Bend company launches CO2 compensation program for aviation industry

by Bend_Weekly_News_Sources

BEND, Ore. â€“ A carbon compensation program for aircraft, the first of its kind, is now available for general aviation aircraft such as corporate jets, air charters, fractional ownership programs, and private and sport aviation. The Bend, Oregon-based Carbon Neutral Plane Program certifies that participating airplanes have compensated 100% for the carbon dioxide (CO2) they release into the air by financially supporting verified projects aimed at reducing the equivalent amount of CO2 from other energy uses. Learn more at www.CarbonNeutralPlane.com

Compensation is accomplished through the widely accepted practice of purchasing carbon offsets from verified projects and programs. Carbon offsetting, a common and popular practice in Europe, is increasingly supported in the United States by major companies, political leaders, public figures, and communities concerned about the environmental impact of CO2 in the atmosphere. Until now, aviation was one of the few highly visible, consumer-based industries that did not make this option available to its owners and customers. Because air travel is convenient, fast and rapidly increasing worldwide, CO2 emissions from aircraft are growing and forecast to exceed that of automobiles by 2020. The Carbon Neutral Plane Program has been introduced as a proactive effort to counteract this growing trend in greenhouse emissions. "As a pilot with strong environmental concerns, I realized there was a substantial need to decrease carbon footprints in the aviation industry," said Jeffrey G. Witwer, Ph.D., founder of the Carbon Neutral Plane Program. "I'm pleased that members of our program will have a cost-effective, real-world opportunity to mitigate the impact of personal and corporate aircraft emissions on the environment. We've made every effort to ensure our program meets the needs of the general aviation community with the highest degree of integrity and transparency." Two versions of the program are available: one tailored to the unique needs of business aircraft owners and the other designed for owners of personal aircraft. The Carbon Neutral Plane Program is currently the only program designed specifically for dealing with CO2 emissions from general aviation aircraft and places the highest priority on the quality and value of its certification. For more information, please visit www.carbonneutralplane.com. What Is Carbon Offsetting?Carbon offsetting, a common practice in Europe, is becoming increasingly popular in the United States with major companies, public figures, and communities concerned about the environmental impact of CO2 in the atmosphere. With carbon offsetting, compensation for CO2 produced by burning fossil fuels in one location or application is achieved by paying for a corresponding reduction in CO2 produced in another location or application. Carbon offsetting includes:â€¢ Purchasing carbon credits to support various projects such as wind farm development, methane recovery or reforestation effortsâ€¢ Purchasing carbon financial instruments from the Chicago Climate Exchange, the world's first and North America's only voluntary, legally binding rules-based greenhouse gas emission reduction and trading systemWhy Aircraft CO2 Emissions Are of ConcernGeneral aviation is an important economic component in the United States as over 160 million passengers are carried annually. This industry employs over 1.3 million people and generates over $150 billion annually to the U.S. economy. And while scheduled airlines serve over 500 communities in the U.S., over 3000 communities have access to the national air transportation system only through the general aviation fleet. Direct air access to smaller communities via general aviation operations can save time and traffic congestion, thereby reducing energy waste and increasing the economic vitality of those communities. Despite common misconceptions about air travel directly relating to pollution, travel by plane is quite energy efficient. The Environmental Protection Agency (EPA) estimated that energy consumption by the United States commercial airline fleet was about 53 miles per gallon per passenger in 2003. This number has increased from about 28 miles per gallon per passenger seat mile in 1970 due primarily to increases in aircraft load factor and the efficiency of aircraft engines. However, it is not expected that such dramatic improvements will continue in the future as load factor and efficiency limits are being reached. While the efficiency of air travel via a highly loaded airliner compares favorably to other common transportation modes such as automobiles, the same cannot be said for smaller-sized airplanes carrying less than a full load of passengers. A typical executive jet might achieve a fuel efficiency of 18 miles per gallon per passenger if it is carrying six passengers. However, if it is carrying one passenger, it would realize only 3 miles per gallon per passenger. Because air travel is convenient, fast and rapidly increasing worldwide, CO2 emissions from aircraft are growing and are forecast to exceed that of automobiles by 2020.

