



Chair and Co-Chair Report on Sustainability

December 2023

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Chair & Co-Chair Message

What a whirlwind year. Where did it go? As they say, "time flies when you work at an airport"!

It has been a great year for the Sustainability Working Group. We focused more on joint working group sessions, including the Energy Task Force, and the Air Quality and Waste Management Working Groups. We also have been participating in talks around the ESG Reporting and Metrics Task Group, which was a focus and standout session at the ACI-NA Annual Conference in Long Beach.

At Airports@Work, our members collaborated with the Air Quality Working Group on a session that provided an overview of ACRP project 02-82, Developing a Roadmap to Achieve Zero Emissions at Airports, covered case studies with experience and insights from airports on how they put carbon neutrality commitments into place, and ended with an airport planning for net zero roundtable discussion.

On the topic of electrification, our working group partook in sessions at both Airports@Work and ACI-NA Annual, offering up information on the demand forecasts and implications related to electrifying our airports.

We happily collaborated with the Waste Management and Air Quality Working Groups in the form of webinars and conference sessions on how to effectively "nudge" airport stakeholders to achieve sustainability goals. We also had multiple members participate in the agenda and presentation development for the Airport Electricity Management Symposium in Denver (December 5–7, 2023).

We wrapped up the year with a working group discussion on how airports can think about integrating sustainability into design and construction standards.

Thanks again for your collective participation and commitment to airport sustainability. Happy holidays and Happy New Year!



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FEDERAL AVIATION ADMINISTRATION UPDATE

What's Happening at Headquarters



Contributed By Alan Strasser, Edvige Mbakoup, and Michael Lamprecht, Federal Aviation Administration (FAA), Office of Airports, APP-420

Notice of Funding Opportunity

Contributed by Alan Strasser

Please note that the Federal Aviation Administration (FAA) will be issuing a Notice of Funding Opportunity (NOFO) for supplemental funding authorized by Congress in 2023. Release of the NOFO will occur later this year. Funding in the NOFO can be used to support environmental projects that will improve sustainability; reduce emissions (Voluntary Airport Low Emission [VALE] and Zero Emission Vehicle [ZEV]); improve energy efficiency; and address energy supply, redundancy, and microgrids. Additional goals for these grants include funding infrastructure to address resilience from multiple hazards, sustainable aviation fuel (SAF), and VALE grants at a commercial service airport that is in an attainment area under the Clean Air Act. Instructions on applying for grants will be provided in the NOFO.

The Fiscal Year (FY) 2022 NOFO included applications for all types of projects, including typical safety projects. Of the total received, the \$1.3 billion in eligible applications in the Infrastructure, Noise, VALE, ZEV, and "Environmental" categories comprised 79 projects selected for \$267.7 million. Nearly half of the final awards were allocated to environmental and VALE/ZEV, as noted in the table below.

FY 2022 NOFO Summary

CATEGORY	Number of Projects	Amount (dollars, millions)	Percentage of Total Funding
Energy Efficiency/Energy Supply Redundancy and Microgrids/Sustainability (E)	31	\$92	34%
Infrastructure (I)	33	\$140	52%
Noise (N)	1	\$2	0.7%
VALE/ZEV (V/Z)	14	\$34	13%
TOTAL	79	\$268	100%

Airport Sustainability Planning Program

Contributed by Alan Strasser and Edvige Mbakoup

Authorized under 49 U.S.C. 47102(5), Sustainability Master Plans and Airport Sustainability Plans use baseline assessments of environmental resources and community outreach to identify sustainability objectives that will reduce environmental impacts, realize economic benefits, and improve community relations. The FAA Office of Airports (ARP) announced in its FY 2022 NOFO that its Sustainability grants program can include the consideration of infrastructure resiliency (e.g., extreme weather and climate), including impacts to energy, drainage, and pavement systems, in addition to traditional sustainability topics, such as renewable energy and water quality. FAA awarded some grants for this program, as noted herein.



Michael Lamprecht
FAA



Edvige Mbakoup
FAA



Alan Strasser
FAA

For more information, please visit:
<https://www.faa.gov/airports/environmental/sustainability/>

Related to the ability of airports to analyze their climate and extreme weather risks under Sustainability Planning grants, FAA recently completed its second year of resilience research, partnering with the Department of Transportation (DOT) Volpe Center. A major component of this effort is the development of a tool called the **Airport Resiliency Analysis Framework (ARAF)** to assist airports in identifying severe weather and climate threats and help make them more resilient through development of vulnerability assessments. FAA is collaborating on ARAF development with the following airports, including IND, PHL, SAN, SEA, SLC, and TPA. FAA may collaborate with additional airports to test and critique the tool before its launch.

Additional information about FAA's resilience program is available at: <https://www.faa.gov/airports/environmental/resiliency>

An article that contains both the FAA and sponsor perspective is available at: <https://medium.com/faa/with-flood-waters-rising-faa-seeks-to-help-airports-keep-afloat-5e3bcc2e77d6>

Voluntary Airport Low Emission (VALE) and Zero Emission Vehicle (ZEV) Program Update

Contributed by Michael Lamprecht and Edvige Mbakoup

As mentioned previously, there is another NOFO opportunity applicable to VALE and ZEV projects. In addition, applications for the VALE and ZEV grants from the environmental set-aside program were due November 1. The environmental set-aside program funding is available every year.

The VALE and ZEV programs have continued to gain popularity in FY 2023. The following statistics apply to the annual AIP VALE and ZEV programs. These two programs received 45 project applications (11 VALE and 34 ZEV applications) with funding requests exceeding \$98 million. FAA issued over \$33 million for 25 grants for projects valued at almost \$42 million. As you can, see these grants are becoming more popular, especially the ZEV grants that had 34 applications alone.

The 5 VALE and 20 ZEV grants can be found on the VALE and ZEV webpages:

VALE: <https://www.faa.gov/airports/environmental/vale>

ZEV: https://www.faa.gov/airports/environmental/zero_emissions_vehicles

The FAA continues to stress that applications must be submitted by November 1 of each year. Consequently, only applications submitted on time will be considered. Airports are not limited in size or number of projects. However, priority consideration is given to applicants achieving the greatest air quality benefits measured by the amount of emissions reduced per dollar of funds expended under the program. Because of program requirements, emission reductions from the VALE program are closely tracked.

As of September 2023, the 141 VALE grant projects located at 58 airports are estimated to reduce ozone emissions by 1,768 tons per year for the next 5 years. This is equivalent to removing 98,700 cars and trucks off the road each year.

Finally, FAA's Michael Lamprecht will be retiring at the end of 2023, and Edvige Mbakoup will be the new program manager for FY 2024. Questions can still be provided via the links to the web pages listed above.

Michael, the Sustainability Working Group thanks you for your contributions to the newsletter over the years. Happy retirement!

TRANSPORTATION RESEARCH BOARD

Airport Cooperative Research Program (ACRP) Project Update

Contributed by Joe Navarrete, Transportation Research Board (TRB) ACRP

Share How You Are Using ACRP Products!

Have you used an ACRP product? Do you want to help your fellow industry practitioners? Tell ACRP about your experience with implementing ACRP research results using the ACRP Impacts on Practice form (available [here](#)). Our team will work with you to craft an ACRP Impacts on Practice publication!



Joe Navarrete
TRB

Oversight Committee Selects New Projects

The ACRP Oversight Committee met in late July to review the 82 problem statements submitted earlier this spring and selected 19 as new projects. Requests for proposals to conduct the research for these new projects are being posted through the rest of the year. Those related to sustainability are listed below.

ACRP PROJECT	TITLE
03-75	Preparing for Hydrogen-Powered Aircraft and Other Vehicles at Airports
03-77	Understanding the Impact of Climate Change on Forecasting Future Airport Activity Levels
07-27	Seismic Resiliency for Horizontal Infrastructure at Airports
11-08/24-02	ACRP Insight Event: Improving Extreme Weather Resiliency of Airport Infrastructure
11-08/24-03	ACRP Insight Event: Airport Energy Resiliency

Sustainability-Related Projects Underway

Several ongoing projects touch on sustainability-related topics; they include those listed below.

