Reflecting on the High Road Framework

Paradigm Shifts and Opportunities

August 10, 2020

Presented by:
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Chief Sustainability Officer
Los Angeles County Metropolitan Transportation Authority

Los Angeles County – The Largest US Economy

- 88 incorporated cities
- Large area – 4,752 mi^2 (12,307 km^2)
- Larger than the states of Rhode Island and Delaware combined
- Large Population
  - Over 10 million people
  - 17.6 million in surrounding counties
  - More than 42 states
- Diverse – More than 40% foreign-born, over 220 languages spoken
- The 21st largest economy in the world; 16th if four surrounding counties are included (*Various Sources*)

LA Metro is Los Angeles County's…

- **Regional Transit Planner/Funder**

- **Regional Transit System Builder**

- **Regional Transit Operator**

Metro Transit Program (Existing and Future)

$120B Measure M :
Voter approved in November 2016

Getting Ready for the 2028 Olympics and 2026 World Cup

Existing Lines:

96 stations

105 miles

370,000 Daily Boardings

Existing + Measure R:

Total: 197-205 stations, 236+ miles

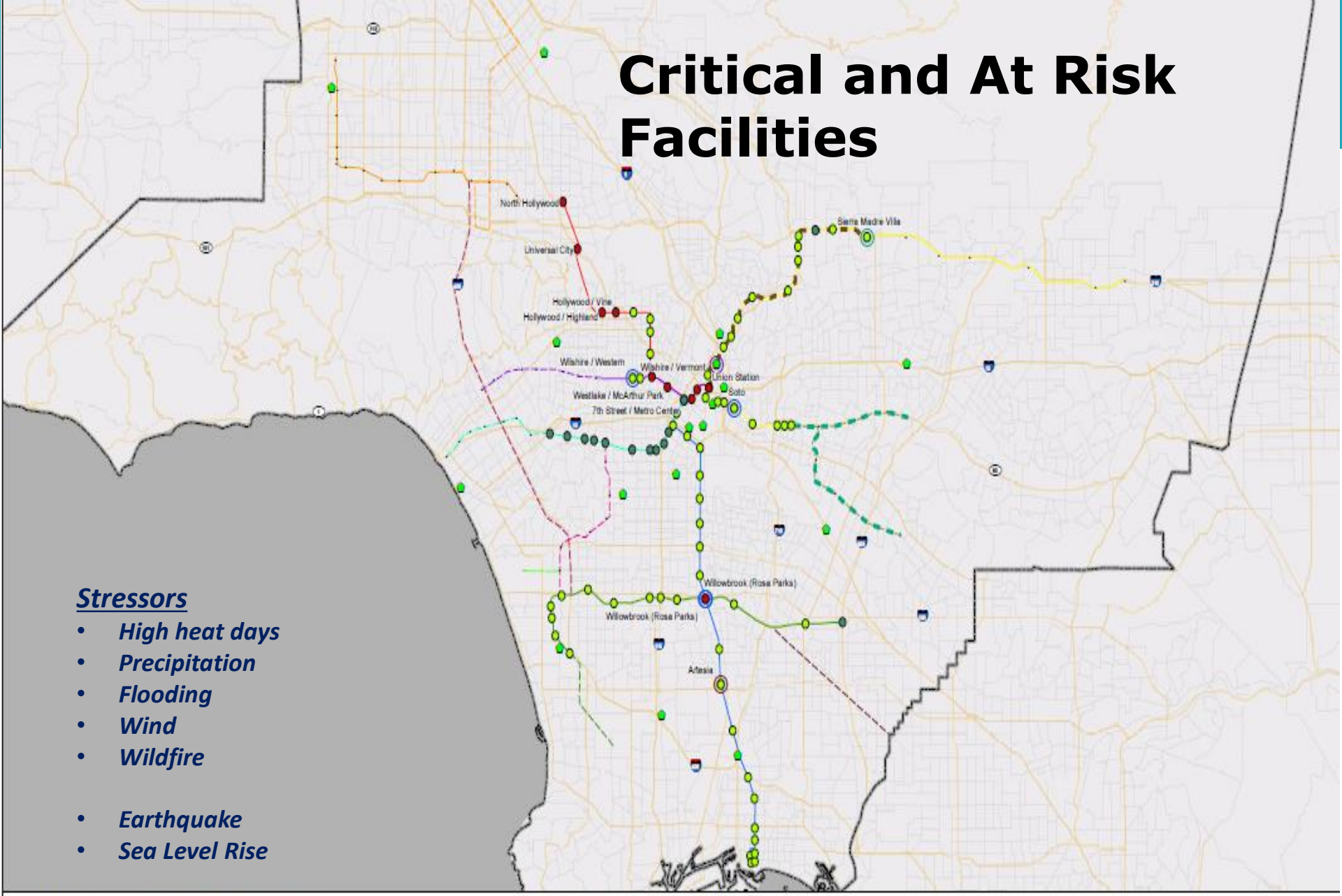
390,000+ New Boardings

Metro

13-1428mm ©2013 LACMTA

Transit Program (Existing and Future)

