Press release

Are electric cars more eco-friendly? – myclimate presents its new car calculator

Zurich, 3 November 2020 – myclimate gives its customers the opportunity to calculate the climatic effects of various activities and to offset them through myclimate carbon offset projects, via its own website at co2.myclimate.org. Using existing emissions data and with the addition of further drive technologies and fuels, myclimate has now brought its new calculator for car journeys right up to date. The newly included category for electric cars now shows the lowest figures. The calculator for cruises has also been updated.

Using the latest studies and data, myclimate's team of environmental impact specialists in Zurich and Berlin have revised the free, easily accessible web calculator for car journeys and cruises. The car calculator shows the direct and indirect greenhouse gas emissions per vehicle over a given distance travelled. This service is experiencing growing demand. Use of the myclimate car calculator grew by around 150% in 2019. After the calculator for flight emissions, the car calculator is the second most frequently used calculation tool on the co2.myclimate.org website.

Changes

In the case of the car emissions calculator, the general fuel consumption data have been thoroughly updated on the basis of the ecoinvent database and new mobility statistics. Now it is also possible to calculate the greenhouse gas emissions of electric cars, hybrids and plug-in hybrids, and of fuels such as ethanol, natural gas and biodiesel. The results also include all the emissions from the manufacture through to the disposal of the vehicle. This means that in the electric vehicle category, the CO_2 emissions that are attributable to the battery are also included. Furthermore, the upstream emissions of the fuels or the electricity are also included in the calculation. The infrastructure-related emissions – caused by the use of the roads, for example – round off the results.

Link to the actual basis for calculations

"With our updated car calculator it is our intention to provide a calculation tool that is easy to use, covering all current drive technologies and providing reliable results according to the latest climate research findings", says Andy Eigenmann, Project Manager Consulting and Solutions, who designed the calculation basis for the new car calculator.

Impacts

The myclimate car calculator shows that electric cars cause significantly fewer harmful greenhouse emissions than vehicles powered by conventional fossil fuels. However, the source of

the electricity plays an important role in this. Covering 10,000 kilometres per year and with a fuel consumption of 17 kWh/100 km, an electric car causes 725 kg of CO_2 emissions when it is charged using certified green electricity. However, if the source is the regular German mix of electricity with its rather high proportion of fossil energy, the result is more than twice as high at 1.7 tonnes.

Even so, the electric car still "wins" in comparison to a diesel with an average fuel consumption of 8 litres per 100 kilometres. The diesel vehicle causes 3.7 tonnes of CO_2. A car fuelled by biodiesel has a slightly smaller carbon footprint, causing 3.1 tonnes of CO_2 per 10,000 kilometres. A car of a similar size powered by biogas, such as a VW Golf *blue.motion*, causes 2 tonnes of CO_2 emissions over the same distance.

These and more calculations can be carried out with the myclimate car calculator, with just a few clicks and entries. "The figures provide a sound, reliable picture of the CO_2 emissions. Even so, they cannot cover all environmental pollution, such as that caused by the raw materials used for the individual vehicle. However, we are happy to provide such calculations for fleet operators, for example," says Eigenmann, putting the calculation figures into perspective.

New cruise calculator

The cruise calculator has also been revised. It indicates the direct and indirect emissions per passenger for a set cruise duration, both while at sea and in port. The calculations are based on scientific publications and international statistics from a wide range of cruise lines and cruise operators, relating to capacities, degree of capacity utilised, vessel size and cabin types. In addition to fuel-related emissions, the current version also takes into account data relating to the ship's manufacture, maintenance, disposal, emissions in port, catering, cleaning, port infrastructure and the refrigerants used.

The basis for the calculations of the myclimate cruise calculator

The purpose of the myclimate emissions calculators is to heighten awareness of the climatic impact of various activities and lifestyles. They also give environmentally aware users the opportunity to directly offset their emissions. This offsetting supports certified carbon offset projects, which save CO_2 emissions or capture CO_2 to the same degree.

The two current calculator projects were conceived at myclimate by the "Consulting & Solutions" team under the leadership of Martin Lehmann. Daniel Berking and Dimitrios Stamatelatos were responsible for developing the calculation basis for the cruise calculator. The "Web Development" team, made up of Maren Heltsche, Urs Kleinert and Ewald König under the leadership of Julien Floris, implemented the programming element of the project.

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About myclimate

myclimate is a partner for effective climate protection – both globally and locally. Together with partners from the business world and private individuals, myclimate aims to shape the future of the world through advisory and educational offers as well as its own projects. myclimate pursues this aim as a non-profit organisation that operates in a market-oriented and customer-focused way.

The international initiative with Swiss roots is a global quality leader in voluntary CO_2 offsetting measures. Its customers include large, mid-sized and small companies, public administrations, non-profit organisations, event organisers and private individuals. myclimate is also represented in other countries such as Germany, Austria, Sweden and Norway through partner organisations. At the same time, myclimate looks after business and private customers around the world from its office in Zurich.

With projects of the highest quality, myclimate drives forward measurable climate protection and sustainable development worldwide. The voluntary offsetting of CO_2 emissions currently takes place in more than 125 climate protection projects in 37 countries. Emissions are being reduced by replacing fossil fuels with renewable energy sources, implementing local reforestation measures with small-scale farmers, and introducing energy-efficient technologies. myclimate's climate protection projects meet the highest standards (Gold Standard, Plan Vivo) and not only serve to reduce greenhouse gases but also a demonstrable, positive contribution to sustainable development on a local and regional basis.

myclimate encourages everyone to do their bit for our future with action-based, interactive educational offers. With this aim, the foundation has already reached more than 25,000 schoolchildren and 10,000 apprentices in Switzerland, and established a global network of 1,600 students and young professionals. It also provides advice on integrated climate protection measures with tangible added value. In the field of CO_2 and resource management, myclimate supports companies with consultations, analyses, IT tools and labels. Its offering ranges from simple carbon footprints (emissions calculations) at corporate level to extensive life cycle assessments for products. Experienced advisors help to identify and exploit potential in the areas of energy and resource efficiency.

Since the foundation started, myclimate's climate protection projects have created thousands of jobs, protected biodiversity and improved the general standard of living for hundreds of thousands of people. Not least because of this, the German Environment Agency specifically elevates myclimate as a provider of voluntary CO_2 offsetting. In both 2015 and 2012, two myclimate projects each were named by the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) as "game-changing climate lighthouse activities" and honoured by UN Secretary-General Ban Ki-Moon in person at the UN climate change conferences in Paris and Doha. Furthermore, the myclimate educational project "Klimalokal" received the Milestone Prize in 2012, which is the highest award in Swiss tourism. In May 2016, myclimate was awarded the PrixEco Swiss sustainability prize.

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