ACRP PROJECT	TITLE
02-90	Development of Airport Construction Emission Inventory Tool (ACEIT), Version 2.0
02-92	General Aviation Airports and Resilience Complete Toolkits for Self-Directed Planning
02-93	Guidebook for PFAS Management at Airports
02-95	Update ACRP Report 135: Understanding Airport Air Quality and Public Health Studies Related to Airports
02-100	Carbon Removal and Reduction to Support Airport Net-Zero Goals
02-103	Scan of Technologies to Remove Residual PFAS from Airport Firefighting Equipment
03-73	Best Practices in Transitioning to Lead-Free AvGas
04-25	Airports and Pandemics—Reducing the Spread of Communicable Diseases
04-32	Guidelines for Using Existing and Emerging Technologies to Identify and Mitigate Human Trafficking in Airports
06-09	Quantifying and Understanding Women and Minority Airport Employee Populations to Track Progress

Recently Published Sustainability-Related ACRP Products

Several studies providing guidelines and recommended practices for airport sustainability-related issues have been completed recently; these are listed below.

To support safe operations, airport operators and tenants apply a variety of deicing and anti-icing chemicals (collectively, “deicers”) to aircraft and airport paved surfaces.



ACRP Research Report 257: Guide for Treatment of Airport Stormwater Containing Deicers - Update

This is a comprehensive guide for selecting appropriate technologies to treat stormwater containing deicers at airports.

- Appendix B: Deicer Treatment Technology Fact Sheets (available [here](#))
- Appendix C: Airport Deicer Treatment System Summaries (available [here](#))
- Appendix D: Technical Memo—Considerations for discharge fees (available [here](#))

Appendices B and C are both updates to fact sheets previously published in 2013 as part of ACRP Report 99: Guidance for Treatment of Airport Stormwater Containing Deicers.

Airports face increasing regulatory and technical challenges for addressing per- and polyfluoroalkyl substances (PFAS) found on or near their facilities. Sources of PFAS may be attributable to activities such as the use of aqueous film forming foam during aircraft rescue and firefighting activities or from airport neighbors who use products that contain PFAS.



ACRP Research Report 255: PFAS Source Differentiation Guide for Airports

This report provides recommended practices for determining the source of PFAS detected in soil and water on or near an airport.

Supplemental to the report is an Excel tool (review disclaimer [here](#)) that can be customized by the user to assist with PFAS source differentiation approaches.

People experiencing homelessness have been increasingly seeking shelter in airports. Homelessness at airports is a complex issue with no easy solutions. Airports and local communities need to work together to provide support for people experiencing homelessness, while also ensuring the safety and security of airport operations.



ACRP Research Report 254: Strategies to Address Homelessness at Airports

Provides airports and stakeholders with resources and suggested practices to respond, in a comprehensive and humane manner, to people experiencing homelessness.

Recently Published Sustainability-Related ACRP Products (Continued)



During the COVID-19 pandemic, airports faced challenges such as implementing health protocols, accessing trusted information, accommodating social distancing, and using effective technologies to control the spread of the virus. Public health officials interviewed for this report acknowledged a potential conflict between sustaining airport operations and promoting travel on the one hand and the need to implement certain health protocols to prevent disease transmission on the other. They also noted that public health governance structures vary from one state to the next, which can affect how COVID-19 response efforts are carried out.

ACRP Research Report 253: Airport Lessons Learned from the COVID-19 Pandemic

This is intended as a resource for continued responses to COVID-19 and future communicable disease outbreaks. The report summarizes 124 interviews with representatives from 127 airports of all sizes and regions.



The threat of wildlife strikes with aircraft is increasing due to larger bird populations and quieter aircraft. The challenge of managing this risk has prompted the development of Wildlife Hazard Management Plans (WHMPs) by airport operators, which are required to be reviewed regularly. However, there is little guidance available to assess the effectiveness of these plans over time.

ACRP Research Report 250: Program Evaluation Report Card Tool for Wildlife Hazard Management Plans - User Guide

Designed to assess the effectiveness of the plans to reduce the risk of wildlife strikes with aircraft over time.

Supplemental to the report is a PERC Tool (available [here](#)) designed to determine the overall effectiveness of airport WHMPs.



Turf and vegetation management practices differ at airports because of each airport's unique terrain, geography, and vegetation. Although there is some guidance from the Federal Aviation Administration on airside applications for artificial turf, information on the means, methods, techniques, and practices airports use to manage airfield turf and vegetation is sparse.

ACRP Synthesis 128: Airfield Turf and Vegetation Management Practices

This report documents airfield practices for turf and vegetation management given the various constraints of staffing, equipment, safety, funding, climate, and regulations.



Learn more

Airport Cooperative Research Program (ACRP) Publications

<https://www.trb.org/Publications/PubsACRPPublications>

Recently Published Sustainability-Related ACRP Products (Continued)



Emissions from surface traffic can be a substantial portion of carbon emissions at an airport.

ACRP Synthesis 127: Airport Programs That Reduce Landside Vehicle Carbon Emissions

The information in this report provides the use of airport programs or initiatives that reduce carbon emissions from vehicles accessing the airport.



Human trafficking is a critical public concern. Tens of millions of global victims are moved across international borders and between states using various forms of transportation. Traffickers may transport victims through airports, or victims may be traveling of their own accord, unaware that the job opportunity at the end of their journey is not legitimate.

ACRP Research Report 249: Developing an Airport Program to Address Human Trafficking - A Guide

This guide provides a comprehensive, yet scalable, process to help airports identify and respond to possible human trafficking activity at their facilities. Supplemental to the report are Appendices (available [here](#)) and a Toolkit (available [here](#)) that offer a series of resources and references that airports can use to develop a tailored program.



Due to the COVID-19 pandemic, airport operators had to develop strategies that maintained operations while ensuring employee safety and public health. Though not all airport-related tasks can be performed from remote worksites, many airports identified tasks that could be performed remotely.

ACRP Synthesis 126: Impacts of COVID-19 on Airport Work Models and Strategies

This report provides information on those airports that experimented in remote work, provides options for airports that did not participate in remote work, and identifies emerging trends.



Environmental, social, and governance (ESG) reporting is the term used for a corporate disclosure framework that focuses on a reporting organization's risks and means of mitigating issues with respect to ESG matters. While sustainability is a familiar concept to US airports, ESG reporting is a new and rapidly evolving trend within the airport industry.

ACRP Web-Only Document 58: How New Corporate Environmental Standards Will Impact Airports

This web-only document provides airport sponsors, including airport executive leadership, financial, legal, environmental, sustainability, communications, and public engagement professionals, with foundational knowledge on ESG reporting.



Don't miss the upcoming, in-person TRB Annual Meeting – January 7-11, 2024, in Washington, DC!



For more information, visit:
[https://www.trb.org/
AnnualMeeting/AnnualMeeting](https://www.trb.org/AnnualMeeting/AnnualMeeting)

ACI-NA ENVIRONMENTAL AFFAIRS COMMITTEE

Update

Contributed by Melinda Pagliarello, Airports Council International – North America (ACI-NA)



Melinda Pagliarello
ACI-NA

Updates from ACI-NA Environmental Affairs Committee

Thanks to the work and expertise of members, the Environmental Affairs Committee continues to lead

on a number of topics important to everybody who works for and with airports. Many of those efforts are highlighted in articles in this newsletter. Other recent highlights include:

Providing airport viewpoints and knowledge to regulators via response to Federal Register notices, including:

- FAA's Review of the Civil Aviation Noise Policy
- National Environmental Policy Act Implementing Regulations Revisions

In-person workshops and conferences including

- Airports@Work
- ACI-NA Annual Conference
- ACI-NA/AAAE Noise Conference
- ACI-NA Airport Electricity Management Symposium

PFAS work:

- Working with FAA on airport needs related to transitioning from AFFF to F3
- Meeting with Congress to educate staff on airport needs related to both F transition, as well as CERCLA liability protection
- Sharing information with members on AFFF management practices

Selecting and honoring the **2023 Environmental Achievement Award winners**

ACI-NA 2023 Environmental Achievement Awards Winners

A highlight of the Environmental Affairs calendar is recognizing the hard work and achievements of ACI-NA members by promoting awareness more broadly within the airport community, the general public, and regulators of the many notable and innovative efforts being undertaken by environmental professionals at airports. The 2023 award recipients are Denver International Airport, Los Angeles World Airports, Jackson Hole Airport, San Diego County Regional Airport Authority, and Victoria Airport Authority.

