



TREES  
WON'T SAVE US,  
SEQUESTRATION  
WILL

BLACKGREEN

# BLACKGREEN

BlackGreen is a unit of The Horseferry Foundation, registered under the UK Charity Act and supervised by the UK Charities Commission.

BlackGreen looks at environmental problems as opportunities, seeking to support solutions that restore balance and vitality to the planet. However, we live in the real world and accept that environmental problems come as by-products of the real needs of human beings. So, where that vital need cannot be solved with novel technology, we say that it's through participation with the producers and consumers that we can come to practical and funded solutions.

The first problem is carbon dioxide in the atmosphere - without a solution to this problem addressing other problems may prove futile. In addition to reducing reliance on fossil fuels and transitioning to a lower-carbon economy on absolute terms, we recognize the need to promote the permanent disposal of carbon dioxide to clean the air. We are also interested in restoring soils, promoting biodiversity, clean water, and other environmental improvements, but for these solutions to have a chance we must start by bringing balance to the carbon equation. Let's start together here.

We recommend the Carbon Takeback Obligation, a policy first described by Professor Myles Allen of the Environmental Change Institute at the University of Oxford. Our task is to provide a platform for Professor Myles Allen and his colleagues to explain the Carbon Takeback Obligation and kickstart the process. He and his team advise at senior levels in the UK, both to government and business. They see great prospects in Asia.

Beyond this work of advocacy, we are involved in the promotion of individual projects that must become real businesses if they are going to reduce carbon dioxide in the atmosphere. We are helped in this pursuit directly by Professors at Oxford University, Imperial College London and UCLA, California. We would like to share a sample of the projects at different stages of development with you today and we hope you find them interesting and persuasive.

# BLACKGREEN

## CarbonBuilt

As we've heard many times, "concrete can be beautiful". Not only beautiful but strong, flexible, cheap, and fit for purpose, which means, to date, it's irreplaceable! It's the quintessential substance that brought shelter and prosperity to the people pouring into the great cities of Asia during these long years of rapid economic development. That development will continue for the coming generations who will come to live a more prosperous life than their parents in the urban environment throughout Asia and elsewhere in the developing world.

But there's a problem with concrete. Fully 8% of the vast choking outpouring of carbon dioxide into our atmosphere comes from concrete. This problem is not going away, and that realisation is the point where CarbonBuilt starts its proposition. Concrete needs a new cement! CarbonBuilt's solution is to utilise and embed carbon dioxide in the concrete during the industrial process of manufacture. CarbonBuilt has branded this process "Reversa" and it will be available for new plants as well as conversions to old facilities.

There are three takeaways. Firstly, there is more than a 50% reduction in carbon dioxide emissions. Secondly, there is no compromise in the performance of the concrete. Thirdly, the CarbonBuilt solution increases profitability for concrete producers.

This company really meets the criteria for the BlackGreen charity. Our criteria is as follows "where there is no novel technology in prospect the projected change accepts reality and does the best to improve the Carbon Balance by engaging with the polluter". We are not the only people who believe the great merit of CarbonBuilt. The company has just been announced as one of the two grand-prize winners of the XPRIZE award for 2021 collecting a substantial monetary award.

If you want to find out more about CarbonBuilt please contact BlackGreen at [info@horseferry-charity.org](mailto:info@horseferry-charity.org) - this project is ready for market so if you like what you see soon you may have the chance to invest in your own name or for our charity as CarbonBuilt will shortly arrange a series A investment round.

# BLACKGREEN

## Amender

You have probably read that the oceans are one of the great repositories of carbon dioxide. You may also have heard that the level of dissolved carbon dioxide in the sea is rising, and that gas is coming from the extra man-made CO<sub>2</sub> in the atmosphere. That dynamic relationship between seawater and air is where the science behind Amender gets its inspiration. We know that too much Carbon Dioxide has been pumped into the atmosphere and that great efforts are being made to capture that CO<sub>2</sub> directly from the air. Vast machines are being built to suck CO<sub>2</sub> from the air. But seawater contains 150 times more CO<sub>2</sub> by unit volume than air. So, if you can clean and decarbonise the seawater then Mother Nature will extract that Carbon Dioxide from the air. Amender takes a bad process and makes it into a good one.

Amender has designed, built, and tested an engineering process which uses renewable energy to extract the CO<sub>2</sub> from seawater leaving the carbon locked away permanently in solid chalk-like deposits of calcium carbonate.

The good news is the other by-product hydrogen - in the trade we call this Green Hydrogen and it can be bottled and used in light industry, in homes and, in the end, for firing up your garden barbecue! The main income stream for the project is permanently sequestered carbon credits - this is not ordinary temporary carbon offset; this is not trees which will release CO<sub>2</sub> after felling in years to come, this is carbon dioxide permanently removed from the atmosphere and turned into rock! It's never coming back.

Scaled up Amender believes it can produce CO<sub>2</sub> offsets at a 75% discount relative to the prices currently being paid for direct air capture. Plans are in place for a full-scale pilot plant to be built, and private investment will be required alongside the millions of dollars of grant money already posted.

If you want to find out more please contact BlackGreen at [info@horseferry-charity.org](mailto:info@horseferry-charity.org) - this project is at an earlier stage but as above if you like what you see soon you may have the chance to invest in your own name or for our charity as Amender will soon organise an investment round. There is another way you can participate and that's as an underwriter of real permanent carbon offsets that balance your personal or corporate CO<sub>2</sub> lifestyle diet, be it in private jets, cars or yachts. We are working on a carbon redemption package.

# BLACKGREEN

## **DecarboniseMe**

The last team we are working with picks up on this point about understanding your Carbon liability. Around the world every effort is starting to be made to create novel solutions or, as with Black Green's focus, to challenge polluters to change their ways. However, often we do not understand our own carbon footprint and opportunity profile.

For starters, many people would just like to know how much CO2 they are creating living their everyday lives and running their businesses. They feel that once they know how much damage they are causing; they will be in a better place to take advice about how to change their ways to improve matters. Then, once they know the score, they feel empowered to buy an appropriate offsets or investing in mainstream Green company or take shares in a company directly to change the carbon balance.

DecarboniseMe focuses on this discipline of producing a carbon liability audit for companies and wealthy individuals. The product is a carbon liability schedule that can be used to gauge potential future legal risks and to create pathways to carbon net zero. Part of the analysis identifies mitigation strategies and looks at ways in which a company's assets can be transformed from carbon sources to carbon sinks. If you are interested in discovering if this service is appropriate to your business or even for yourself, please contact BlackGreen at [info@horseferry-charity.org](mailto:info@horseferry-charity.org)

## **End Piece**

We at BlackGreen would like to not only applaud HSBC for holding this event but thank them for allowing us to take part. They are not responsible for any of the words in this paper but we know they share our concerns for the future and they seek like we do above all practical ways in which people can be brought together to work and invest for world less endangered by carbon dioxide poisoning.



DECARBONISE  
EARTH NOW,  
SAVE EARTH  
FOREVER

BLACKGREEN