



## PHOENIX SKY HARBOR INTERNATIONAL AIRPORT CARBON REDUCTION POLICY AND STRATEGY

Aviation activity, which includes airports, airlines and other aviation stakeholders, accounts for 2% of total carbon emissions globally. Although airports represent a small portion of this 2%, they have a responsibility to manage and reduce their carbon footprint that contributes to global climate change.

The City of Phoenix Aviation Department places a high emphasis on climate protection and believes there is further potential for managing and reducing carbon emissions despite a steadily growing airport infrastructure. The Aviation Department is committed to reducing carbon emissions across all functional areas it controls or influences at Phoenix Sky Harbor International Airport (PHX), Goodyear Airport (GYR) and Deer Valley Airport (DVT). With this policy, the Aviation Department affirms its commitment to a simple yet sweeping goal: Achieve net zero carbon emissions from airport-controlled sources by 2040.

In support of this long-term goal, the Aviation Department will meet interim goals established by the City of Phoenix for achieving 15% electricity from renewable sources by 2025; acquiring carbon-free electricity by 2030; and reducing energy consumption in buildings 30% by 2030 compared to 2012.

Utilizing the globally endorsed Airport Carbon Accreditation (ACA) Program, PHX established a carbon footprint in 2014. By 2019, PHX was able to achieve a 27% reduction over 2014 levels for airport-controlled emissions. Almost 90% of airport-controlled emissions come from the purchase of electricity, while the remainder is derived from the use of fuels for fleet vehicles, emergency generators, natural gas use and employee business travel. It is therefore crucial that future efforts focus on energy use to reduce carbon emissions.

While not under the direct control of the airport, the Aviation Department is also committed to influencing carbon emissions reductions from third-party stakeholders operating at PHX, as they account for 94% of total emissions. The Aviation Department will work with third-party stakeholders to identify and pursue opportunities to achieve shared carbon reduction goals.

### Recommendations

**Energy Conservation:** The Aviation Department will pursue initiatives to increase energy efficiency and reduce consumption where feasible. For this purpose, a detailed energy analysis was completed of PHX, GYR and DVT, followed by investment-grade audits and the development of a comprehensive Net-zero Carbon Roadmap identifying prioritized, vetted Energy Conservation Measures (ECMs), considering costs and carbon reduction impacts. As a demonstration of this commitment, the Aviation Department will allocate funding between 2022 and 2030 to enact roadmap recommendations.





**Renewable Energy:** The Aviation Department will increase the use of energy from renewable sources, transitioning away from fossil fuel sources. Through development of the net-zero Carbon Roadmap, opportunities for additional on-site solar energy projects were identified and will be planned to achieve the City of Phoenix renewable energy sourcing goal by 2025. Furthermore, the Aviation Department will pursue an option for additional solar energy through utility-scale project(s) and/or obtaining Renewable Energy Certificates (RECs) to achieve net-zero carbon for energy by 2030.

**New Construction:** The Design and Construction Services (DCS) Division of the Aviation Department will utilize high energy efficiency standards and equipment in new airport construction to ensure reduced energy consumption in buildings. Opportunities to incorporate solar energy into the project will also be evaluated and implemented where practical. New construction can take advantage of energy saving technologies by considering the Total Cost of Ownership over the life of the facility during initial budgeting and by using energy modeling when selecting equipment. The DCS Design Standards are the mechanism to implement this strategy and will be updated as new technologies are available.

**Financial:** The Aviation Department will prioritize capital expenditures during new construction that support carbon emissions reductions and decrease energy use, considering long-term operational costs, to avoid more costly interventions post-construction to meet carbon reduction goals. Any value engineering of projects that eliminates these improvements must be approved by the Director of Aviation Services. Requests for Supplemental Operating Budget will be prioritized to allow retrofit projects that support carbon emissions reduction and decrease energy use while showing good return on investment.

**ACA Accreditation:** The Aviation Department will maintain accreditation in the ACA Program for PHX as the industry standard for accounting, tracking, and reducing carbon emissions. For reporting year 2021, PHX will report at Level 4 - Transformation. At this level, PHX will continue to evaluate the annual carbon footprint to focus efforts and verify outcomes, reduce carbon emissions for airport-controlled sources and actively pursue partnership opportunities with significant third-party stakeholders to reduce their carbon emissions. The Aviation Department will also measure the carbon footprint of GYR and DVT as well as pursue accreditation in the ACA Program for both airports.

This 2022 update to the PHX Carbon Reduction Policy and Strategy has been shared with responsible Aviation Divisions to prioritize activities and will be communicated to employees, the public and the airport community.

A handwritten signature in black ink, appearing to read "Chad R. Makovsky".

Chad R. Makovsky, C.M.  
Director of Aviation Services