ACI-NA is proud to recognize this year's Environmental Achievement Award winners as leaders that have gone above and beyond in their commitment to protecting the environment while serving their passengers and communities.



The innovative and outstanding work of these honorees is exemplary, and we look forward to continued progress as the industry continues efforts to minimize its environmental footprint and maximize its positive impact on the planet and society as a whole."

Kevin M. Burke

ACI-NA President and CEO

ACI-NA annually awards up to five awards recognizing outstanding achievement in the categories of

- Environmental Management
- Outreach, Education, and Community Involvement
- Innovation
- Mitigation
- Environmental Improvement with Limited Resources

Winners in each category were selected by a panel of judges who reviewed the project’s environmental benefits, innovation, effective implementation, widespread applicability, and cost-effectiveness. With 13 submissions to assess this year, ACI-NA particularly wishes to thank this year’s judges for their dedicated efforts in selecting the winners.

2023 Judges

Alan Strasser, Environmental Protection Specialist at Federal Aviation Administration
Marie-Christine Jacques, Environmental Policy Advisor, Transport Canada
Paul Bowers, Publisher, Airport Improvement Magazine

About the Winners



Environmental Management Award

Category: Denver International Airport (DEN) was chosen as the category winner for its “Low-Carbon, Cost-

Effective, Reliable, and Resilient” Energy Projects. These projects encompassed initiatives in green building, energy efficiency, solar power, and battery storage. They were strategically timed to align with the airport’s expansion and were seamlessly integrated to showcase substantial and long-lasting environmental advantages. Moreover, these endeavors demonstrated a high level of innovation, efficient execution, broad applicability, and cost-effectiveness. The judges were impressed by the scale of DEN’s work to reduce carbon, reflected by the large number of projects in the program, as well as the volume of expected quantifiable benefits. They also made a point of mentioning that DEN’s extensive program offers a number of models from which other airports might be able to draw inspiration.



Outreach, Education, and Community Involvement Award

Category: Los Angeles World Airports (LAWA) “Noise Portal” won in this category. LAWA

operates two airports, and both are located within densely populated areas and face similar challenges with communities—exposure to aircraft noise and operation. Keeping with its continued commitment to address noise concerns, LAWA developed interactive, data and multimedia-driven Noise Portals for LAX and VNY to provide comprehensive neighborhood-specific information, allowing concerned community members to easily understand aircraft operations/activities in their communities and learn of the noise abatement programs and actions taken by LAWA to address their noise concerns. The judges were impressed with the positive response from the communities for LAWA’s Noise Portal, including that the local Noise Roundtables submitted letters of support for the project’s award application.



Mitigation Award Category: The San Diego County Regional Airport Authority (SAN) received recognition for its initiative titled “Airside Renewable Diesel at SAN.” In March of 2023, the Airport Authority facilitated the use of renewable diesel for all diesel-powered airside (non-road) vehicles and equipment, such as baggage tugs, belt loaders, and firefighting vehicles. The switch to renewable diesel can reduce emissions by up to 75 percent or more compared to petroleum diesel. CleanTech San Diego, a member-based business organization noted the airside renewable fuel switch initiative as a key milestone in the region’s improvement of air quality via particulate and greenhouse gas emissions reductions. The judges praised SAN’s dedication to reducing vehicle emissions, and appreciated this as a specific step that SAN has successfully completed during the interim period until electricity technologies may become more available.



Innovation Award

Category: Jackson Hole Airport (JAC) was selected for this award for its "Special Project," which entailed installation of slot

drains to capture 100 percent of runoff. The judges appreciated JAC's dedication to sustainability in the work to restore the runway and noted its slot drains as showing particular commitment to sustainability and innovation.



Environmental Improvement

with Limited Resources: Victoria Airport Authority (VAA) was selected for its "YYJ Pollinator Garden" project. The YYJ Pollinator

Garden transformed a portion of an agricultural field into a 1,100 sq m (12,380 sq ft) Pollinator Garden, supporting restoration of a Garry oak meadow ecosystem. This project added 2,000 native plants and 325,200 native seeds to the space, which was constructed with limited resources following the global pandemic. This airport-led initiative showcases how aviation facilities (or any landowner) can positively contribute to biodiversity conservation. The judges particularly noted and complimented the VAA's outreach and cooperation with the local members of the WSÁNEĆ First Nations.



Honorable Mention:

Environmental Management:

Portland International Airport / Port of Portland (PDX) was selected for honorable mention by

the judges for their "Concourse E Extension." Through this project, PDX aimed to improve passenger flow while prioritizing sustainable design and environmental impact. This extension of Concourse E added 830 feet, seven gates, and various amenities for the public and workers, all while ensuring a positive passenger experience remained a top priority. The design incorporated inventive daylighting techniques to notably decrease energy consumption. Furthermore, low-flow fixtures and native landscaping were employed to minimize water usage. Notably, the project achieved a 99 percent recycling rate for construction waste and utilized interior finishes made from locally sourced, recycled, and renewable materials. The judges were particularly impressed by PDX's dedication to sustainability in the Concourse E extension, as well as achieving LEED Gold.

ACI-NA Environmental Affairs Committee Award for Outstanding Individual Contribution and Leadership:

Kane Carpenter, Environmental Division Manager, Austin Bergstrom International Airport (AUS). During his tenure as NEPA Working Group chair, Kane provided great insight into the challenges of preparing NEPA documentation, provided concrete examples of those challenges, and solicited input from all involved in the working group. As a result of Kane's leadership, the working group became collaborative and focused on lessons learned not only from Kane's experiences but from other NEPA practitioners. Kane helped turn the bi-annual Airport Planning and NEPA Workshop into less of a "lecture" format and into more of a "workshop participation" format. Kane was also instrumental in the preparation of letters from ACI-NA to the Council on Environmental Quality (CEQ) regarding proposed revisions to NEPA. His positive attitude, leadership, and willingness to listen to other points of view really propelled the NEPA Working Group into a cohesive entity that provides knowledge and encourages participation for all things related to NEPA at an airport.

AIRPORT ELECTRICITY MANAGEMENT

What Should Airports Be Thinking About?

Contributed by Bridget Rief, Metropolitan Airports Commission (MAC)

AIRPORT ELECTRIFICATION

IS YOUR AIRPORT **PLUGGED INTO** THE CONVERSATION?

ARE YOU AWARE OF THE **SHOCKING TRUTH?**

ARE YOU **SURCHARGING** YOUR DEVELOPMENT PLANS?

Pick any pun or witticism. There are many of them. But the bottom line is that airports should be planning for future energy needs now.

What should airports be thinking about? It is easy to envision grand plans for new terminal buildings with 100 percent electrification. Or set goals to be net zero by 2050, or even sooner. But what does that mean from an infrastructure standpoint? And can it be achieved at your facility?



Bridget Rief
MAC

I am a civil engineer by trade. Decades ago, at the University of Minnesota, I was required to take one electrical engineering course to get my degree. One. Honestly, I couldn't have handled more than that. After that class, I didn't think much about anything electrical. For many years I was living blissfully in the civil engineering world—playing in the dirt, as my friends would say, until we had a major electrical outage at Minneapolis-St. Paul International Airport (MSP). In my simple terms, the breaker switch didn't switch. It broke, taking down four concourses with it. Via spontaneous on-the-job-training, I lived through a crash course in terminal electrical infrastructure and all the upgrades and separations needed to meet current expectations.