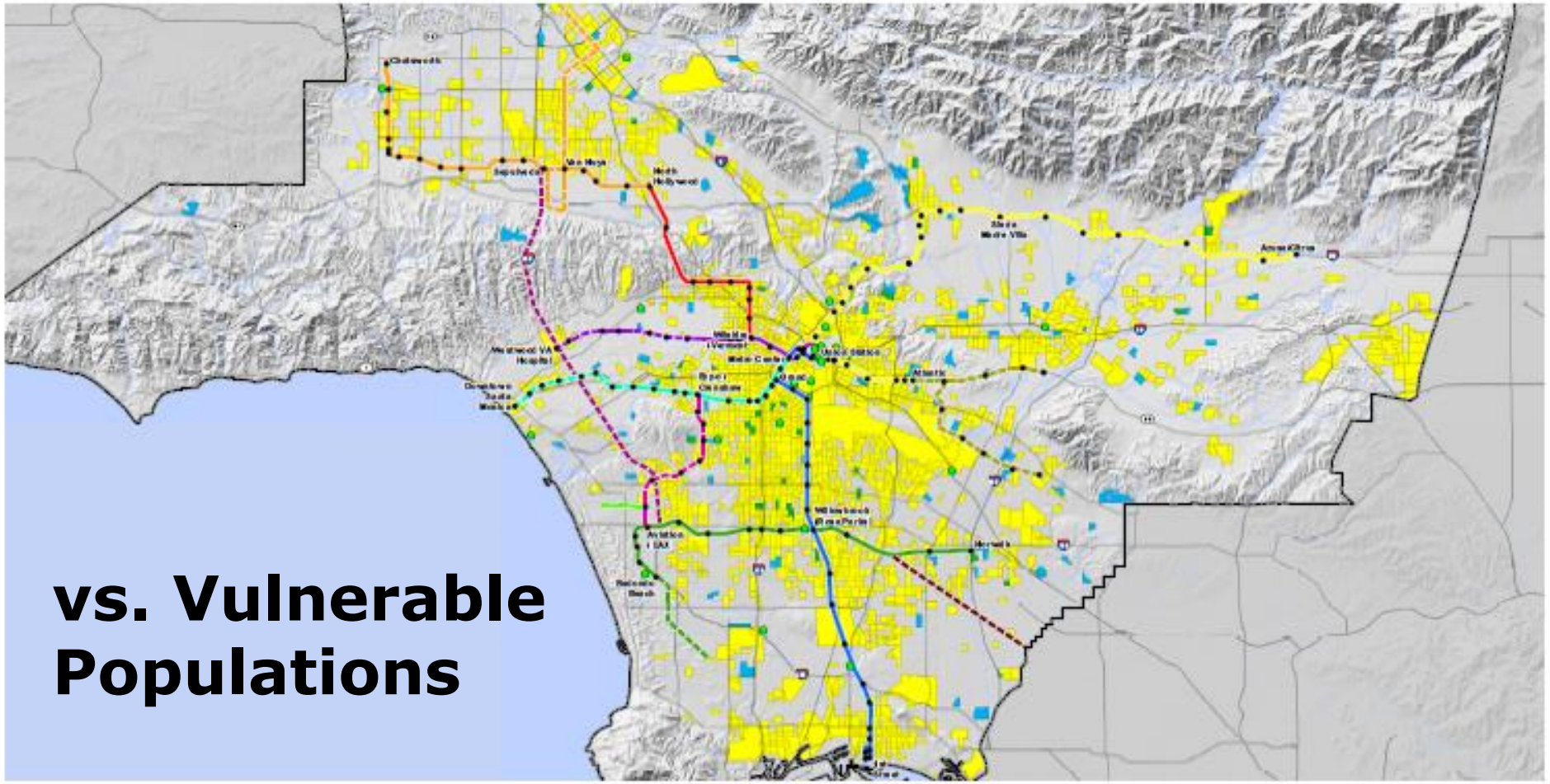
Critical and At Risk Facilities



Stressors

- ***High heat days***
- ***Precipitation***
- ***Flooding***
- ***Wind***
- ***Wildfire***

