

## Dealing With Climate Grief - Clean Energy

We know that the Industrial Revolution and the burning of fossil fuels led to huge increases in the level of carbon dioxide in the atmosphere. And there is no doubt amongst reputable Climate Scientists that this is leading to catastrophic climate change.

This is not to dismiss all the positive things that the industrial revolution has led to in the way of higher standards of living, better health, transport etc. Admittedly we in the Western world have benefited disproportionately compared with many less developed countries but arguably most people in the world have a better quality of life than earlier generations.

Yet the negative impacts of climate change are likely to be felt disproportionately by those who have benefited least from the burning of fossil fuels and who have contributed least to the carbon burden in our atmosphere. Which seems hardly fair!

We have now reached the point where we cannot keep putting carbon dioxide into the atmosphere. Indeed, we need to find ways of removing more from the atmosphere. If we are to maintain at least some of our ways of modern living we must use sources of energy that do not release carbon dioxide. We also need to find ways of using less energy.

Essentially energy from both solar and wind comes from the sun. The same source of energy that has been powering our planet for billions of years by plants capturing the solar energy and storing it by combining it with Carbon, Hydrogen and Oxygen.

It will take time to develop economies that do not depend on burning fossil fuels but we have less than a decade to make the switch from fossil fuels to clean energy if we are to forestall the continuing catastrophic effects of climate change. We need to reduce our use of energy and use it more efficiently and waste less. We also need to address the barriers to this transition to clean energy.

### **What are the current barriers to being able to do this?**

#### **1. *Practical alternatives.***

We already know most of the ways of doing this. Clean and renewable energy from solar, wind and wave energy are already being utilised. Solar and wind power have developed at a speed and scale that we did not believe possible a few years ago. Intelligent grids are being designed that will make better use of the electricity that is being produced. New and innovative ways of storing the energy are being designed and developed. These include making use of the storage capacity of the batteries of electric cars while not being used. This is already happening and will be scaled up in the years to come. However we still need to make much progress on battery storage. There is still scope to make renewables more efficient.

#### **2. *Bridging the gap.***

We will probably need some temporary fixes which are far from ideal in order to address current short-comings. These will probably include large-scale hydropower schemes, prolonged use of natural gas (which produces fewer carbon emissions than coal or oil) and perhaps the most controversial, nuclear power. All of these have huge down-sides as does the use of agricultural land to produce bioenergy. So we need to make sure that these temporary fixes are as short term as possible.

#### **3. *Affordability.***

There has been a 90% drop in the cost of solar panels in the last decade. On-shore and off-shore wind generation is heading the same way. Renewable energy per kilowatt is now cheaper than coal, hydro-power and nuclear. It is approaching the costs of coal and oil.

Also, the ongoing running costs of renewable is much lower than other energy sources. Over 30 years a renewable energy sector would save trillions of dollars in operational costs.

#### **4. Vested Interests.**

Given that the previous barriers can be addressed, the most formidable obstacle that we face is the opposition to change. Six of the ten largest companies in the world are oil and gas companies, three of which are state owned. Almost every large company and state is currently reliant on fossil fuels. Most large banks and pension funds are heavily invested in fossil fuels. Fossil fuel companies are deliberately slowing down the transition to clean energy through lobbying to water down new regulations to move to low carbon economies. They are often also deliberately spreading misinformation. Governments are still subsidising fossil fuels by giving massive hand-outs to fossil fuel companies. Globally, governments are spending \$600 billion every year to keep the prices of fossil fuels artificially low. This is 3 times the subsidies for renewable energy.

**Should we despair and give up?** No. Things can change. Some countries (Iceland, Albania and Paraguay) already generate all their electricity without fossil fuels. There are other countries who are already generating over 90% of their energy from renewable sources. The development of autonomous cars is likely to lead urban dwellers to abandon personal car ownership. Countries in North Africa such as Morocco could start exporting solar generated electricity to southern Europe. And of course, rewilding our land and the sea will allow nature to remove large quantities of carbon from the atmosphere.

#### **What can we do to help?**

##### **1. Changes to your life-style habits.**

Use public transport, walk and cycle when possible and use your car less.

Use low energy light-bulbs and ensure that your home is as well insulated as possible.

Maybe set your thermostats a degree or two lower?

##### **2. Use your consumer power.**

Change your energy supplier to one that uses 100% renewable energy and invests in renewable. Not the best time to suggest this as we are all faced with increased energy bills but worth doing as soon as you are able.

##### **3. Educate yourself.**

Research energy saving tips such as how to prevent heat loss in your house. See <https://cheeseproject.co.uk> and the message in this newsletter about Energy Tracers coming to Worcestershire and the opportunity for you to become involved.

Also how to cook using less energy. Listen to this interesting item on Radio 4 "You and Yours" about 20 minutes from the start. <https://www.bbc.co.uk/sounds/play/m0014gn1>

##### **4. Lobby and Protest.**

Ask your pension provider to divest from fossil fuel investments. This move away from "stranded assets" makes good financial sense as financial analysts predict huge drops in the value of such investments. Call on your MP to question our Government about continued subsidies for fossil fuels and reductions in support for development of renewables. Ask him why some people are resorting to glue themselves to the M25 to try and force the government to undertake the most common sense, cost effective and benign measure, that of providing proper subsidies for home insulation. Call on your District Councillors to ensure that any new housing development exceeds the insulation and energy performance standards required by building regulations and that developers fit solar panels and air-source heat pumps as standard to all new houses. Ask your County Councillor what she/he is doing to ensure that the County Council is setting and meeting targets for renewable energy to achieve carbon zero by 2035.

*John Rhymer - March 2022 - WFGA*