefficient lighting and many more so-called "**aspects**" that "**impact**" on the environment. These are then listed in a company Significant **Aspects Register**.

The next step is to identify and take **mitigating measure** whereby businesses are allowed and expected to prioritise which aspects they want to tackle first and how they plan to do this. It is also important to be aware of and able to comply with **relevant regulations and legislation**. The key aim is to show **continuous improvement year-by-year**.

A crucial phase in the journey is periodic **high-level review** by senior company executives who must be committed to the process. That leads to a further **reiteration** of the whole cycle and the next round of **continuous improvement** that certification assessors will look for each year.

– What will Green Rose give you?

Crucial to whole process is competent **documentation** and Green Rose provides a **comprehensive set of example system and operational procedures** that environmental champions and managers can customise to their own organisations.

You will be entitled to a FREE **Energy and Environmental Audit** and **Action Plan**. A grant aid system is also being put into place to facilitate energy and resource efficiency measures identified within the action plan.

As an important joined-up footnote, the **International Standards Organisation (ISO)** has now aligned its product and management standards with the **United Nations Sustainable Development Goals (SDGs).** This is another area of activity that the Chamber will be progressing through its Energy & Environment Forum to be launched later in the year.

Welcome to the circular economy

The UK has dragged its feet in meeting the binding European commitment for local authorities to raise their current 40% to 45% recycling rates for residential municipal waste to a much more ambitious 65% by 2035. Greenpeace suggests that this would save almost £10 billion over a decade in waste sector, greenhouse gas and social costs. Understanding and joining the circular economy will be a key step that is also important in cutting greenhouse gas emissions.

The indications are that the Government will introduce higher targets early in 2019. In addition, it could for the first time impose a minimum 65% recycling requirement on business municipal waste which would come into effect in the next few years.

The National Infrastructure Assessment (NIA) wants to go further with separate food waste collection for households and businesses by 2025 to help provide a low-carbon future. However, all this means businesses starting to plan now.

– **Join the Lancashire Circular Economy Club**

The Low Carbon Programme is organising a Lancashire Circular Economy Club as part of the wider international movement (https://www.circulareconomyclub.com/)

Currently, the average UK household produces more than a tonne of waste every year. This totals some 31 million tonnes annually, which is more or less equivalent to the weight of three and a half million double-decker buses that together would go around the world two and a half times if parked end-to-end. That's a humungous figure that can be tackled nationally on a local level.

– What is the Circular Economy and why is it important to reducing emissions?

The **Circular Economy** provides an alternative to the traditional linear economy of extract, process, use and dump. Instead, it aims to extract the maximum value of all resources – including waste streams. In effect, one household or companies waste (poison) is another's feedstock (meat).

The Low Carbon Programme holds regular seminar meetings that examine the waste problem, compare the linear versus the circular economy, explain why **waste is really a valuable resource**, and, most importantly show how you can make a **practical transition to a more circular economy**.

Crucially, a **different business model** is needed and this is a cornerstone focus of the programme.

More events will be held in 2019 and everyone is welcome. The Chamber Low Carbon team will be on hand to discuss the **support and funding available** through the Low Carbon programme. To keep up-to-date with further **Lunch & Learn workshops**, please subscribe to the Chamber Low Carbon **newsletter** (https://t.co/58G5mZSVLn).

– In technical terms

The circular economy concept is a **regenerative system**. The idea is to methodically close down all leakages of material resources, waste, emissions and energy, and instead of losing them employ them again through **repair, reuse, remanufacturing, refurbishing and recycling**. Usually, materials are downgraded each time they go through one of these phases. However, the idea of **upcycling**, or beneficiation, achieves the reverse and produces a higher value product.

The major advantages in a sustainable world are minimum economic or environmental losses that do not unduly affect quality of life. In fact, **profitability can be as high as for linear models** but with important carbon gains.

– 2019 Year of Green Action

This national initiative, as part of Defra's 25-Year Environment Plan, was unveiled in January 2018 (https://www.gov.uk/government/publications/25-year-environment-plan/25-year-environment-plan-our-targets-at-a-glance) to **improve the UK's air and water quality and protect threatened plants, trees and wildlife species**. It is also

the key driver behind Green Rose and a major avenue for the Chamber Low Carbon Programme to engage with businesses, obtain baseline carbon footprints and trigger climate and resource action.

As 2019 unfolds, many new local events and participation opportunities will be announced.

China and UK R&D

Four UK/China low-carbon research projects will start in January 2019 with £3.2 million EPSRC funding and ¥12 million from the National Natural Science Foundation of China (NSFC).

University of Manchester academics will work with Huazhong University of Science and Technology colleagues on a new low-carbon laser-based manufacturing process. The University of Manchester will also cooperate with Shenzhen University on a project concentrating on carbon fibre composite recycling. The University of Bradford will similarly partner with Sichuan University to explore polymer recycling, while Queen Mary University of London will work with the Institute of Physics, Chinese Academy of Sciences. to create materials for solar cells and batteries from waste.

Happy New Year!