A single round-trip flight on a commercial airliner from Seattle to New York would produce as much CO2 as an average home produces in three months. The same trip in an executive jet (assuming a single passenger is on board) would produce the same amount of CO2 as a typical home produces in 3.7 years. The Carbon Neutral Plane Program has been introduced as a proactive effort to counteract this growing trend in greenhouse emissions. Planes and CO2: A Unique Challenge Researchers and policy makers around the world are investigating ways to manage and mitigate the effects of CO2 released by airplanes. However, there are many factors specific to aircraft that present unique obstacles. Renewable fuels such as bio-fuels are unlikely candidates due to uncertainty of performance at high altitudes, while novel propulsion systems such as electric drives or hydrogen-fueled engines could take decades to be manufactured and utilized in mainstream aviation. Additionally, aircraft are currently designed to be as fuel efficient as possible due to the high cost of carrying the weight of fuel, thereby making advances in aircraft fuel efficiency incremental in the coming years. The Carbon Neutral Plane Program is an economical way for plane owners to procure carbon offsets and is currently the most effective tool for dealing with aircraft CO2 emissions. How the Program WorksThere are two options for participation in the Carbon Neutral Plane Program, depending on whether the participating plane is used for business or personal purposes. In the context of the program, business aircraft include those owned by corporations, air taxis, flight schools, and fractional ownership programs. Personal planes are those that are owned and operated for the personal pleasure and convenience of the owner, with minimal business use. The procedures, costs, and benefits of each option are tailored to the needs and interests of each type of participant. Business Plane OptionBusinesses that own and operate aircraft and participate in the Carbon Neutral Plane Program will realize professional benefits from their membership that are over and above the direct environmental good their participation produces. The Business Plane Option is designed to help members maximize these benefits for their companies. An important component of this option is the high standard that Carbon Neutral Plane sets to receive its certification. By contract, the client submits auditable records, such as Federal Aviation Association (FAA) logbook pages, so aircraft use can be verified by Carbon Neutral Plane. The required carbon offsets are then calculated based on fuel consumption of the client's aircraft/engine combination. This process, independent of the client's internal operations, ensures that the resulting certification has credibility to outside observers. This is important for firms meeting auditable standards of certification for carbon neutrality. Typically these businesses have internal sustainability standards, a need to meet auditors' standards for public statements, and/or are part of a larger corporate "cap and trade" program. To ensure compliance standards, the Carbon Neutral Plane Program maintains auditable records, to which the client has contractual access rights, of the offsets that have been purchased on the client's behalf.To help realize maximum business benefits, members of the Business Plane Option:â€¢ receive an annual, serialized decal and hard-copy membership certificate signifying participationâ€¢ are granted the right to use the Carbon Neutral Plane logo in company publications and marketing materialsâ€¢ are listed in the "Members" section of the Carbon Neutral Plane Web site (linking to client's own Web site if desired) and any list of clients published by the Carbon Neutral Plane ProgramPersonal Plane OptionThis option is intended for the individual plane owner who wants to offset his or her plane CO2 emissions for personal, non-commercial reasons. The owner submits a personal statement of annual plane use and required CO2 offsets are determined based on FAA standard fuel consumption statistics for the appropriate class of plane (single-or multi-engine). The owner receives an annual decal for display in or on the plane and a hard-copy membership certificate. An Economical ChoiceBecause the Carbon Neutral Plane Program is designed specifically by and for airplane owners, it is highly cost effective. The program operates as a buyer's "cooperative" in that participants pay an annual, prorated membership fee. Carbon Neutral Plane purchases offsets at zero markup for the member (other than any associated transaction costs) from high-quality offset providers. Because Carbon Neutral Plane is a volume buyer of such offsets, and, for example, has invested in becoming a member of the Chicago Climate Exchange, it can buy quality offsets at better prices than an individual can. High-quality offsets cost less than many realize. High volume purchases, such as those made by Carbon Neutral Plane, would correspond to around $0.05 per gallon of aviation fuel at today's market prices.Carbon Neutral Plane's business model is cost-effective for both Business and Personal members. Business members will find that they do not need internal staff to manage their offset efforts. Also, they will find value in third-party verification of their flight operations and offset efforts. Personal members will find that having access to the buying power of Carbon Neutral Plane will likely procure higher-quality offsets at lower costs than they might receive on their own. In addition, both classes of members will know that they are contributing to a carbon

offsetting effort as part of the aviation community, thereby strengthening its positive public image. Carbon Neutral Plane Program Founder Dr. Jeffrey G. Witwer has an extensive background in energy, the environment, and aviation. He holds a Bachelor of Science degree in Mechanical Engineering from Northwestern University; a Master of Science degree in Aeronautical Sciences from University of California, Berkeley and Business Administration from Golden Gate University; and a Doctorate degree in Mechanical Engineering from the University of California, Berkeley. He is also a registered Professional Engineer in the state of California.His work in energy started in the mid-1970s at the world-renowned Stanford Research Institute where he managed research projects in renewable energy technologies, funded by the Department of Energy and private firms. This work served as an important background for establishing some of the pioneering federal renewable energy policies of the National Energy Act of 1978. Based on these research activities, Dr. Witwer testified before Congress during hearings related to renewable energy policies. This work also led him to be named a Congressional Fellow from 1978 to 1979, serving on the House Energy and Power Subcommittee under Congressman John Dingell. Following his work with Congress, Dr. Witwer returned to the private sector where he worked as a consultant in Silicon Valley, advising businesses on developing photovoltaic, wind, and energy conservation technologies. Clients included private corporations and the Electric Power Research Institute. He also served on the board of a solar-energy venture as well as energy advisory committees of the National Science Foundation during this time. Dr. Witwer then spent a decade in the information and technology industry where he held senior management positions in marketing and international business management. In 1998, he co-founded a company that develops computer-based education tools to enhance the teaching of sciences and math to middle school students. He sold this company in 2004 and again began to focus his interest on energy issues. With a long-standing interest and involvement in aviation, Dr. Witwer began flying in 1966 and currently flies a Piper Malibu. Since 1996, he has served on the Board of Computational Engineering International, Inc., a privately held company that develops technical software used by most major aircraft manufacturers in the western United States for computational fluid dynamics.

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