CONGRESSIONAL BRIEFING

The State of Play for Public Transit

Briefing Series: By Air, Land, and Sea: Navigating the Climate Future

Thursday, November 19, 2020

Materials will be available at:
www.eesi.org/111920transportation

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About EESI...

**NON-PROFIT**
Founded in 1984 by a bipartisan Congressional caucus as an independent (i.e., not federally-funded) non-profit organization

**NON-PARTISAN**
Source of non-partisan information on environmental, energy, and climate policies

**DIRECT ASSISTANCE**
In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop “on-bill financing” programs

**SUSTAINABLE SOCIETIES**
Focused on win-win solutions to make our energy, buildings, and transportation sectors sustainable, resilient, and more equitable
...About EESI

**HILL BRIEFINGS**
Video recordings and written summaries of Congressional briefings

**CLIMATE CHANGE SOLUTIONS**
Bi-weekly newsletter with all you need to know including a legislation tracker

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**FACT SHEETS**
Timely, science-based coverage of climate and clean energy topics
Infrastructure Sustainability and Resiliency

Paradigm Shifts and Opportunities

November 19, 2020

Presented by:
Dr. Cris B. Liban, P.E., ENV SP
Chief Sustainability Officer
Los Angeles County Metropolitan Transportation Authority
LA Metro is Los Angeles County’s...

- Regional Transit Planner/Funder
- Regional Transit System Builder
- Regional Transit Operator

More information here: [www.metro.net/sustainability](http://www.metro.net/sustainability)
Sustainability Accomplishments Timeline

A cost-neutral program since 2017
Monetized Benefits: ~$120M Net; **REINVESTING** in sustainability projects
Financial analysis done to implement these programs in next 10 years
Post COVID-19 Lock-Down:

❖ Everything has changed
  ❖ Assumptions
  ❖ Baseline conditions

❖ What happens to the things that we are already doing?
❖ Are we using adequate and correct tools?

❖ LA Metro Recovery Task Force
Partnerships are key.
Sustainability Accomplishments Timeline

Metro’s Environmental Accomplishments

Learn more at metro.net/projects/sustainability.

Procurement innovations.
Infrastructure Considerations

❖ Effects of Infrastructures to Environment
  ❖ Project Development/Planning
  ❖ Design/Construction
  ❖ Operations and Maintenance

❖ Effects of Environment to Infrastructure
  ❖ All Hazards Assessment
  ❖ Mitigation/Adaptation
  ❖ Resiliency
Adaptive Design/Flexible Adaptation Pathway Model

Building on What We Know vs. Doing Nothing

LA Metro Infrastructure: Sustainability Plan is Always a Requirement
Climate Safe Infrastructure, AB2800

- Climate Safe Infrastructure as Policy
- Permanent Funding for Science & Infrastructure
- Reinvent Engineering Process
- Training: All Phases of Infrastructure
- Development of Standards/MOPs
- Changes in Procurement
- Climate Safe Commission
- AB2800 (Quirk/Gonzales): Making the provisions of the original bill extended indefinitely.
Transforming The Profession

❖ Efforts on the ASCE Sustainability Roadmap
  ❖ Standards
  ❖ Incorporating Climate Data into Practice
  ❖ Developing Procurement Documents
  ❖ Certification

❖ International Coalition on Sustainable Infrastructure
  ❖ Guidance, Tools and Standards
  ❖ Finance and Funding
  ❖ Innovation
  ❖ Leadership and Life-Cycle
Questions/Discussion

Cris B. Liban, D.Env., P.E.
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www.metro.net/sustainability
sustainability@metro.net
A VIA bus typically carries 35-40 seated passengers. The 16-person limit would represent less than half of the seating capacity. Passengers will not be allowed to stand. Riders using walkers or wheelchairs can continue to ask for assistance when boarding. Apr 7, 2020

VIA Sets 'Safe Capacity' Limits on Buses Starting Wednesday ...
VIA’s Commitment to Sustainability

• New Renewable Natural Gas Partnership
• Compressed Natural Gas
• Solar Powered Shelter Lighting
• Electric Buses
• Permanent Pollution Prevention Plan
• Water
• Waste
• Recycling
Compressed Natural Gas
“This is a natural next step in our continued partnership with CPS Energy to provide a cleaner, ‘greener’ future through the use of renewable energy,” VIA President/CEO Jeffrey C. Arndt said. “Incorporating RNG fuel technology is part of VIA’s ongoing commitment to offer sustainable transit options that keep San Antonio moving.”
Solar and Electric
EPA Green Power Partnership
And More…

Permanent Pollution Prevention Plan

Water

Waste

Recycling
Questions?
SEPTA’s Budget Neutral Approach to Sustainability

Erik Johanson, Chief Innovation Officer

November 19, 2020
SEPTA’s Value Proposition

Transit Is Inherently Sustainable

LOWER PER PASSENGER MILE GHG EMISSIONS

- Subway/Elevated: 0.33
- Trolley: 0.38
- Regional Rail: 0.40
- Bus Fleet: 0.60
- Car: 0.87
SEPTA’s Sustainability Program

Triple Bottom Line Approach

“BUDGET NEUTRAL” APPROACH
(I.E., NO SET BUDGET FOR SUSTAINABILITY)

➢ Off-Budget Financing (Power Purchase Agreements, Energy Performance Contracts, Public-Private Partnerships)
➢ Grant Funding (FTA LoNo, CMAQ/DERA, PEDA)
➢ Core Business (Embedding Sustainability into Capital + Operations)
Energy Action Plan

Comprehensive Budget-Neutral Plan to Reduce Energy & GHG

WAYSIDE STORAGE (GRANTS, P3)

The New York Times
In Philadelphia, Batteries on Transit System Power More Than Just the Trains
January 22, 2016

BATTERY-ELECTRIC BUSES (FTA LONO GRANTS)
Solar Program

Power Purchase Agreements

ON-SITE, ROOFTOP SOLAR (PPA)

OFF-SITE, UTILITY SCALE SOLAR (VIRTUAL PPA)
Power Resiliency

Grants & Embedded in Core Operations

SOLAR + BATTERY-POWERED SIGNAL SYSTEM (FTA GRANT)

➢ Partially Funded Through Federal Climate Resilience Initiative

➢ 48 Hours of Back-Up Power In the Event of Signal Power Failure

➢ Avoids Rippling 12-Minute Average Delay from Each Outage

➢ Zero Signal Power Failures Since Pilot Installation in 2018

➢ Now Under Construction: Three More Lines (Ultimate Goal: Full Regional Rail Buildout)

➢ Potential to Become Primary Power in the Future
What did you think of the briefing?

Please take 2 minutes to let us know at:
www.eesi.org/survey

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