



Honolulu International Airport is the latest certified airport in the United States.

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by Juan A. Maldonado

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# Airport Carbon Accreditation: A Unique Industry-Driven Sustainability Program

The Airport Carbon Accreditation (ACA) Program,<sup>1</sup> The Climate Registry (TCR),<sup>2</sup> and CDP (formerly the "Carbon Disclosure Project")<sup>3</sup> are three voluntary sustainability programs with a focus on carbon management in the marketplace. While TCR and CDP are examples of industry-neutral programs

that promote self-disclosure of an organization's impacts as a first step toward identifying risk and opportunities along the path of sustainable development, the ACA Program takes the additional step of defining differentiated, but complimentary, pathways for members in a specific industry group to join in coordinated climate action.



In June 2009, the Airports Council International implemented the ACA Program with the objective of providing airports an industry-relevant carbon management standard. The ACA Program enjoys great popularity internationally with 119 participating airports and membership is expected to grow with the recent expansion of the ACA Program to North America. Over the past 12 months, four airports in the United States and two airports in Canada have successfully achieved ACA accreditation, while many other U.S. airports have expressed interest in joining the program.<sup>4</sup> As of August 2015, a total of 125 airports have registered with the ACA Program. Figure 1 visualizes the distribution of airport participation by region.

The appeal of the ACA Program is due, in part, to good design, as well as successfully demonstrating positive outcomes. Conceived by practitioners in the airport industry for use by their peers, the ACA Program stipulates requirements that are concise, targeted, and directly relevant to airports, while at the same time flexible enough to account for an airport's size, resources, and breadth of climate action. Additionally, the environmental performance data collected from participating airports enables the ACA Program to assert with high confidence the level of greenhouse gas (GHG)

abatement achieved by its members. In the last year alone, ACA-certified airports reduced 375,493 metric tons of carbon dioxide (CO<sub>2</sub>) emissions,<sup>5</sup> which is approximately equivalent to the 2014 GHG emission output of the Dighton natural gas-fired power plant in Massachusetts with nameplate capacity of 200 MW.<sup>6</sup>

### Levels of ACA Certification

The ACA Program provides airports with a common framework for gradually managing the climate change impact of their operations, as well as those of close partners, including airlines, tenants, and customers. Airports entering the program must decide the extent to which they will commit to managing their carbon impact according to a four-level incremental scale. The key requirements by certification level are briefly described below. Additional descriptions of each certification level can be found online at [www.airportcarbonaccreditation.org](http://www.airportcarbonaccreditation.org).

**Level 1.** Airports must assess the GHG impact of their own operations, that is Scope 1 and Scope 2 emissions as defined by the World Business Council for Sustainable Development's GHG Protocol.<sup>7</sup> Typically, Level 1 carbon footprints reflect emissions associated with electricity purchases, natural

**Figure 1.** Accredited airports by region, worldwide.

Source: Annual Report 2014-2015; Airport Carbon Accreditation, August 2015, p. 4.

The ACA Program embodies key features that make it a compelling sustainability initiative.



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gas combustion for heating, and transportation fuel combustion from the airport's vehicle fleet.

**Level 2.** In addition to Level 1 requirements, airports must have a strategic plan for attaining GHG emission reductions, adopt an emission reduction target, and, more importantly, demonstrate an emissions performance improvement. The latter implies that an airport has assessed its Scope 1 and Scope 2 carbon footprint for at least two consecutive years in order to demonstrate a decreasing trend in GHG emissions.

**Level 3.** In addition to Level 2 requirements, airports must assess the GHG impact of close partners, such as airlines, tenants, and customers, and engage key partners in designing supplemental GHG emission reduction strategies. While airports must demonstrate emissions improvement of their own operations (i.e., Scope 1 and Scope 2 emissions), attainment of emissions reductions from airlines, tenants, and customers is not an ACA Program requirement.

**Level 3+.** In addition to Level 3 requirements, airports must attain carbon-neutrality for activities within their control (i.e., Scope 1 and Scope 2 emissions). This is typically accomplished through a combination of emission reduction strategies implemented on-site and the procurement of carbon offsets.

