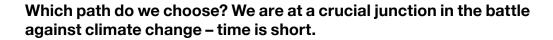
REWIND SERIES EPISODE FOUR,

OUR FUTURE.



Shifting weather conditions are already having an impact around the world, and if we continue to consume and waste at the same rate we are now, catastrophic effects will be unavoidable.

It is vital we take a realistic look at the effects of the materials we use—the impact they make through greenhouse gas emissions during production, use and disposal. This is no time for 'greenwashing'. It is time to look at the evidence and make the best possible use of the best materials we have, to reduce our reliance on the transitory and on the damaging manufacture of alternatives.

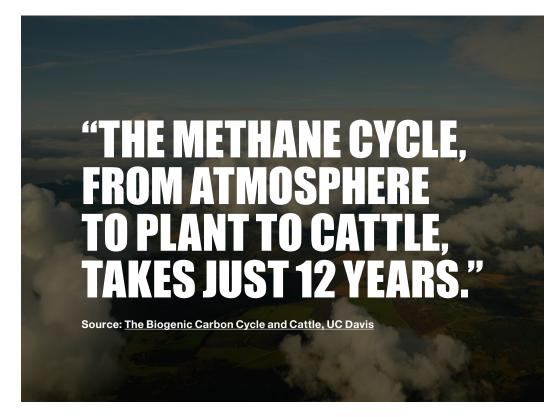
As oil companies move their businesses away from fossil-based fuels and power generation, they move towards the production of petrochemicals to make plastics, synthetic materials, and fertilisers. And that is dangerous. Research suggests that one tonne of plastic produces at least five tonnes of CO^2 , at least three times the CO^2 produced by a tonne of oil. A reduction in the number of cattle would also see an increase in the production of oil-derived fertilisers to replace the 50% of the world's fertiliser that is still naturally produced by livestock.

Cowhides produce CO² emissions when they are incinerated or landfilled. The materials that are produced in their place are harmful at every stage of their lives—from the CO² emissions they cause during their creation and the microplastics they shed during use, to the pollution they cause when they are disposed of. No plastic ever produced has yet biodegraded and only an estimated 9% is recycled. Despite having a shorter useful life than leather, plastic takes around 500 years to biodegrade. Leather takes 50.

Leather is part of the answer to the linked dangers of over-consumption and waste. Using it not only prevents the waste of cowhides, it reduces the need for plastics. Cattle can also be part of the answer to climate change, regenerative farming prevents the production of manmade fertilisers and encourages carbon capture from soil and vegetation. And technology can be part of the solution as we look to the future—beyond simply not adding to GHGs, methane capture can actively reduce the amount of them in the atmosphere.

THE TRUTH ABOUT METHANE





"Lower cattle emissions doesn't just mean less CO², it actually reduces the total CO² in the atmosphere." **Source: The Biogenic Carbon Cycle and Cattle, UC Davis**

"Methane's environmental effects only last 12 years. CO² stays in the atmosphere for centuries." Source: <u>University of Oxford, Environmental Change Institute</u>

"Constant cattle numbers mean a constant amount of methane in the atmosphere."

Source: Clear Center, University of California, Davis

Because methane behaves very differently to CO², its effects on the atmosphere are very different. CO² stays in the atmosphere for up to 1000 years, so any man-made emissions—from the industrial revolution onwards—still contribute to global warming. Methane remains for 12 years, so if emissions remain constant, their effects remain constant. If methane emissions are reduced, the overall effect of methane is reduced.

"The oil and gas sector is the largest human cause of methane emissions in the US." Source: The Climate and Clean Air Coalition

Despite the reputation of the beef and dairy industries, much more methane is emitted by the production of fossil fuels. Natural sources are by far the biggest emitters, with the world's wetlands producing 75% of all methane as changing environments release stored gases.

FIGHTING WASTE, FIGHTING CLIMATE CHANGE



"The amount of waste generated globally is expected to grow by more than a third, to 3 billion tonnes, by 2050"

Source: The World Bank

Cutting waste is a vital part of the fight against climate change. Emissions from landfill are a major source of greenhouse gasses. Using things for longer stops the need to produce more.

"Hides weigh on average 25 kilos. A 25 kilo hide generate around 250 kilos of CO²-equivalent if left to go to waste."

Source: ReFED

"An estimated 150 million hides are wasted each year. This generates more than 7 billion tonnes of CO^2 emissions."

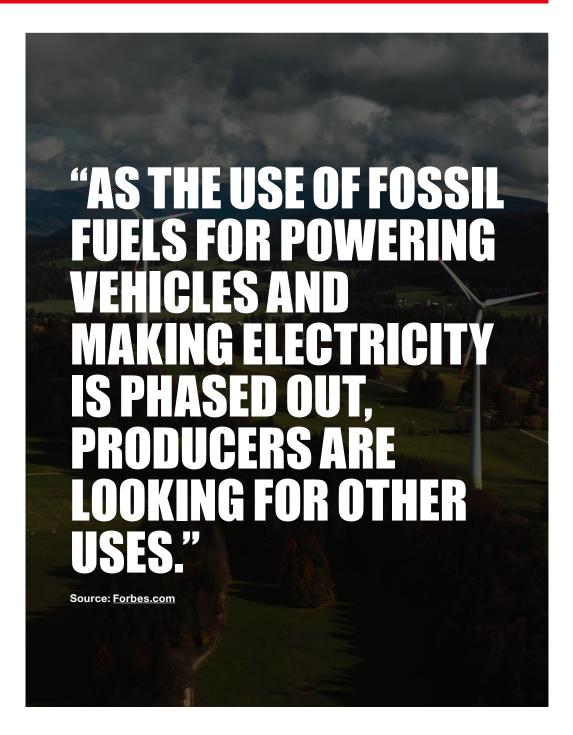
Source: Leather & Hide Council of America, ReFED

Cowhides are by-products of the beef and dairy industries, and when they are used to make leather the disposal emissions are avoided. Surely it makes sense to use the resources we have rather than to create more?



PLASTIC TO REPLACE PETROLEUM?





"From 2020 to 2040, BP analysis suggests that BP expects plastics to represent 95% of the net growth in demand for oil."

Source: Forbes.com

As we reduce the use of fossil fuels for fuel and power, we must be careful not to divert supply into new and emergent sectors.

"On average, one tonne of plastic produces five tonnes of CO2, roughly twice the CO2 produced by a tonne of oil"

Source: The Future's Not in Plastics Article, Carbon Tracker

"Only 9% of plastic is recycled." **Source:** The Economist

"85% of plastic ends up in landfill or as unregulated waste."

Source: United Nations Environment Programme

Despite the reduction of oil use for fuel and power, its use for the creation of plastics is rising dramatically. Plastic produces more CO^2 than oil, is rarely recycled and makes up a huge part of the waste that is landfilled and found in our oceans.