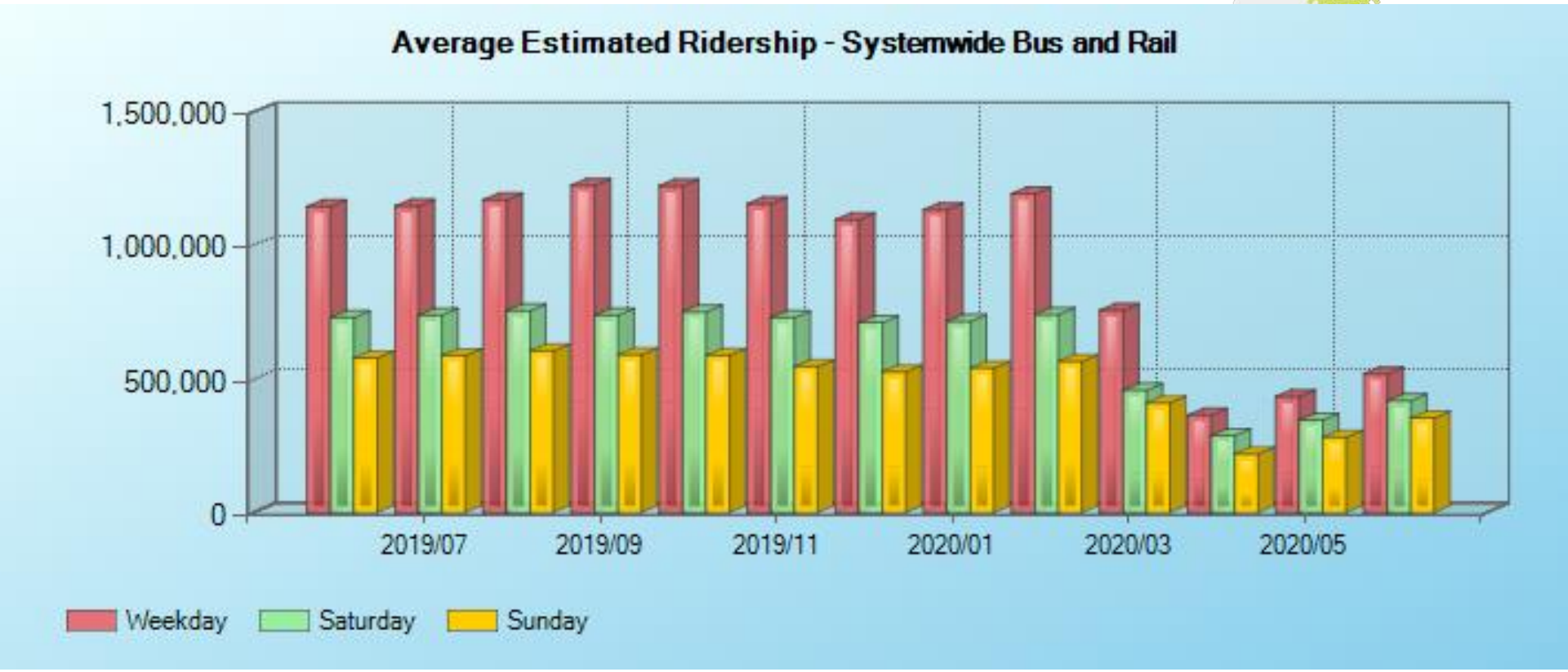
- ***Earthquake***
- ***Sea Level Rise***



Source: Los Angeles County; Los Angeles Metropolitan Transportation Authority 2013, AECOM 2013.

Then the pandemic hit…

COVID 19 Impact 1: Ridership

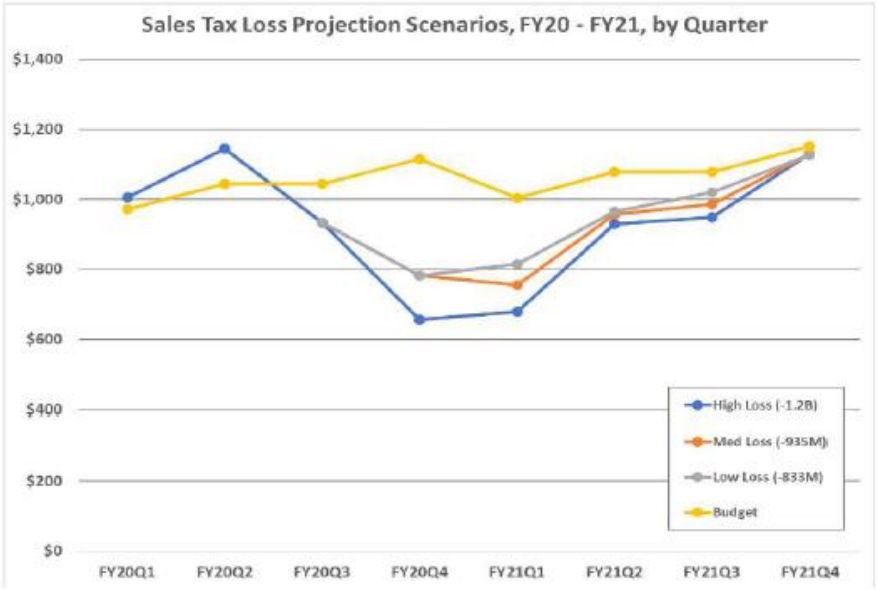


http://isotp.metro.net/MetroRidership/Index.aspx

COVID 19 Impact 1: Revenue

- LA Metro Sources of Revenue
  - Sales Tax
  - Fare box recovery
  - Toll Revenue
  - Loans and Grants
  - Others

https://boardagendas.metro.net/board-report/2020-0310/



We refuse to fail…

Draft: Long Range Transportation Plan

Our Next LA* is better transit.

- Transit Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is less congestion.

- Highway Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is complete streets.

- Active Transportation Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is access to opportunity.