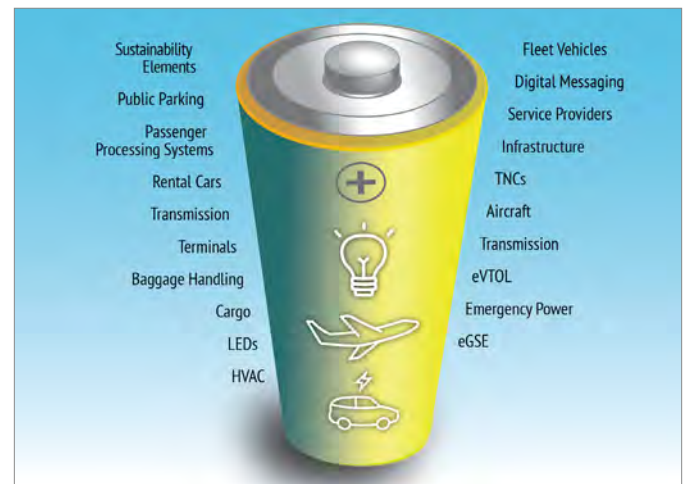
Call it resiliency, safeguarding, or plain old solid capital planning, in response to events like ours and others around the country, airports are investing millions to have redundant primary power feeds and duplicate emergency power feeds. (Word to the wise—also ensure these redundant systems don't live together in one location.)

Fifteen years later, our airport's electrical infrastructure is infinitely better. Projects include needed upgrades and expansions. We are in a good place. But we still need more—a lot more.

Airport operations took a huge hit during COVID-19, but I would argue the airport capital programs are feeling it

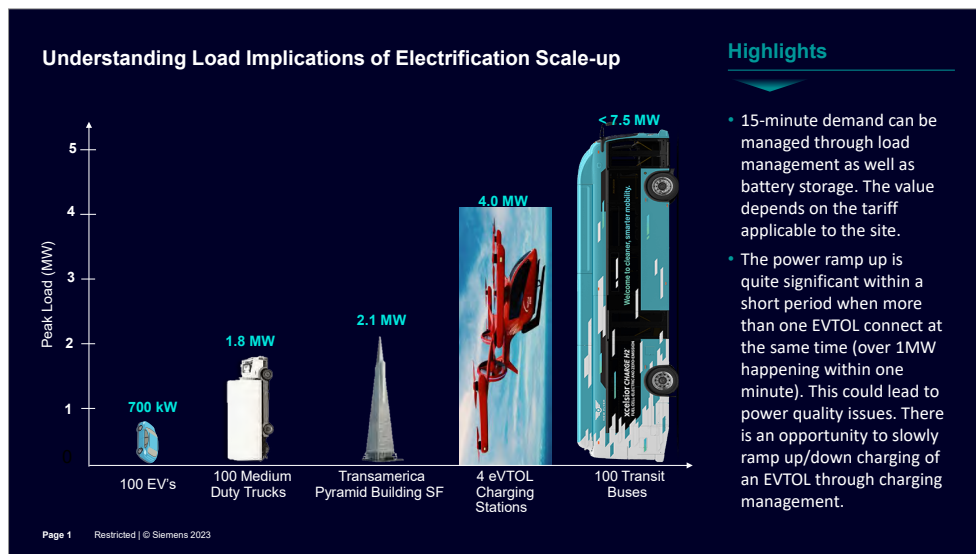
most now. While airports continue to advance redundancy with enhanced protection to existing electrical systems, they are dealing with significant delays in equipment lead times (up to 62 weeks in some cases) and ongoing variability in pricing and inflation. Between postponed development programs, deferred maintenance, and unpredictable availability and pricing, getting projects done and prioritizing limited funds is more difficult than ever.

Now, let's pile on the concept of electrifying everything at airports! The pressures to reduce emissions, bring on new electrical elements, and provide charging for our airport partners are significantly stressing the system.



Some electrification needs have been implemented for years. Providing EV chargers in public parking spaces, for example, is likely on every airport's checklist. Charging for electric ground service equipment (eGSE) is also nothing new. PC Air units (provide heating and cooling for aircraft in lieu of running engines) are now sharing passenger boarding bridge space with eGSE chargers—low hanging fruit, as they say.

Staying with landside facilities for a moment, what is your airport's plan for providing electrical infrastructure for the rental car companies? How fast are you planning to install EV chargers in public parking garages? Does your airport employ electric buses? How soon can you support the charging needs for electric aircraft? Katy Glynn, account executive of Smart Buildings – Energy Performance Services with Siemens Industry, Inc., has been telling us at ACI conferences all year to plan for more power needs and position your airport to, at a minimum, understand the timelines needed for expanded infrastructure. She shared the Understanding Load Implications of Electrification Scale-Up graphic image, which identifies peak load needs for different electric transportation. But note, Katy has also wisely indicated that electricity is not the only answer. Like emissions reduction solutions, success may be found in a portfolio of sources.



Used with permission from Siemens, 2023.

Transportation is not the only upscaling factor. Have you completed a study for what it takes to electrify your terminal boilers and chillers? At our airport, we have been studying it for months. Living in a cold weather climate, we see many more heating days than cooling

days. Unfortunately for us, it takes more energy to heat spaces than cool them. Our Terminal 1 energy management center currently uses about 4 megawatts (MW) per year in electricity. If we provided a one-for-one replacement of the steam boilers to electric versions for just the one terminal, that alone would require 48 MW per year!

Instead of taking that on, we are looking to electrify as much of the heating elements of the system as possible as part of a hybrid solution. By installing heat pumps that can simultaneously provide heating and cooling, we will significantly reduce fuel burn by hundreds of thousands of therms (1 therm = 100 cubic feet of natural gas) and the associated utility bills. The overall hybrid plan will require approximately 19 MW of electricity per year. That amount equates to about 70 percent of what the entire MSP campus uses today.

Another question to ask is how green is your electricity? Few airports are lucky enough to have 100 percent green electricity coming into their facility. Utility companies, mandated to achieve green energy, are also assessing plans for how to expand service and transmission facilities. Your airport's utility provider should be your best friend. Partner with them to determine best possible outcomes, programs available,

the completion and review of needs assessments, and don't forget the potential for rebates. Use your stakeholders to gain knowledge and data on their needs and future plans. It becomes a scary world for airports that operate 24/7 if you have to start allocating power to different portions of the airport or deal with rolling blackouts.

Today's airports are rapidly moving towards lower emissions and more power needs. Airlines, too, are setting goals and making

major business decisions in the realm of sustainability. Pace is driving electrification demand well ahead of infrastructure capabilities. ACI-NA dedicated an entire conference to the topic in early December. Stay plugged in to the conversation!

SUSTAINABILITY WORKING GROUP COLLABORATIONS

with the Air Quality and Waste Management Working Groups

Influencing Behavior Change for Sustainability

Contributed by Morgan Turner, Airport Zero Waste Consulting

Behavior change is the foundation to achieving sustainability. To reduce water use, reduce energy and resource consumption, protect air and water, and reduce waste, airports must influence passengers, tenants, partners, and stakeholders to adopt sustainable behaviors and choices. To date, airports in the United States have primarily relied on information and education campaigns to encourage sustainable actions; however, while information can create awareness, numerous social studies have proven that information alone does not address barriers to sustainable behavior.

To advance airports' sustainability efforts, the ACI-NA Environmental Committee's Sustainability Working Group, Air Quality Working Group, and Waste Management Working Group have kicked off an ongoing series of conversations about behavior change and sustainability.

