

Airport Sustainability

A Holistic Approach to Effective Airport Management

Sustainability – Redefining the Triple Bottom Line for Airports

Airport Sustainability, in effect is a holistic approach to managing an airport so as to ensure the integrity of the Economic viability, Operational efficiency, Natural Resource Conservation and Social responsibility (EONS) of the airport. Aviation industry research and sources validate that environmental and energy based sustainability initiatives are already being implemented and practiced in response to the aviation/airport industry's financial pressures, as well as to the expectations or mandates of regulatory agencies.

The Transportation Research Board (TRB) in its 2005 conference proceedings, **"Integrating Sustainability into the Transportation Planning Process"** envisioned sustainability at its most basic level as *"one that meets the transportation and other needs of the present without compromising the ability of future generations to meet their needs."* The TRB vision speaks to the essence of the committee's vision that reaches well beyond transportation surfaces and systems. EONS, as previously introduced, is the acronym for the four functional parts completing the whole for holistic airport management: Economic, Operational, Natural resources and Social (EONS).

The Airport Sustainability Committee was formed to address sustainability for airports as a Program with a plan of action, a mission, and a communication vehicle for quantifying and promoting sustainability benefits that exist for airports of all sizes and demographics. The committee's membership is comprised of ACI-NA members from the joint Environmental and Technical committees, which is primarily airport directors and industry consultants who have studied and practiced in the area of sustainability.

Airport Sustainability and LEED

LEED "green" initiatives have, in recent years, typified sustainability for the design and construction of new or rehab of existing facilities. The LEED model promotes the benefits that are associated with social responsibility, energy renewal and environmental endeavors that can be systematically programmed into facility expansion and renewal projects. LEED however does not address the opportunities and challenges that exist within the airport environment. For example, LEED promotes decreasing the environmental footprint. Integrating LEED criteria into an airport environment holistically requires fundamentally addressing how airports do business. For example, an environmental footprint for a terminal is subject to the wingspan of the aircraft. When airports begin using more, smaller aircraft such as Regional Jets (RJ's) to reduce the environmental footprint, the delicate balance of managing operational and economic outcomes is impacted because RJ's pay fewer revenues to airports and consume comparable operational resources to those of larger aircraft.

This said LEED initiatives provide a meaningful beginning to a more robust definition of sustainability that airports can exploit in today's time and budget constrained business environment. EONS broadens the definition of sustainability to also address the operational aspects of the business to include:

- Operating Costs (Airport Infrastructure, IT, Fleet Management, etc.)
- Maintenance Costs
- Component Renewal Costs
- Life-cycle Costs (e.g., debt service, component renewal, and O&M)
- Ability to holistically trade-off priorities in life-cycle

Broadening this definition for the business of managing an airport is particularly important because while not all airports can or need to build new facilities, all have opportunities within the construct of their business model to leverage their O&M dollars in ways that promote sustainability. The EONS model defines "pay-back" through proven business practices that pay benefits to our customers, our employees, our neighborhood, our bottom line and our industry.

Sustainability Initiatives

Airport Sustainability as a business strategy has both immediate and long-term benefits that can be measured and when persistently managed, should be rewarded. The Airport Sustainability committee seeks to propagate its mission to help airports document and measure their efforts, share their successes and receive the rewards and recognition for the good work they are doing. Specific products and strategies in the form of standardized presentations, website development, education and training tools, white papers, case studies, best practice indices, certification processes and a formal communication plan are being developed toward this end.