

AAAE Airports Going Green Conference October 25-28, 2015

Presented to Board by Mary Hetherington on December 2, 2015

Sustainability and Climate Action are not ONE project type but a collection of projects; sometimes this is called the WEDGE approach to Climate Change.

This effort is worldwide, and ranges from 'tree-huggers' to Goldman Sachs. The effort means making changes in energy, water, waste, emissions, etc. in order to reduce our overall footprint.

We Don't Need to Invent the Wheel

There are a plethora of available plans that can be reviewed to get ideas. We don't need to invent the wheel but there is leverage in committing resources that can use that wheel. SFO, LAWA, TPA, PDX, CHI, and many, many more...even South Lake Tahoe's Airport. We can look at how these airports are addressing:

- What gets Measured gets Done.
- What gets Rewarded gets Repeated.
- Who is Responsible?
- What is the Budget?

There are many different methodologies, frameworks, and developed plans that we could access to pursue Sustainability

SAM - Sustainable Airports Manual

LEED – Leadership in Energy & Environmental Design

ISO – **ISO 14000** is a family of standards related to environmental management that exists to help organizations (a) minimize how their operations (processes, etc.) negatively affect the environment (i.e., cause adverse changes to air, water, or land); (b) comply with applicable laws, regulations, and other environmentally oriented requirements, and (c) continually improve in the above.

GRI – Global Reporting Initiative

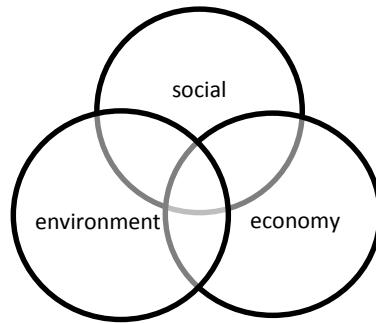
We Can Develop a Vision to Decide to Implement

BHAG – Big, Hairy Audacious Goal. Phrase coined in book, "Built to Last: successful Habits of Visionary Companies" by James Collins and Jerry Porras. A BHAG is a term that vividly conveys the excitement, energy and envelope-pushing boldness stirred up by such endeavors. Jim Morrison has also talked about this idea in terms of our community being the best it can be.

Implementation is often Top-Down Driven because this creates the support, funding, endorsement and priority in the organization. However, it is staff that is vital to successful implementation. I believe this is a care-about for our staff (I know it is for Sally Lyon) and we should tap into that enthusiasm.

Saves Money and Is Responsible to The Future

Triple Bottom Line: A phrase coined in 1994 by John Elkington and later used in his 1997 book "Cannibals With Forks: The Triple Bottom Line Of 21st Century Business" describing the financial, social and environmental "bottom lines" of companies. **A triple bottom line measures the company's economic value, "people account" – which measures the company's degree of social responsibility and the company's "planet account" – which measures the company's environmental responsibility.** Elkington posits that companies should prepare three bottom lines – the triple bottom line – instead of focusing solely on its finances, thereby giving consideration to the company's social, economic and environmental impact.



Items our Board and Staff to Consider for Implementation

- Think of our Mission and Vision with a view toward Sustainability.
- Incorporate Sustainability and the Triple Bottom Line into our Strategic Plan.
- With the potential hiring of a new FTE, make this a major portion of their job description.
- Become the liaison to create a Regional Climate Collaborative coordinating with the many Special Districts, government agencies, and larger businesses. Use the new FTE to reach out to the San Diego Airport Authority (one of the other nine airport special districts in California) that chairs the San Diego Regional Climate Collaborative, which is a network for public agencies that serve the San Diego region to share expertise, leverage resources, and advance comprehensive solutions to facilitate climate change planning. <http://sdclimatecollaborative.org/>
- Requirements for Contractors to meet sustainability criteria. This is already happening at many airports and businesses throughout the world. Again, we can learn from other airports.

FAA – Elliott Black, Director of Airport Planning & Programming

- Energy Efficiency improvements are AIP eligible if they are part of other projects.
- Noise is the biggest environmental issue at this time; there has been a “change in the social contract”
- The FAA will fund doing an Inventory but not implementation unless the region is in a non-attainment area, and then VALE could fund the implementation.
- Congress said that every airport that gets AIP funds for their Master Plan must have a recycling program.

Items to be aware of

- EPA filed an endangerment about aircraft in high altitude. <https://www.federalregister.gov/articles/2015/07/01/2015-15192/proposed-finding-that-greenhouse-gas-emissions-from-aircraft-cause-or-contribute-to-air-pollution> The Administrator is also proposing to find that greenhouse gas emissions from certain classes of engines used in aircraft are contributing to air pollution—the mix of greenhouse gases in the atmosphere—that endangers public health and welfare under section 231(a) of the Clean Air Act. Concurrent with these proposed findings, the EPA is issuing an Advance Notice of Proposed Rulemaking to provide an overview of and seek input on a variety of issues related to setting an international CO₂ standard for aircraft at the International Civil Aviation Organization (ICAO), ICAO's progress in establishing global aircraft standards that achieve meaningful reductions in CO₂ emissions

- Customers can contribute to carbon offset programs. At this time, only 0.1% of passengers offset their carbon. For example, my flight to Chicago would add an additional \$4.77 to offset 0.397 tons for roundtrip cost.
<http://www.carbonfootprint.com/offset.aspx?o=0.397&a=r&r=CalcFlight&defra=true>
- Aircraft contribute 10.5% of all transport emissions. Worldwide, they contribute 2% of all carbon.
- Any garbage from an international flight is considered to be a medical waste and has to be red-bagged and treated.
- Denver International: glycol recycling. They collect 75% of what is applied, which they said is the highest amount of recovery in the nation.

Case Studies

ATAG (Air Transport Action Group). Collaborative action by manufacturers, airports, airlines, ANSP, suppliers. The speaker referenced the hippies and said that much of what they rebelled for is now mainstream.

IATA (International Air Transport Association) is a trade association of the world's airlines. These 250 airlines, primarily major carriers, carry approximately 84% of total Available Seat Kilometers air traffic. IATA members and all industry stakeholders have agreed to three sequential environmental goals:

1. An average improvement in fuel efficiency of 1.5% per annum from 2009 through 2020
2. A cap on net carbon emissions from aviation from 2020 (carbon-neutral growth)
3. A 50% reduction in net aviation carbon emissions by 2050 relative to 2005 levels.

Hong Kong International Airport. Reduced 11 million kwh in 2013/2014 despite 5% growth in passengers. There is a BUSINESS CASE to do so: reduce cost, reduce regulatory risk, management reputational risk, and reduce operational risk.

Pecha Kucha – 20 minutes per presenter for Sustainable Products & Services

Triverus: They provided our ARFF and Snow removal equipment. They have a pressure washer/vacuum that provides surface cleaning. Goes after a street sweeper and can clean up copper, zinc, hydrocarbons and salt. Approximately \$400,000. It was developed for aircraft carriers. Particularly effective in keeping permeable pavements permeable. (Possible linkage to other agencies in our District?)

Other Interesting Tidbits

- Walmart projects that they will sell 1,000,000 “drones” for Christmas.
- Induction Plate for Zero Emission Vehicles embedded in roads; takes 5 minutes to charge, which is about the same time for a bus to load/unload.
- Fulcrum, based at Reno Industrial Park, will be manufacturing alternative aircraft fuel from landfill material waste. This company's plant in Paramount will be making this fuel for United Airlines at LAX.
- Potato Starch cutlery is not compostable.