In July, the Working Groups hosted a presentation by Jennifer Tabanico, a behavior-change practitioner and researcher specializing in Community-Based Social Marketing (CBSM). Tabanico summarized the research around education-only efforts, typical models and frameworks for influencing behavior, and alternative strategies. She described the CBSM framework in detail, including problem definition, situation analysis, behavior identification and prioritization, audience research and segmentation, barrier identification, strategy design, strategy pilot testing, implementation, measurement, evaluation, and maintenance. Tabanico answered questions from the working group audience relating to application of behavior change strategies in an airport environment. One key takeaway from this session was that airport sustainability professionals do not have to convince passengers, tenants, partners, and other stakeholders to care about sustainability issues in order to induce more sustainable choices and actions.

At the ACI-NA Annual Conference in Long Beach, California, the Working Groups facilitated a panel

workshop at which airport representatives applied the CBSM framework to three sustainability topics (rideshare driver conversion to electric vehicles, employee transportation, and passenger use of The Good Traveler carbon offset program). The panel audience served as a mock focus group for barrier identification and provided feedback on potential strategies to address these barriers.

Looking ahead, an ACRP problem statement is in development to propose research on barriers to sustainability behaviors in the air travel process and airport environment. The Working Groups are also planning an upcoming second webinar to feature at least two airports that have implemented elements of CBSM in their sustainability programs. We look forward to continuing discussions on how to leverage behavior change psychology to improve and expand airports' sustainability performance.



Morgan Turner
Airport Zero Waste
Consulting

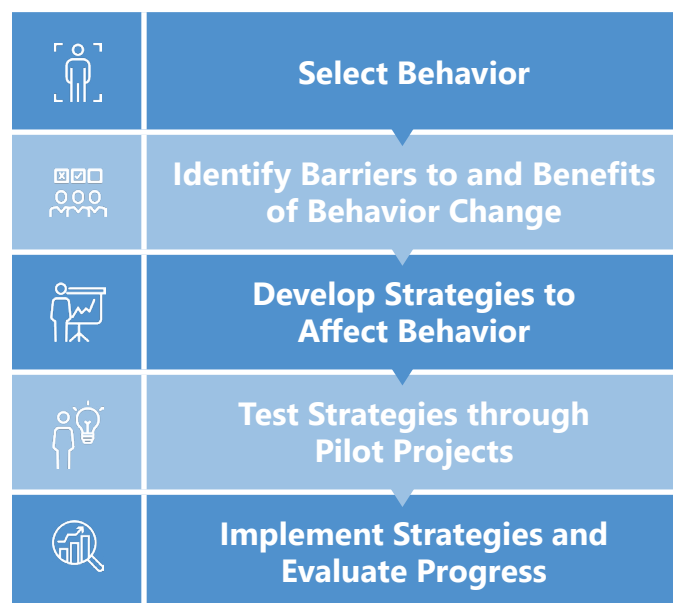


IMAGE SOURCE: Ricondo & Associates, Inc., November 2023

INSTITUTE FOR SUSTAINABLE INFRASTRUCTURE (ISI) ENVISION Update

Contributed by Carly Shannon, Linx Strategies, and Kari Hewitt, Hewitt Sustainability Strategies, LLC



Carly Shannon, Linx Strategies



Kari Hewitt, Hewitt Sustainability Strategies, LLC

2023 was a big year for airports interested in, or already applying, the Institute for Sustainable Infrastructure’s (ISI) Envision framework, including the launch of a standing working group to learn, share, and network. After an initial workshop in August 2022 (recap included in the Winter 2022 Sustainability Working Group newsletter) and an inaugural meeting in December of that year, the group met three additional times—in April, August, and October 2023.

We covered a range of topics, selected with participant input, including:

1.	User-developed tools to enable performance tracking
2.	Support services available through ISI like their preliminary assessments and Applicants Course
3.	Alignment with industry activities and programs including ACI’s Airport Carbon Accreditation and the FAA’s ongoing project to create an Airport Resilience Analysis Framework (ARAF)
4.	LaGuardia Airport Terminal B’s Envision Post Construction Review (see image showing key challenges along with helpful solutions)
5.	Indianapolis International Airport’s use of in-situ carbon dioxide mineralization in its Envision Platinum Runway 5R-23L and Taxiway D Strengthening and Capacity Enhancement Project and approach to calculating and reducing embodied carbon

LaGuardia Airport Terminal B’s Envision Post-Construction Review – Challenges and Solutions

Challenges	Solutions
Post-Construction Review during Project Close-Out	<ul style="list-style-type: none"> Integrated Envision into close-out requirements Maintained a core sustainability group Reorganized responsibilities as staffing changed
Implementation of Plans and Policies	<ul style="list-style-type: none"> Worked with Airport Facilities to ensure policies given to tenants were complied with Envision targets (e.g., waste management, maintenance, and renovations)
Document Organization	<ul style="list-style-type: none"> Centralized documents across all project areas (e.g., inspections, reports, training photos) Maintained a list of the latest versions of reports and design packages

During these meetings, participants share their successes and challenges with implementing Envision and sustainability practices in general and learn from one another’s best practices.

In tandem with the working group activities and with its support, we were excited to publish the first-ever airport-focused resource to help the sector—the **Envision & Airports: Insights, Resources, & Opportunities (AIRO) Guide**. We hope the AIRO Guide will benefit staff and consultants alike who could use a little help integrating sustainability and Envision into projects. This will be a living document, so if you have feedback, reach out to us! (See contact information at the end of this article.)



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2023 also featured a number of conference sessions and webinars on airport projects that have achieved Envision verification. One session was held during ISI's free virtual conference in early November, titled "Integrating Sustainability in Our Airports." The session was led by:

Melissa Targett, *Sustainable Design Program Manager*, Port Authority of New York and New Jersey (our new working group chair); and

Erin Cooke, *Sustainability + Environmental Policy Director*, San Francisco International Airport (SFO) (and ISI Board member).

We're looking forward to even more collaboration within the aviation industry in 2024 and beyond!

What Else is Happening?

The American Society of Civil Engineers (ASCE) released its Standard Practice for Sustainable Infrastructure, ASCE/COS 73-23, that is harmonized with Envision and compliments the rating system by providing policy-level guidance for owners. ISI was a key stakeholder in its development. Standard Practice for Sustainable Infrastructure is available in the Books section of the ASCE library [here](#).



How Can You Get Involved?

Interested in joining the working group or have feedback on the Envision AIRO Guide? Reach out to **Carly Shannon** at Carly@LinxStrat.com or **Kari Hewitt** at Kari@HewittSustainability.com.

CELEBRATING OUR SUCCESSES

Incorporating Sustainability into Design and Construction Standards

Contributed by Zach Frese, Sacramento County Department of Airports

During a recent meeting of ACI-NA's Sustainability Working Group, member airports shared their experiences with establishing standards, policies, and procedures that integrate sustainability principles into airport development project processes. We heard from two speakers from airports with robust sustainability programs: Eric Caplan from Tampa International Airport, and Alex Porteshawver from Seattle-Tacoma International Airport.



Tampa International Airport

Sustainability is emphasized from the beginning of a project at Tampa International Airport, allowing for the integration of sustainable considerations into the Capital Improvement Program (CIP) and realistic budgeting for sustainability measures. The Hillsborough County Aviation Authority (the Authority) follows a documented process outlined in its Development Program Manual for project planning and implementation. The Authority's Sustainable Management Plan, completed in 2014, guided the formulation of 22 sustainability goals, which formed the foundation for their Sustainable Design Criteria Manual (SDCM). This manual serves as a communication tool,

outlining the Authority's expectations for integrating green building measures into project planning, design, and construction. It encourages creativity, allowing project design teams to incorporate relevant and appropriate green building strategies that align with the Authority's sustainability priorities and goals.



Zach Frese
Sacramento
County
Department of
Airports

The SDCM does not impose strict sustainability measures but instead provides guidance and potential design strategies. It supplements existing design guidance and code requirements set forth by various agencies, including the State of Florida, Hillsborough County, the City of Tampa, and the Authority. The manual aims to support the achievement of the Authority's sustainability goals, with individual projects highlighting relevant sustainability goals, challenges faced during implementation, costs associated with specific actions, and conflicts identified in the planning and design process.

