



Airport Name: Aeropuerto Internacional El Dorado Responsable: Alejandro Sanabria, Jefe de Sostenibilidad Project Name: Conexión Circular

Executive Summary

The Conexión Circular project at El Dorado International Airport, operated by OPAIN S.A., is a comprehensive circular economy initiative focused on the efficient management of materials, energy, and water within airport operations. This program, aligned with Colombia's National Circular Economy Strategy, aims to reduce environmental impact, maximize the value of the resources used, and advance towards full sustainability.

In terms of material flow, the airport achieved a 79% recovery rate in 2023, with a goal of reaching 80% in 2024. The Sorting and Recovery Station (ECA) processes approximately 7,000 tons of waste per year, recovering materials such as plastics (PET, HDPE, PP), paper, cardboard, metals, and organics for composting. Additionally, the use of recycled plastic-modified asphalt has been implemented for paving runways and roads, which not only repurposes these wastes but also reduces the need for frequent maintenance. This has avoided the emission of over 69,000 tons of CO2.

In terms of energy flow, the airport has reduced its greenhouse gas emissions (GHG) by 78% since 2018 through energy efficiency projects, including the installation of LED lighting, photovoltaic solar systems (10,368 solar panels), and the optimization of cooling plants. These initiatives have saved energy equivalent to the consumption of 3,559 homes over four years.

Regarding water flow, water management has been optimized through the reuse of rainwater and the treatment of wastewater, with the goal of achieving water neutrality by 2028. Since 2020, 65 water refill stations have been installed, preventing the use of over 6 million single-use plastic bottles. The program positions El Dorado as a benchmark in airport sustainability at both regional and global levels.

Project Results and Benefits

The Conexión Circular project has generated significant environmental and economic benefits at El Dorado Airport, focusing on three key flows: materials, energy, and water.

In the materials flow, the airport achieved a recovery rate of 79% in 2023, processing approximately 7,000 tons of waste annually. Through the Sorting and Recovery Station (ECA), materials such as plastics (PET, HDPE, PP), paper, cardboard, and metals have been recovered, significantly reducing the waste sent to landfills and promoting resource circularity.

In the energy flow, the installation of 10,368 solar panels and LED lighting systems has enabled a 78% reduction in greenhouse gas emissions since 2018. These measures have saved the equivalent of the energy consumption of 3,559 homes over four years. Additionally, the project has accumulated total savings of more than 9 million dollars across the three flows due to improvements in energy efficiency.

Regarding the water flow, 65 water refill stations were installed, preventing the use of more than 6 million single-use plastic bottles since 2020. These measures have improved water management, and the airport is advancing toward its goal of water neutrality by 2028, optimizing the use of rainwater and wastewater treatment.

Overall, Conexión Circular has achieved environmental, operational, and financial improvements, positioning El Dorado as a leader in airport sustainability. This milestone is crucial in an airport that handles more than 40 million passengers annually, with over 300 commercial brands and an airport community of 26,000 people.