### Tips for a Smooth ACA Certification

While the ACA Program is by design accessible to any interested airport, there are some elements that may pose a challenge to potential participants, especially those with little or no experience with carbon footprint verification. For airports considering participation in the ACA Program, below are five tips that can smooth the certification process.

**1. Become familiar with the carbon footprint verification requirements.** Note that at any level of participation, airports must have their carbon footprint verified by an independent third-party. More importantly, airports entering the program

at Level 2 and beyond must verify at least two consecutive years of historic carbon footprint data, so that they can satisfactorily demonstrate emissions improvement over time.

### 2. Minimize the number of individual GHGs covered in the airport's carbon footprint.

While an airport may choose to assess GHG emissions for all six Kyoto Protocol-named gases, the ACA Program only requires the assessment of CO<sub>2</sub>.<sup>8</sup> Airports should consider the merits of this option because, in most cases, reducing GHG coverage helps airports focus limited resources on the big carbon footprint drivers (e.g., electricity, natural gas consumption), rather than smaller and less consequential emission sources such as refrigerant leaks from air conditioning equipment.

**3. Allow sufficient time and resources for verification activities.** Verification is an iterative auditing process that requires close communication and coordination between the airport and verifier. Factors that increase the timeline for verification include the number and complexity of emissions sources, as well as the selected level of ACA certification. On the other hand, the verification process becomes more agile after the first year of verification, once the airport becomes familiar with the particulars of the ACA Program and verifiers become better acquainted with an airport's organization, staff, and data management systems.

### 4. Choose the appropriate level of ACA certification.

The level of certification should be commensurate to the strength and breadth of existing policies, procedures, and data management systems. For instance, Level 3 certification should only be pursued if the airport has commissioned or prepared a study that quantifies emissions from aircrafts, ground support equipment, and ground access vehicles.

### 5. Contact an ACA administrator with questions.

Unlike some online retailers, ACA representatives are available to answer questions by phone or e-mail. Airports that maintain an open line of communication with the ACA staff from the onset of the application and certification process will certainly avoid bumps down the road.

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## Conclusion

The ACA Program embodies key features that make it a compelling sustainability initiative. It balances having a rigorous common framework for climate action while maintaining enough flexibility to accommodate a broad range of competencies and resources held by airports. Additionally, participating airports enjoy the hard benefits of reduced energy consumption and improved energy efficiencies, both of which induce GHG emissions reductions and operating cost savings; the economic benefits of carbon management may well extend to airlines and tenants as a result of active stakeholder engagement. Capital investment informed

by a strategic carbon management plan could sway top airport decision-makers to pick improvement projects with long-term environmental and social benefits in the immediate vicinity and the region (e.g., think light rail access and connectivity with the greater metro area). Last, but not least, the emission reduction claims of the ACA Program are highly credible because every ton registered in the program has been vetted by an independent third-party or verifier. Actually, it is through the verification process that all stakeholders (i.e., airports, ACA administrators, investors, customers, and so on) have assurance that climate action is real, objective, and verifiable. em

## References

1. The Airport Carbon Accreditation Program. See <http://www.airportcarbonaccreditation.org/index.php> (accessed October 29, 2015).
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3. CDP. See <https://www.cdp.net> (accessed October 29, 2015).
4. *Annual Report 2014–2015*; Airport Carbon Accreditation, August 2015, pp. 4-24.
5. *Annual Report 2014–2015*; Airport Carbon Accreditation, August 2015, p. 28.
6. Facility Level Information on Greenhouse Gases Tool; U.S. Environmental Protection Agency. See <http://ghgdata.epa.gov/ghgp/main.do> (accessed October 29, 2015).
7. *The GHG Protocol: A Corporate Accounting and Reporting Standard*; Revised Edition; World Business Council for Sustainable Development, World Resources Institute, 2004; pp. 24-33.
8. *Airport Carbon Accreditation Guidance Document*; Issue 9 Vol. 2: August 2015; WSP, Parsons Brinckerhoff, London, p. 7.