The SDCM checklist, originally based on LEED v1, is seamlessly integrated into the Authority's development program, ensuring sustainability is a fundamental part of budgeting, planning, design, and implementation, rather than an afterthought. The checklist includes

Sustainability in the Authority's Project Planning Process



SOURCE: Hillsborough County Aviation Authority

specific criteria that are organized on sustainable design fact sheets. A Project Management Plan (PMP) Team is established for each project, responsible for defining specific sustainability expectations and objectives. During the pre-design phase, the team assesses the applicability of SDCM criteria to the project, documenting the assessment and defining targeted Design Evaluation Points. This documentation becomes part of the design record, facilitating communication with the design team and encouraging the incorporation of relevant sustainability practices tailored to the project's nature and scale.

The manual's applicability ensures that all projects, driven by scope, feasibility, benefit, and cost considerations, incorporate sustainability considerations to varying degrees. Though initially designed for Authority projects, the SDCM is available for use by tenants and others involved in on-Airport projects. While there are opportunities to incorporate sustainable practices into construction activities, the manual focuses on establishing a green design process that will ultimately drive green building construction practices. Future versions of the SDCM may include additional criteria specifically related to construction activities, and the comprehensive project records generated will contribute to refining sustainability goals, minimizing barriers, and enhancing stakeholders' understanding of sustainability priorities and achievements.



Seattle-Tacoma International Airport

Aiming to advance its Century Agenda strategy of becoming the greenest and most energy-efficient port in North America, the Port of Seattle Commission established a Sustainable Evaluation Framework (SEF) in 2017. The SEF consists of a set of sustainable design criteria developed to assist the Port in achieving its sustainability goals. While all projects are typically evaluated based on traditional criteria such as return on investment or total cost of ownership, the SEF aims to reduce GHG emissions, protect health and the environment, increase resilience, support local economic development, advance innovation, leverage and develop partnerships, and promote equity.

The Port adopted a Sustainable Evaluation Framework Policy Directive in January of 2020, which requires the application of the SEF to all capital project and key operational decisions. All capital project teams and operational staff integrate sustainable approaches into planning, design, construction, procurement, and other operations consistent with the policy. The Port established a tiered approach for integrating sustainability into projects, focusing on projects that have the greatest opportunities for impact.

The Port's Tiered Approach for Integrating Sustainability into Projects

Tier 1	Smaller, less complex projects that follow Port standards and specifications.
Tier 2	Medium-sized or more complex projects that have opportunities for sustainability benefit are subject to targeted sustainability analyses and strategies. These projects may include analysis of the cost per ton of carbon reduction.
Tier 3	The largest or most complex projects with significant opportunities, which may require a sustainability certification along with other targeted sustainability analyses and strategies, as applicable. These projects may include an analysis of the cost per ton of carbon reduction.

To implement the framework, the Port created a team of experts known as the Sustainable Project Assessment and Review Collaboration (SPARC). SPARC recommends sustainability concepts for projects and encourages innovative strategies to reduce emissions and energy use. The recommendations made by SPARC for a project are documented in a Sustainable Design Approach, which is presented to the Commission along with the request for authorization for design funds. Capital project teams then work with SPARC to develop a Sustainable Design Strategy, including alternatives analyzed during the Sustainable Design Approach phase around the 30 percent design milestone.

The Port tracks sustainability outcomes and reports progress annually, including GHG emission reductions, cost per metric ton of GHG reduced, and other sustainability benefits associated with projects. Progress is reported as Sustainability Scorecards, which provide context for the Commission to evaluate progress on reaching GHG reduction goals.

Recommendations are presented to the Commission for updating and revising construction specifications and standards to reflect advancements in sustainable materials, energy efficiency, and sustainable design approaches, including considerations of total cost of ownership and sustainability costs and benefits.

Sustainability Working Group Webinar Feedback



96% of participants represent an airport that **incorporates sustainability** into design and construction guidelines

Webinar participants identified the challenges that airports face with adopting sustainable design requirements, including:

- Alignment with FAA specifications and requirements
- Executive team and stakeholder buy-in and approvals
- Resistance to change and skepticism
- Budget and schedule concerns
- Applicability to different airport project types
- Changing technologies and lack of agreement on solutions

Webinar participants identified challenges with ongoing implementation of sustainable design requirements, including:

- Lack of authority to implement
- Lack of staff capacity to track and verify implementation
- Insufficient methods to track implementation
- Lack of stamina to maintain implementation focus
- Uncertainty about the timing to update standards
- Changing technologies and lack of agreement on solutions
- Value engineering
- Disinterested architects

Poll responses are paraphrased.

SUSTAINABILITY PROGRAM HIGHLIGHT

SAN Green Concessions Program



Contributed by: Paula Morreale, San Diego County Regional Airport Authority (SDCRAA)



Paula Morreale
SDCRAA

The SAN Green Concessions Program is a voluntary rewards and recognition program to assist concessionaires in implementing sustainable business practices. The program was developed internally by the San Diego County Regional Airport Authority (Airport Authority) and launched in 2017 to evaluate retail and food & beverage concessions at San Diego International Airport (SAN).

The SAN Green Concessions Program evaluates airport concessions that annually demonstrate environmentally sustainable practices, including training employees on sustainable business practices, reducing waste generated and diverting waste from landfills, switching to more sustainable products when possible (e.g., plastic straws to paper straws, plastic bags to paper bags), using eco-friendly cleaning products, reducing energy and water use, and promoting healthy food options for customers.

The certification lasts for 1 year and requires an annual check-in to ensure continued partnership in the program. Certified businesses display a SAN Green Concessions logo at their storefront, are promoted on SAN's website, and are showcased on different social media channels.

The certification lasts for 1 year and requires an annual check-in to ensure continued partnership in the program. Certified businesses display a SAN Green Concessions logo at their storefront, are promoted on SAN's website, and are showcased on different social media channels.

How the program works

Concessionaires interested in certification reach out to Airport Authority staff and schedule a meeting. During this meeting, staff review the SAN Green Concessions checklist and indicate which sustainability measures the concessionaire is implementing. This checklist meeting serves as a conversation starter and helps build relationships between the Airport Authority and the concessionaires.

THE CHECKLIST CONSISTS OF SIX CATEGORIES:

1. Commitment & Awareness
2. Waste Reduction & Diversion
3. Energy
4. Water
5. Air Quality & Emissions
6. Social Responsibility

Each category has a minimum measure to complete, and if the concessionaire reaches 70 percent of successful implementation of the entire checklist, they are certified in the program. Sustainability efforts of newly certified concessions are recognized at the monthly All Concessionaire Meeting. The certified concession is provided with stickers, clings, and in-store advertising to promote the concession as environmentally friendly.

SAN Green Concessions Program Checklist

Sector: Food & Beverage | Retail (circle one)

Concessionaire: _____

Storefront: _____

Date: _____

Number of employees: _____

Annual Participation Requirements

Thank you for participating in the San Diego International Airport's Green Concessions Program for Food & Beverage and Retail concessions. Participation is based on completion of the following requirements. The items below are to be completed in subsequent order:

1. Sign the program pledges.



Progress Since Inception

- 55% of concessions certified in the program
- 12 Food & Beverage and 18 Retail storefronts certified in the program

On an annual basis, Airport Authority staff checks in with the certified concessionaires to recertify and ensure the sustainable business practices are still being implemented.

SAN's Green Concessions Program Highlights

- Reduce energy and water usage.
- Minimize waste produced and divert waste from the landfill.
- Follow proper recycling and composting practices.
- Limit use of single-use plastic items.
- Switch to reusable and environmentally friendly products.
- Use non-toxic cleaning products.
- Train employees and educate passengers on sustainable initiatives.
- Provide and promote healthy food.