- Joint Development Projects
- Strategies & Actions
- Performance Measures

Funding a Transportation Revolution

- Supporting Our Partners
- Operations & Maintenance

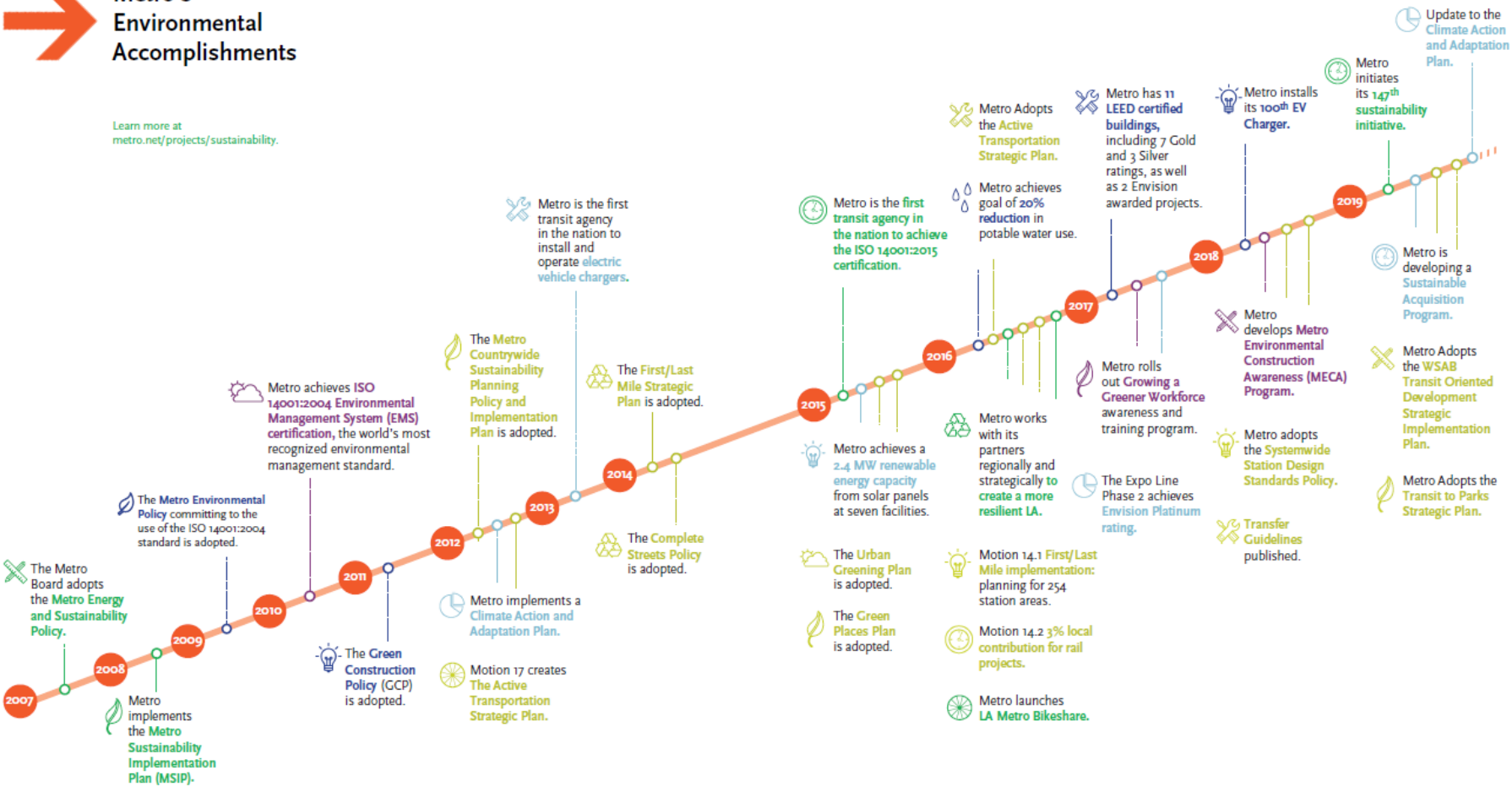
Bold New Policies & Programs

Plans for today, and the decades to come.

Sustainability Accomplishments Timeline

Metro's Environmental Accomplishments

Learn more at metro.net/projects/sustainability.



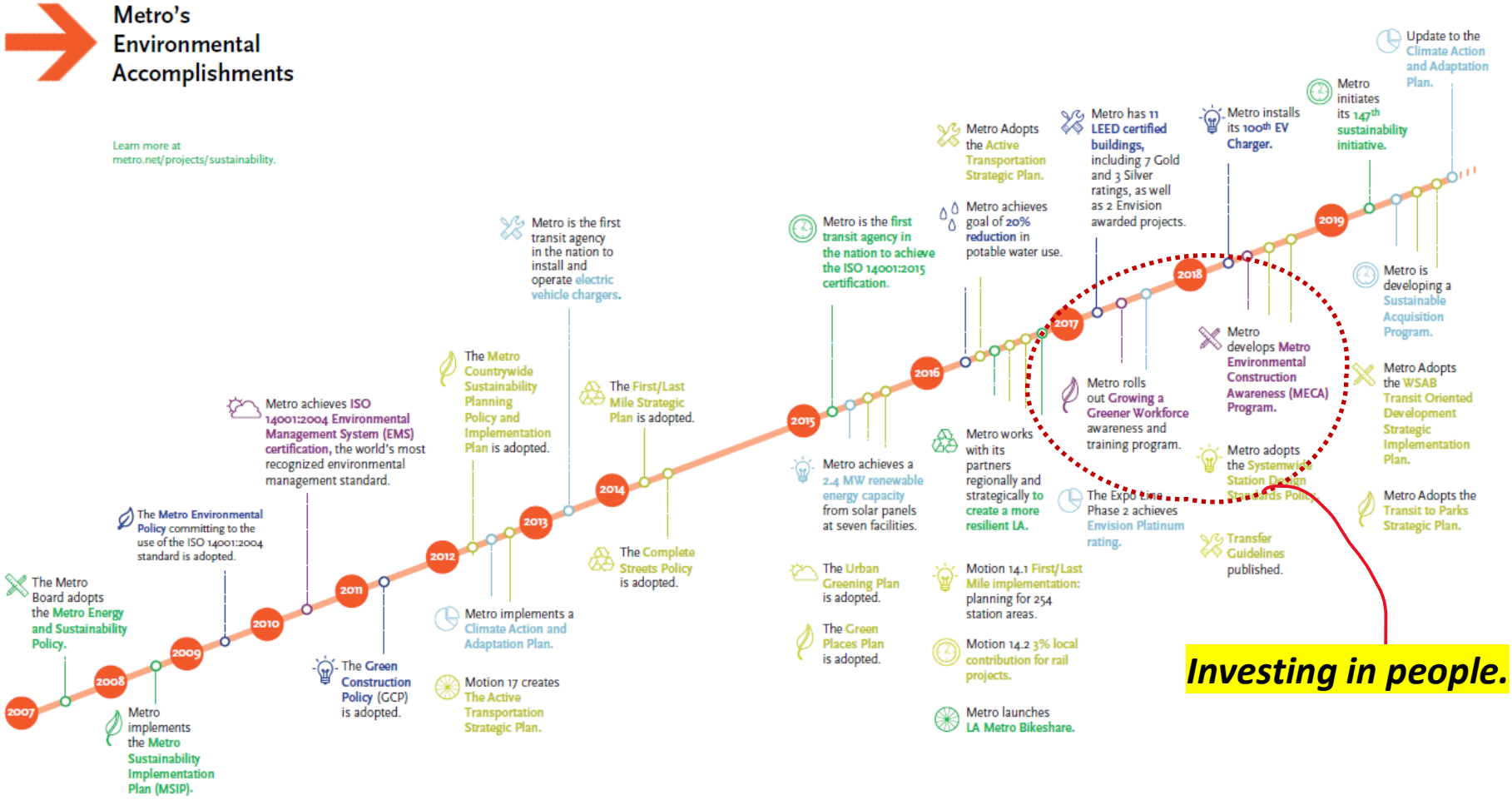
Post Lock-Down: What's Next?

