The MICE and Event Carbon Emission Calculator - A Convenient Green MICE Model for MICE Stakeholders

An Application to 2023 UFI Sustainable Development Award Presented by Macau Fair & Trade Association

Background

Greenhouse gas emissions from exhibitions and events pose critical threats to the environment (such as climate change and air pollution), public health, and the economy. Therefore, the Macau Fair & Trade Association (MFTA), in collaboration with environmental protection experts, professional research teams from the City University of Hong Kong (CityU), and practitioners from Macao's MICE industry, has developed the MICE and Event Carbon Emission Calculator ("the Calculator") for the use of interested parties, in order to facilitate individuals from all sectors, especially MICE and event industry practitioners, to learn about and calculate the carbon emissions associated with events. The Calculator is utilized to measure the greenhouse gas emissions of MICE and events that have an impact on the environment.

What is MICE & Event Carbon Emission Calculator?

For a more accurate calculation of the carbon emissions by all relevant parties in MICE events, the Calculator provides guidance and assistance to the organizers, exhibitors, contractors, venues, and visitors (or other participants) in implementing practical measures to reduce carbon emissions during MICE events. Therefore, you can find the six stakeholder groups mentioned above and select the one that suits you on the Calculator website.



You can choose your role among the six core stakeholders of MICE in the Calculator

As an event organizer, you can create a dedicated account by applying to MFTA. In such an account, you can create your events on the Calculator website and share them with other stakeholders to use the Calculator. You can review all the data collected on your event to understand the carbon emissions at the end.

For other stakeholders, the Calculator is a good platform to keep track of your carbon footprints from the events you have participated in. You can find the carbon emissions of each event and upload photos and share your thoughts about the events you have attended.

The Calculator is easy to use. First, register or log in to your account. Second, search or create an event you have attended to record your carbon emissions and select one of the six roles you played in that event. Then fill in the data as the Calculator guides you. At the end, the Calculator will generate a carbon summary report for you to check how much carbon emission you emitted in that event.

The result of carbon emissions is based on the formula below to calculate in the Calculator:

 CO_2 -e emission = Quantity of Greenhouse Gas-emitting event \times Emission factor

You can also find guidelines and tips on Green MICE and Events for the six stakeholders in different spheres on the website. For instance, the exhibitor should work with local companies to minimize the cost of long-distance freight hence decreasing carbon emissions in the transportation sector. Meanwhile, it is suggested that the organizer provide shuttle buses for visitors and exhibitors from hotels and airports to the exhibition venue to reduce carbon emissions in transportation.

You are welcome to try the Calculator by visiting www.gogreenshows.com

What are we doing through the Calculator?

The Calculator has been used in various significant exhibitions and events in Macao. The following table shows part of the events already calculated the carbon emissions via the Calculator and acquired carbon credits from green projects in Mainland China:

Type	Date	Name	Organizer(s)
Exhibition	Oct. 20-22,	27 th Macao International Trade &	Macao Trade and Investment
	2022	Investment Fair (MIF)	Promotion Institute (IPIM)
Exhibition	Nov. 11-13,	Guangdong & Macao Branded	IPIM and Department of Commerce
	2022	Products Fair 2022 (GMBPF)	of Guangdong Province
Exhibition	Dec. 9-11, 2022	2022 Macao International Environmental Co-operation Forum & Exhibition (MIECF)	IPIM and Macao Environ-mental Protection Bureau

Type	Date	Name	Organizer(s)
Event	Dec. 9, 2022 – Feb. 5, 2023	Light Up Macao 2022	Macao Government Tourism Office (MGTO)
Event	Jan. 24 & 28, 2023	Parade for Celebration of the Year of the Rabbit	MGTO



Certificates in carbon neutrality of events

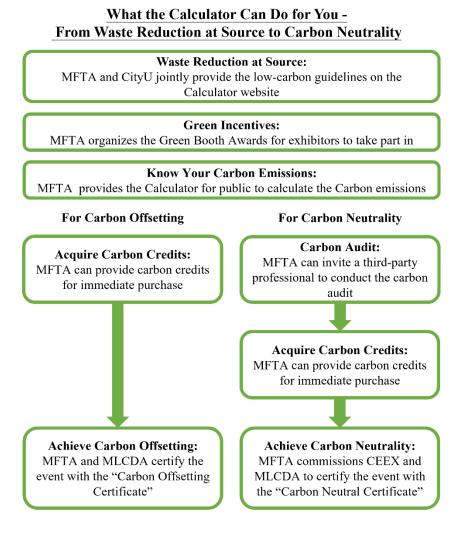
Among the above, the MIECF is worth mentioning. The last edition of MIECF was the first professional exhibition on "Carbon Neutrality" in Macao. The carbon emission calculation of the exhibition was cross-checked with the "Implementation Guidelines for Carbon Neutrality of Large-scale Events (Trial)" issued by the Ministry of Ecology and Environment of China in 2019, and the Calculator to estimate the carbon dioxide emission of 2022MIECF. According to the estimate, the total amount of estimated carbon dioxide emissions of 2022MIECF was 513.50 tCO2e.

What will we do in the near future?

From waste reduction at source to carbon neutrality throughout the entire MICE event, MFTA together with the Macao Low-Carbon Development Association (MLCDA) and the Guangzhou Emissions Exchange (CEEX), have developed an easy-to-use "Green MICE" model for all stakeholders involved in MICE and events. MFTA will also continue to work with the CityU to optimize the Calculator and gather feedback from the MICE industry to adjust the emission factors as necessary.

For the convenience of the Calculator users, MFTA plans to provide carbon credits for the Calculator users. After calculating the carbon emissions in the Calculator, the users can immediately acquire the carbon credits as the same amount as their carbon emissions. Moreover, MFTA will assist the event organizer in inviting a third-party professional to carry out a carbon audit if they wish to apply for the Carbon Neutral Certificate.

We believe that the Calculator will soon become **the first one-stop platform providing "Carbon Neutrality" services**, helping the people involved in MICE and trade industry stakeholders to adopt and implement mitigation measures, in an attempt to reduce carbon emissions and build a low-carbon and green MICE industry.



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