

Electric vehicles better for environment in NZ than in most other countries

Massey University Professor Ralph Sims is part of the Intergovernmental Panel on Climate Change (IPCC), and said because electricity generation in New Zealand was mostly renewable, it was one of the best countries in which to own an electric vehicle.

That information could help shape the thinking of consumers who were looking to upgrade their car in 2020, he said, tvnz.co.nz reported.

"Electric cars are far more efficient in terms of greenhouse gas emissions if the electricity is renewable electricity," Sims said.

"In New Zealand, 80-85 percent of electricity is renewable, and therefore the emissions per kilometer or per passenger kilometer are a lot lower with an electric vehicle than they would be for a petrol or diesel vehicle.

"On the other hand that electric vehicle's running in Australia, or China or other countries where coal fired power is where the electricity comes from, then you can actually produce more greenhouse gas emissions per passenger kilometer because of the form of generation.

"So from New Zealand's point of view, it's a real advantage having an electric vehicle in terms of the emissions from the fuel from the electricity."

An electric vehicle run in New Zealand emits between 30 and 40 grams of carbon dioxide per passenger kilometer traveled. By comparison, a comparative petrol car emits between 130g and 170g, and a diesel car emits between 120g and 150g of carbon dioxide per passenger kilometer traveled.

In Australia, that same electric car would emit between 80g and 130g of carbon dioxide per passenger kilometer travelled.

Sims said a further study by IPCC looking at the entire life cycle of an electric vehicle was due out in 2022.

That would include the expected life of the vehicle, battery recycling and more.



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Recycling of batteries used in electric vehicles had only just started — and was not yet available in New Zealand — but would improve the emissions of an electric vehicle even further, Sims said.

"About 90 percent of the materials and chemicals in the battery can be reused in new batteries.

"So that's the sort of overall analysis which has to be done, so it's not just the fuel, it's the overall use of the batteries as well." People could do all they wanted to reduce emissions, but one flight to Europe would blow everything out of the water.

One seat on a flight to Europe from New Zealand accounted for about a year's worth of carbon dioxide emissions from a petrol vehicle.

But flying was sometimes the better option when traveling in New Zealand, he said.

"If the plane's say a 150-seater Boeing which is the sort of plane that buzzes up and down between Wellington and Auckland, and if it's full or near full, then it's about 90 grams of carbon dioxide per passenger kilometer.

"From the emissions point of view, if a car drives up from Wellington to Auckland, and if it's the largest car, which we tend to use in New Zealand, and therefore produces more greenhouse gases, then it can be a lot more emissions — almost doubled in some instances — compared to catching the plane.

"But then of course, you've also got to get to the airport in a taxi or whatever as well. So you've got to add that into the total journey.

"But electric vehicles are still the best way to go in terms of reducing greenhouse gas emissions."

Although little used, the best way to travel around the country from an emissions standpoint was rail, which could be up to eight times better than an electric car.

Central China discovers earliest wheel ruts

Several wheel ruts dating back at least 4,200 years were found at a site in an ancient city in central China's Henan Province.

The finding was released by the archeological team of Pingliangtai Ancient City at a forum held by the Henan Provincial Institute of Cultural Heritage and Archeology, cncs.cn reported.

The ruts were worn into roads near the south wall of Pingliangtai, which was founded in 1980. Among the rutting traces, most are between 0.1 and 0.15 meters wide. The deepest point was 0.12 meters deep and the longest one was 3.3 meters long.

One wheel rut also had two strips, with a spacing of 0.8 meters, thought to be a track of a kind of two-wheeled vehicle, archeologists said.

Previously, archeologists have found several wheel ruts at the Erlitou Relics in Yanshi, Henan, making the history of Chinese vehicles about 3,700 years old.

Based on the existing archeological data, it is still unclear what the earliest vehicle in China was like. "So the discovery of these new ruts is of great academic value to study the invention of Chinese vehicle wheels and the origin of vehicles," said Qin Ling, head of the Pingliangtai archeological team.

Air pollution could kill over 160,000 in UK in next decade: Report

More than 160,000 people could die over the next decade from strokes and heart attacks caused by air pollution in the UK, a charity has warned. That is the equivalent of more than 40 heart and circulatory disease deaths related to air pollution every day.

The British Heart Foundation (BHF), which compiled the figures, said there are an estimated 11,000 deaths per year at the moment, but that this will rise as the population continues to age. It wants the UK to adopt World Health Organization (WHO) guidelines on air pollution and meet them by 2030, theguardian.com reported.

Current EU limits — which the UK comfortably meets — for fine particulate matter (PM2.5) pollution are 25µg/m³ as an annual average. The WHO limits are tougher, at 10µg/m³ as an annual average.

The BHF said PM2.5 can have a "seriously detrimental effect to heart health", increasing the risk of heart attack and stroke and making existing health problems worse.

Jacob West, executive director of health care innovation at the BHF, said: "Every day, millions of us across the country are inhaling toxic particles which enter our blood and get stuck in our organs, raising our risk of heart attacks and stroke. Make no mistake, our toxic air is a public health emergency, and we haven't done enough to tackle this threat to our society.