- Everything has changed
  - Assumptions
  - Baseline conditions

- LA Metro Recovery Task Force

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

Sustainability Accomplishments Timeline



Sustainability Accomplishments Timeline

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Metro's Environmental Accomplishments

Learn more at metro.net/projects/sustainability.

Procurement innovations.

Mitigating GHG Emissions

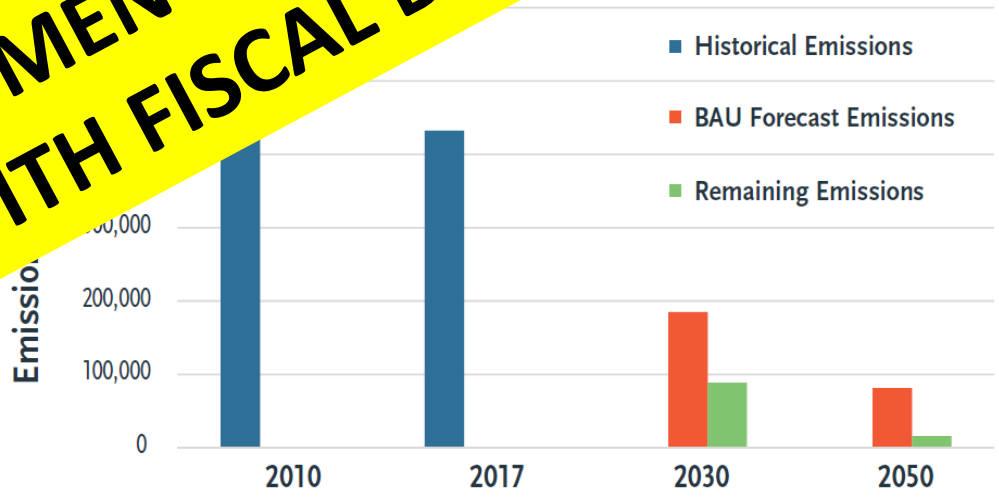
Goals

- 2030: 79% reduction relative to 2017 levels
- 2050: 100% (zero emissions) relative t

GHG Mitigation Measures

- Zero emission fle
- Renewable
- Green
-

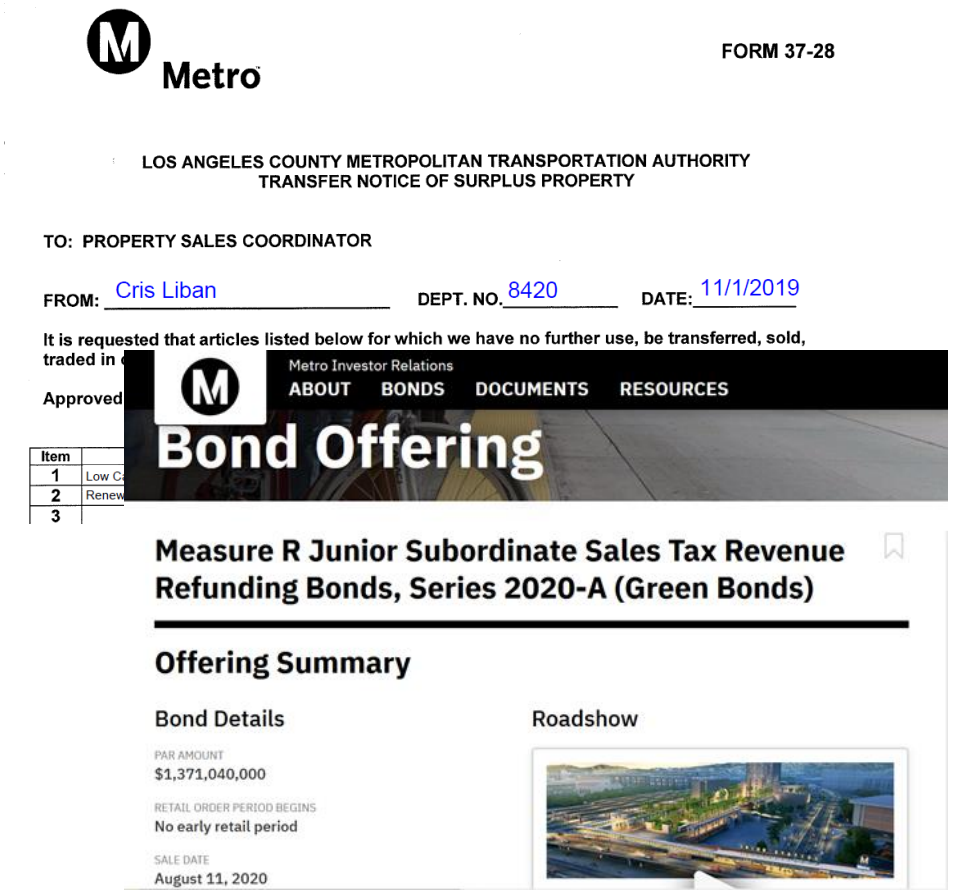
13 reduction measures
) emissions.