Environmental stewardship is a hallmark of our operations at SAN, with our proximity to San Diego Bay, downtown San Diego, and residential communities, we are committed to minimizing our impact on the environment and on our neighbors. We are proud that more than half of the restaurants and retail shops at SAN are certified in our program."

Kimberly J. Becker
President/CEO

San Diego County Regional Airport Authority

For more information

on the SAN Green Concessions program and the full list of certified concessionaires, visit <https://www.san.org/shop-green> or email pmorreal@san.org.



ACI-NA INITIATIVE HIGHLIGHT

ESG Reporting and Metrics Task Group Update

Chris Poinatte, Dallas Fort Worth International Airport (DFW), ESG Reporting and Metrics Task Group Chair

Interviewed by Melinda Pagliarello, Airports Council International – North America (ACI-NA) and Chad Reese, San Diego County Regional Airport Authority (SDCRAA)

Chris, why did you decide it was important to get involved and lead the ACI-NA Reporting and Metrics Task Group?

ESG is becoming important to rating agencies, investors, insurers, airlines, stakeholders, employees, and others. And while most North American airports do not issue ESG reports today, most European airports do. Additionally, organizations with limited North American airport knowledge are promulgating a complicated and conflicting array of frameworks, metrics, and evaluation tools by organizations that know very little if anything about North American airports. Everyone is asking for something different. So I think that industry should define its own framework and metrics rather than having them dictated to us by others who know nothing about our industry.

What are the Task Group Goals?

The Task Group is in the process of developing an ESG for Airports 101 (white paper). While we are not sure when ESG data requirements will be more impactful on North American airports, we do think that airports need to know that it's coming.

This white paper will:

- Describe what the world (primarily Europe) is doing and how it might impact North American airports.
- Explain the difference between sustainability reports (impact, community) and ESG reports (financial materiality, investors).
- Focus primarily on financially material disclosures and metrics for airports.
- Identify a baseline (recommended minimum) for disclosures/metrics; these baseline metrics are

based on stakeholder desires and requirements, and each airport can determine if they want to go further.

We are in the process of working to gain buy-in from stakeholders on the recommended metrics. We're currently meeting with the various ACI-NA committees that "own" pieces of the data, as well as external stakeholders, such as airlines, insurers, and credit-rating agencies. We're working to release the white paper in the spring of 2024, and then plan to update it every couple of years.

What are your observations on ESG through the eyes of a CFO?

Some elements of ESG are **financially material** to rating agencies, investors, and insurers because ESG can impact their risk analyses.

Rating agencies and investors look at ESG over the life of the bonds (up to 30 years), while insurance companies view ESG over the life of the policy and want to know that the insured has ESG practices in place.

Coming into effect is the developing requirement for airlines to follow SEC rules on financially material issues affecting their hubs, which may make some airport metrics important to the airlines.

Financially material information is required to be disclosed in Official Statements (OS) for debt, and now financially material ESG information must be accurate and consistently reported in OS. The bottom line is that **disclosures in ESG Reports require the same level of scrutiny as the OS (CFOs and General Councils need to be involved).**



Chris Poinatte
DFW



Melinda Pagliarello
ACI-NA



Chad Reese
SDCRAA

What ESG elements are rising up to be financially material?

Environmental

- Plans, progress, and projected cost (if known) to mitigate current and future **climate risks** (e.g., rising seas, hurricanes, heat, storms)
- Focus is on resiliency and how an airport is hardening its assets
- **Announced goals** (e.g., carbon neutrality, zero waste)
- Must report plans and progress to achieve "E" Goals

Governance

- Governance structure
- Board and executive leadership (how you make decisions)
- Approach to risk management
- Reporting, transparency, ethics, and compliance

Social

- Diversity, Equity, and Inclusion (DEI) – probably not financially material, but one of first questions investors ask

How did you and the Reporting and Metrics Task Group come to identify those financially material areas?

The group began by researching airport ESG reports and OS for ESG disclosures. We also researched published frameworks from the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Task Force on Climate-Related Financial Disclosures (TCFD), and others that could be applicable to the airport industry. In order to then learn their ESG needs and desires and to build a network to possibly persuade them in the future, I, along with other task group members, had multiple discussions with:

- Rating agencies (both the financial and ESG sides of the business)
- Investors
- Insurance companies
- Airlines

What has been the investor feedback?

Investors told us that they are primarily interested in disclosures that are **financially material**, that could potentially impact an airport's ability to repay debt. Their primary focus is on Environmental elements, as well as some Social elements, while noting that they have always evaluated Governance as part of their risk analyses.

Investors with ESG analysts also desire **impact** metrics and narratives so bonds could be included in ESG-type funds.

All investors support airports taking the lead to standardize disclosures.

They also say that it is important to eliminate "green washing"; they desire factual reporting with 5 years of data. And there's general agreement that ESG is clearly becoming more and more important.

How aware do you think your fellow airport CFOs are about ESG?

I did a brief survey over the summer through the ACI-NA Finance Committee, and through that received input from 29 airports. The findings were that nearly all large hubs that issued debt this year were asked ESG questions. However, none of the medium hub CFOs who responded have been asked about ESG elements. Reflecting the current focus at the large hub level, the last time I reviewed it, 9 of 21 large hubs have issued ESG reports, with several others planning to issue first reports this year.

I've heard you say that your interviews with the insurance industry regarding ESG has been eye-opening. Please tell us more about that.

The background information is that many airports have large property insurance or owner-controlled insurance program (OCIP) requirements. For large policies, the primary insurer will enter into risk sharing pools with other carriers, some from the United States and some from Europe (primarily London). Those European insurance companies are beginning to request ESG information from the companies (airports) being insured.

What has really gotten my attention is that an inability to get full insurance coverage for large OCIP projects

or to cover airport terminals would significantly shift financial risk to airports.

Are we ready to share the recommended disclosures to track?

Consider this a preview, and part of getting the information out to ACI-NA members. This list of metrics is not final, and we’re still going through the process of talking to the different committees to hear their thoughts, advice, and concerns. Given the cross-committee structure of the Reporting and Metrics Task Group, I’m very hopeful that we’ve landed in a good place, but we need to continue the process of engagement.

With those caveats, we narrowed down disclosures/metrics from 75 to 20, falling into the following categories (see tables below).

Do you have any closing thoughts?

If you are going to issue debt in the future, investors will be asking for ESG information. At some point, insurers will be asking too, especially European reinsurance companies. The **ACI-NA ESG White Paper will provide crucial guidance** for airports but **is not** a requirement. However, even if you **do not** publish an ESG report, you should track the data internally to be able to answer these questions.

Category	Recommended			Optional		
	Metric	Narrative*	Total	Metric	Narrative*	Total
Environmental	5	3	8	12	5	17
Social	3	0	3	14	3	17
Governance	2	5	7	8	1	9
Total	10	8	18	34	9	43

Environmental	Social	Governance
<ul style="list-style-type: none"> • Energy consumption • Energy intensity • GHG emissions (Scope 1 and 2) • GHG intensity (Scope 1 and 2) • Climate risk and adaptation* • Environmental commitments • Waste management* • Water management* 	<ul style="list-style-type: none"> • Diversity, Equity, and Inclusion (workforce) • Business supplier diversity • Concessions diversity 	<ul style="list-style-type: none"> • Governance/Organization structure* • Board of Directors practices • Executive management (diversity and experience) • Approach to risk management (RM)* • Cyber security* • Reporting and transparency* • Ethics and compliance*

* Narrative only, all others include narrative and a metric.

