Infrastructure Sustainability and Resiliency

Paradigm Shifts and Opportunities

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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
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
Sustainability Accomplishments Timeline

Metro’s Environmental Accomplishments

Learn more at metro.net/projects/sustainability.

Investing in people.
Sustainability Accomplishments Timeline

Partnerships are key.
Sustainability Accomplishments Timeline

Metro’s Environmental Accomplishments

Learn more at https://metro.net/projects/sustainability.

Metro is the first transit agency in the nation to achieve the ISO 14001:2015 certification.

Metro is the first transit agency in the nation to install and operate electric vehicle chargers.

Metro is developing a Sustainable Acquisition Program.

Metro adopts the MEGA Program.

Metro installs its first EV Charger.

Metro is developing a Sustainable Transportation Strategic Plan.

Metro adopts the MSIP Strategic Plan.

Metro moves to a more sustainable office environment.

Metro installs its first LEED certified building.

Metro is the first transit agency in the nation to achieve the ISO 14001:2015 certification.

Metro achieves a goal of 20% reduction in possible water use.

Metro develops its Green Strategy.

Metro is developing the BTEP Strategic Plan.

Metro is the first transit agency in the nation to achieve the ISO 14001:2015 certification.

Metro achieves a 2.4 MW renewable energy capacity from solar panels at seven facilities.

Metro develops its Green Strategy.

Metro is developing the BTEP Strategic Plan.

Metro is the first transit agency in the nation to achieve the ISO 14001:2015 certification.

Metro works with its partners regionally and strategically to create a more resilient LA.

Metro develops its Green Strategy.

Metro is developing the BTEP Strategic Plan.

Metro adopts the MSIP Strategic Plan.

Metro launches the LA Metro Bikeshare.

Procurement innovations.
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

Legend:
- Adaptation action
- Adaptation action no longer viable
- Adaptation action potentially viable
- Transfer point

LA Metro Infrastructure: Sustainability Plan is Always a Requirement
Climate Safe Infrastructure, AB2800 (Quirk, 2016)

- 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

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