HOW DO WE MAKE ADJUSTMENTS TO THESE INVESTMENTS WHILE WE ARE FACED WITH FISCAL DEFICITS?

Leveraging Green Revenues

- Carbon Credits
  - Federal: RINs Credits
  - California: LCFS Credits
- Electric Vehicle Chargers
  - Operating Profit
  - Carbon Credits
- Green Bonds
  - ~$850M since 2017
  - New Offering In 2020



Metro

FORM 37-28

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
TRANSFER NOTICE OF SURPLUS PROPERTY

TO: PROPERTY SALES COORDINATOR

FROM: Cris Liban DEPT. NO. 8420 DATE: 11/1/2019

It is requested that articles listed below for which we have no further use, be transferred, sold, traded in

Approved

Item	
1	Low C
2	Renew
3	

Metro Investor Relations

ABOUT BONDS DOCUMENTS RESOURCES

Bond Offering

Measure R Junior Subordinate Sales Tax Revenue Refunding Bonds, Series 2020-A (Green Bonds)

Offering Summary

Bond Details

PAR AMOUNT
$1,371,040,000

RETAIL ORDER PERIOD BEGINS
No early retail period

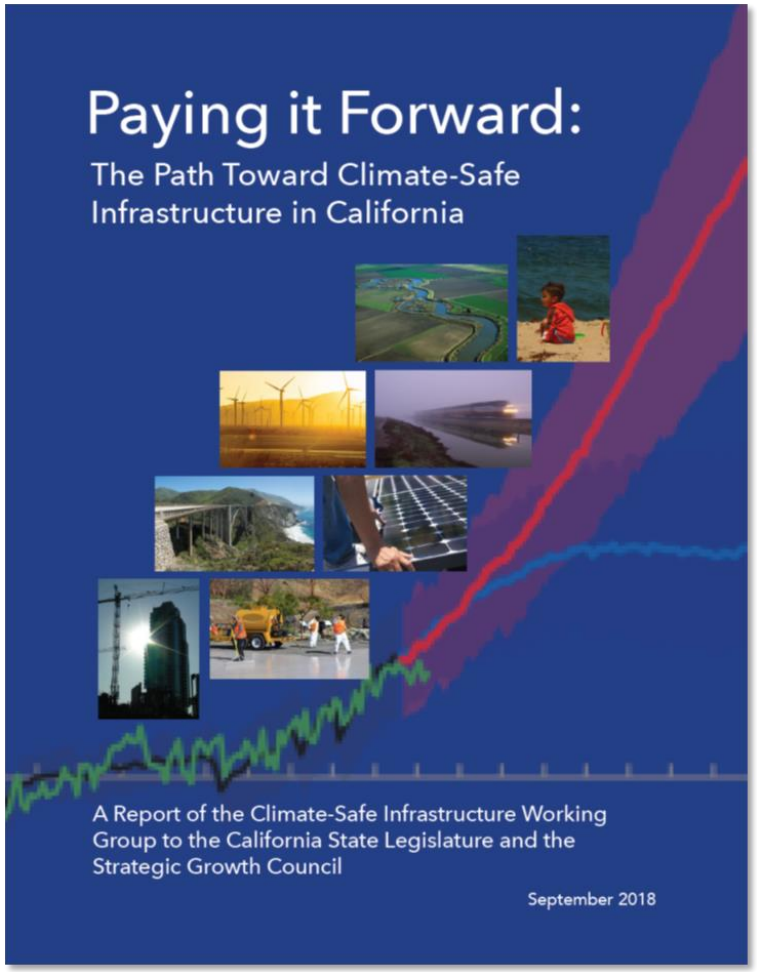
SALE DATE
August 11, 2020

Roadshow

CA Green Bonds Committee

- Convened and Chaired by the CA State Treasurer
- Purpose: *Expand financing for climate-friendly infrastructure through green bonds*
- Consists of 27 academics, engineers, investors, public policy experts, attorneys, and climate scientists
- Outcomes
  - Facilitate and educate investors and public on the power of green bonds and similar
  - Develop a green bonds framework in CA

Climate Safe Infrastructure, AB2800 (Quirk, 2016)