AIRPORT CARBON ACCREDITATION HIGHLIGHTS

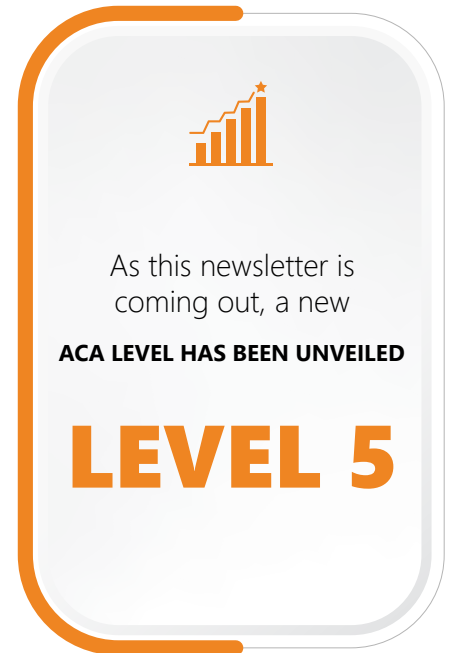
Nearly 10 Years of ACA in North America

Contributed by Melinda Pagliarello, Airports Council International – North America (ACI-NA)



Melinda Pagliarello
ACI-NA

2024 will mark 10 years since the Airport Carbon Accreditation (ACA) program came to North America. As we gear up to celebrate, it's a good moment to recognize some of this year's accomplishments.



Reaching Level 5

To achieve Level 5 an airport needs to achieve Net Zero for Scope 1 and Scope 2 emissions. ACI-NA members were represented in the ACA Task Force that developed Level 5 by **Sarah Ziomek** (Dallas Fort Worth International Airport) and **Steven Thomas** (Greater Toronto Airports Authority).

Key ACA facts

To remain in the program at Level 2 or higher, airports must reduce their Scope 1 and Scope 2 emissions every single year (on a rolling 3-year average).

Airports must go through both an audit and verification process to receive their certification. Certified airports go through this every single year (with a modified process for those holding a 3-year renewal certificate).

YOUNG PROFESSIONAL SPOTLIGHT

Meet an Airport Young Professional

Robbie Gross, Murphy, and Tilly (CMT)

Contributed by Eric Caplan, Hillsborough County Aviation Authority (HCAA)

Robbie Gross serves as the Senior Air Quality Scientist for Crawford, Murphy, and Tilly (CMT),

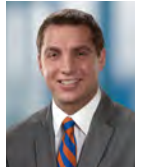
formerly KB Environmental Sciences, and works within CMT's environmental group and is focused on aviation air quality consulting. Robbie grew up in Long Island, New York, and currently resides in St. Petersburg, Florida, where he enjoys stand-up paddleboarding, being on the water, and cheering on his favorite New York sports teams. Robbie attended Johns Hopkins University, receiving a bachelor's degree in environmental science. After finishing his undergraduate studies, Robbie moved to Tallahassee, Florida, where he attended Florida State University and achieved a master's degree in meteorology. Continuing his success in education, Robbie then achieved a PhD in environmental engineering from the University of Florida, before starting his professional career with KB Environmental in 2017.

Due to his educational achievements, Robbie was able to quickly land a position as an Air Quality Scientist with KB Environmental and grow throughout the organization while it was acquired by CMT. The success of Robbie's growth throughout the organization can be attributed to his openness to learn about new subject matter, his desire to collaborate and get involved with a variety of projects and organizations, and his

ability to be an innovative thinker. Robbie believes that his engagement with professional organizations, and in public speaking opportunities, allowed him to develop the necessary communication and leadership skills that transferred into success at his organization. These skills also empowered him to think outside of the box and be forward in offering alternative solutions for his clients.

As a Senior Air Quality Scientist at CMT, Robbie works on a variety of different projects related to air quality, greenhouse gas (GHG) emissions, ACRP projects, and Airport Carbon Accreditation (ACA). As Robbie has progressed in his role at CMT, he has also taken on a business development and marketing role for the organization as well. In addition to providing air pollution expertise to his clients (primarily airports), Robbie engages in conferences, professional organizations, and other networking events on behalf of CMT.

Robbie did not initially begin his career with airport-related experience, and his passion for aviation grew over time. Robbie's initial focus was to learn the ins and outs of air pollution and weather patterns, with the focus on improving our environment. However, throughout his time at both KB Environmental Services and CMT, and due to his desire to learn, Robbie excelled in understanding the complex nature of airports and the strict regulations they operate under. Robbie has become an air pollution expert for many airport clients across the country, aiding them in addressing NEPA regulations, and providing emissions control and tracking services. Robbie noted that in addition to his eagerness to learn, his involvement with organizations like ACI and the air quality working groups grew his admiration for all that the aviation industry has to offer.



Robbie Gross,
CMT



Eric Caplan,
HCAA



As Robbie's experience and love of the aviation industry has grown over time, he has worked on a lot of exciting projects. One of his most notable projects was the JFK Airport Redevelopment Program for the Port Authority of New York and New Jersey. On behalf of CMT, Robbie led the organization through various air pollution studies because JFK is in an area designated as "severe non-attainment" for certain



criteria pollutants. Robbie worked with developers, regulators, and the Port Authority to identify unique solutions to help minimize emissions, while still allowing major development of the campus to move forward. Robbie attributes some of the success experienced

at JFK, as well as many others, to his communication and interpersonal skills, as well as his ability to develop personal relationships. Robbie believes that communication is key, and that making the effort to understand all points of view allowed him to identify creative solutions necessary to make a project successful.

When asked what advice Robbie would give to young professionals that are just starting out their careers in aviation or air quality, Robbie advises to be a self-starter and be willing to study your field independently and outside of your work hours. Robbie believes that to be truly successful, you must be self-motivated to master your craft, have the ability to teach yourself different things, and always remain curious. This type of self-motivation will take you a long way. Robbie also advises to be open to all opportunities and not be afraid to ask questions and develop relationships. He believes that these steps will help inspire a successful career.

AIRPORTS GOING GREEN CONFERENCE RECAP

The 16th gathering of Airports Going Green®, a conference founded by the Chicago Department of Aviation in 2007, was hosted in Phoenix, Arizona, in November. Director of Aviation Services at the Phoenix Department of Aviation, **Chad Makovsky**, A.A.E., and Asset Management and Sustainability Programs Administrator, **Jennifer Maples**, provided a unique conference experience focused on the central theme of "Future Forward," highlighting airports' sustainability journey of learning from the past, improving the present, and planning for the future.

"We were honored to showcase some of Phoenix Sky Harbor International Airport's sustainability accomplishments and are grateful for the opportunity to learn from so many of the leading aviation sustainability professionals who attended this year's event."

Jennifer Maples

Phoenix Sky Harbor International Airport

Congratulations to this year's Airports Going Green AwardsSM winners, an annual tradition of celebrating leadership in aviation sustainability.

James M. Crites Pioneer in Aviation Sustainability	Lyne Michaud, Aéroports de Montréal
Outstanding Individual Leadership	Erin Cooke, San Francisco International Airport
Outstanding Airport Leadership	El Dorado International Airport
Outstanding Sustainability Program	Melbourne International Airport, On-site Organic Waste Processing Los Angeles World Airports, Iride Inglewood
Outstanding Airline Program	United Airlines Ventures, Sustainable Flight Fund

For more information, please visit: airportsgoinggreen.org

See You in 2024!

Upcoming Events

ACI-NA Airports@Work Conference

April 8–11, 2024
Hyatt Regency New Orleans (New Orleans, LA)

ACI-NA Business of Airports Conference

June 10–12, 2024
JW Marriott Miami Turnberry Resort & Spa (Miami, FL)

ACI-NA Annual Conference & Exhibition

September 7–10, 2024
DeVos Place (Grand Rapids, MI)

ACI-NA/AAAE Noise Conference

October 2024
Location TBD

ACI-NA Airport Planning & NEPA Workshop

December 2024
Location TBD

Airports Going Green

Date and Location TBD



ACI-NA Conference Highlights



Send ideas to:



Bridget Rief, P.E., Chair | email bridget.rief@mspmac.org | tel 612.725.8371
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Lisa Reznar, Technical Support | email lreznar@ricocondo.com | tel 312.212.8829

ACI-NA Conference Highlights