"We need to ensure that stricter, health-based air quality guidelines are adopted into law to protect the health of the nation as a matter of urgency. Clean air legislation in the 1950s and 1960s, and more recently the smoking ban in public



NICK ANSELL/PA

places, show that government action can improve the air we breathe."

In July 2019, the Department for Environment and Rural Affairs published a study showing that meeting WHO guidelines on air pollution was "technically feasible" in most areas of the UK by 2030.

The BHF has launched a new campaign, You're Full Of It, to highlight how people are inhaling dangerous levels of PM2.5 in towns and cities across the UK every day.

The environment minister, Rebecca Pow, said: "We all know the impact that

air pollution has on communities around the UK, which is why the government is stepping up the pace and taking urgent action to improve air quality.

"Alongside our Clean Air Strategy, which has been praised by the World Health Organization as 'an example for the rest of the world to follow', our landmark Environment Bill will include a commitment to a legally binding target on fine particulate matter which will improve the quality of millions of people's lives."

NHS medical director Professor Stephen Powis said: "The climate

emergency is also a health emergency, with thousands of avoidable deaths and hospital admissions every year linked to air pollution, which is why the NHS is playing its part by taking action to reduce carbon emissions, including cutting traffic by reducing the need for millions of hospital appointments through better services.

"With air pollution contributing to around 40,000 deaths a year and four in 10 children at school in high-pollution communities, it's clear that tackling air pollution needs to be everyone's urgent business."

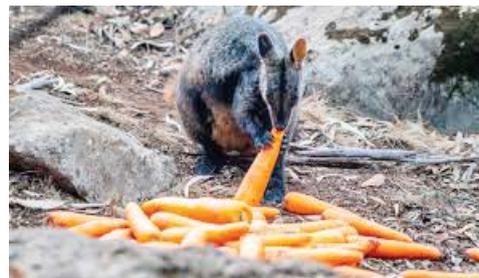
Australia drops 4,600 pounds of food, water from helicopters to feed hungry wallabies

The New South Wales National Parks and Wildlife Service in Australia provided a valuable assist to wallabies looking for a meal in the wake of devastating wildfires.

To help, the department made it rain carrots and sweet potatoes, usatoday.com reported.

The National Parks and Wildlife Service dropped thousands of pounds of vegetables to assist the Brush-tailed Rock-wallaby population, whose food sources were limited after wildfires tore through their habitats, according to the department.

In a statement, the department said, "1000 kilograms of sweet potato and carrot have been sent to six different colonies in the Capertee and Wolgan valleys; 1000 kilograms across five sites in Yengo National Park; almost 100 kilograms of food and water in the Kangaroo Valley, with similar drops having also taken place in Jenolan, Oxley Wild Rivers and Curraubundi national parks."



USA TODAY

That amounts to more than 4,600 pounds of food and water. The provisions were dropped from helicopters and delivered by land, a spokesperson from the National Parks and Wildlife Service told USA TODAY.

"The provision of supplementary

food is one of the key strategies we are deploying to promote the survival and recovery of endangered species like the Brush-tailed Rock-wallaby," New South Wales Minister for Energy and Environment Matt Kean said in a statement.

Kean said the food drop was the most

widespread ever done for the Brush-tailed Rock-wallabies. He added that cameras are being set up to monitor the food and animals in the region.

The National Parks and Wildlife Service said intensive feral predator control, which includes programs like fox control, will be implemented "to reduce further risk to the species."

"At this stage, we expect to continue providing supplementary food to rock-wallaby populations until sufficient natural food resources and water become available again in the landscape, during post-fire recovery," Kean said.

Animals in Australia have hit hard by the effects of scorching heat and bush fires.

The World Wildlife Fund in Australia estimates that as many as 1.25 billion animals may have been killed directly or indirectly from the fires that have burned in Australia since September.

Just last week, Aboriginal officials in South Australia approved the killing of more than 10,000 feral camels in a region battling drought.

Thailand helps sea turtle swim again with prosthetic flippers

That turtle Goody lost her left flipper years ago after she was entangled in a fishing net, leaving her immobile and stressed out in captivity.

But now Goody, an endangered olive ridley sea turtle, can swim with ease again, after receiving Thailand's first prosthetic flipper last week, Reuters reported.

"She's swimming much better and she's learning to use the two flippers to turn. You can see the difference," said Nantarika Chansue, a veterinarian who took part in the development of

Goody's prosthetic flipper.

Over the past year, Thai environment authorities and researchers at Chulalongkorn University in Bangkok have been working to develop prostheses for injured sea turtles, following similar projects in Japan and the United States.

Sea turtles are often injured or killed by human activities, most commonly by ingesting plastic or getting caught in fishing nets or lines, which can stop blood circulating to their limbs.

Previously, Goody was able

to swim only with difficulty using her one right flipper, while living in a confined space with other injured turtles. Another 10 Thai turtles have similar injuries that could benefit from the project.

While the prostheses won't help injured turtles become fit enough to return to the sea, they are aimed at improving their quality of life in captivity, Nantarika said.

"We are trying to develop some of the best ones ever created in the world," Nantarika said.



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