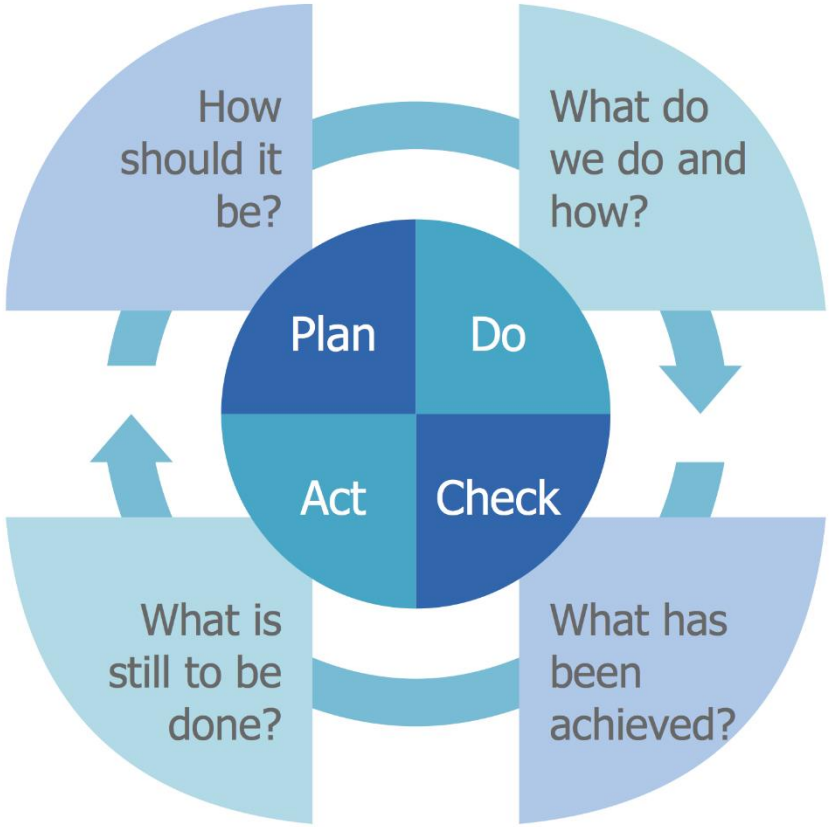
- **Climate Safe Infrastructure as Policy**
- **Permanent Funding for Science & Infrastructure**
- **Reinvent Engineering Process**
- **Training: All Phases of Infrastructure**
- **Development of Standards/MOPs**
- **Changes in Procurement**
- **Climate Safe Commission**
- ***AB2800 (Quirk/Gonzales: June 4, 2020): 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

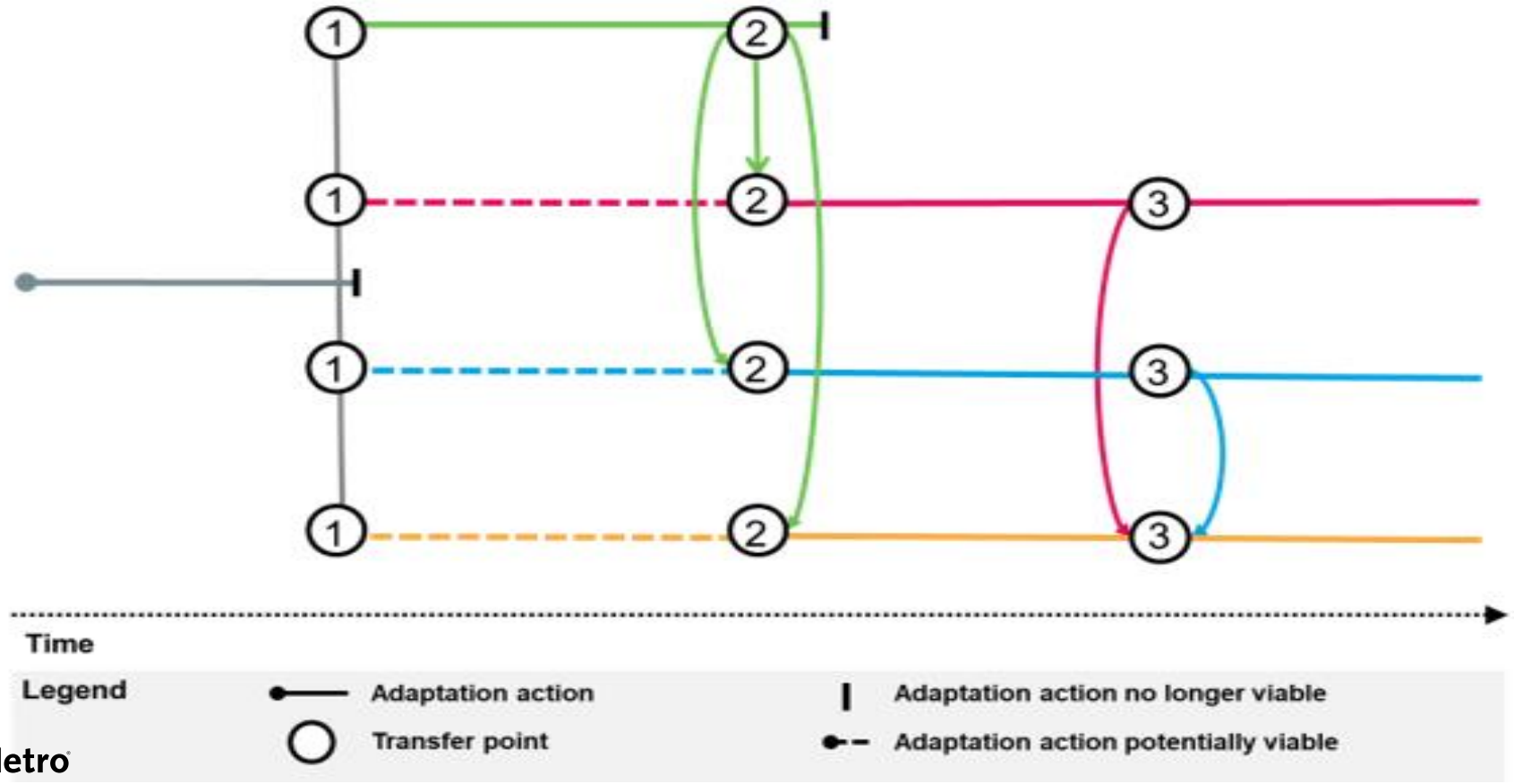
A Culture of Continual Improvement

- **Environmental Management System (EMS)**
- **ISO 14001:2015 Certified EMS**
- **Covers Construction and Operations Activities**

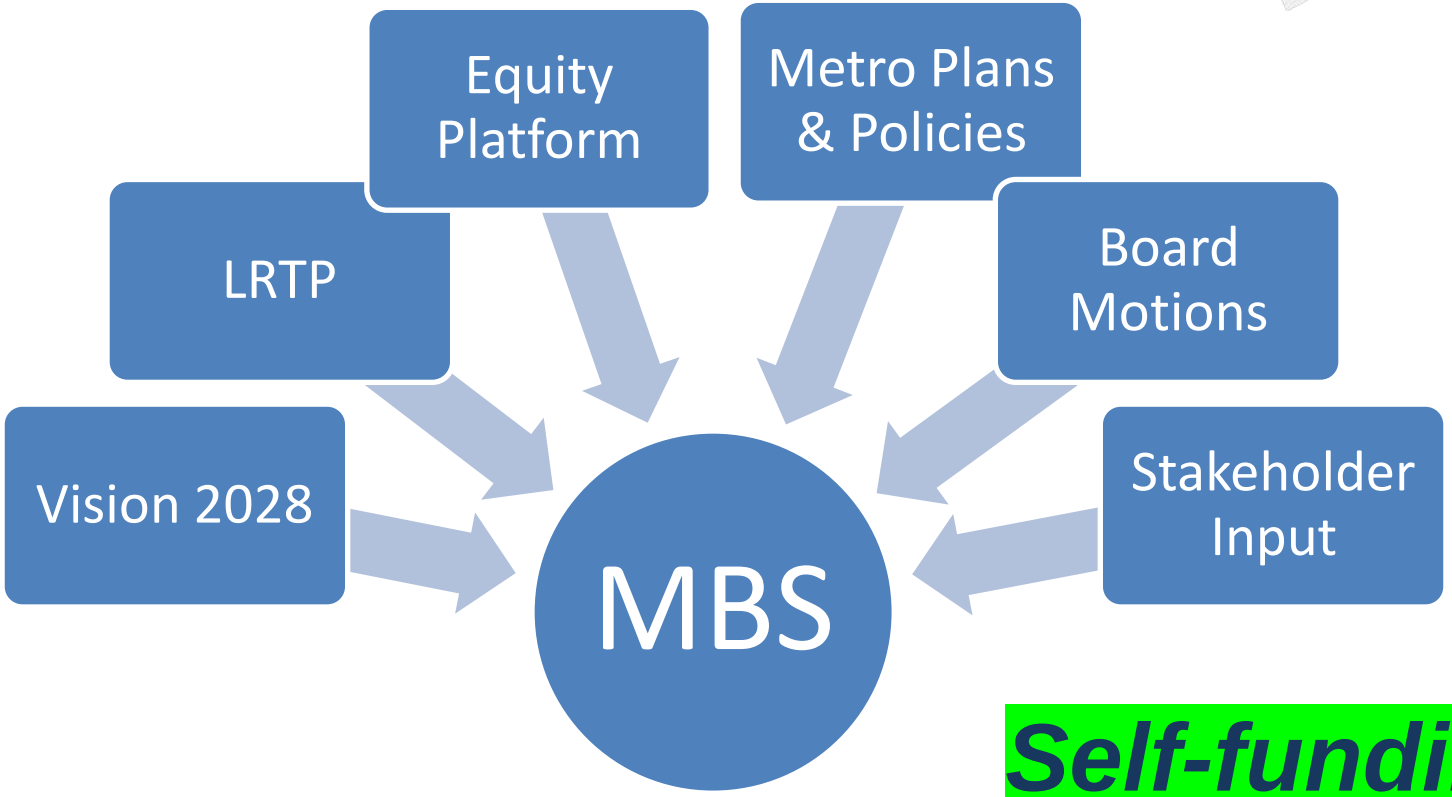


Building on What We Know vs. Doing Nothing

Adaptive Design/Flexible Adaptation Pathway Model



Comprehensive Planning



Self-funding!!!

The New Reality?

The New Reality?

The New Reality?

The New Reality?

The New Reality?

Joe Lemon, Metro, 2020

Crossing Paths with the High Road Framework

EXPERT BLOG › DOUGLASS SIMS

How to Do High Road Infrastructure: 10 Lessons from LA

May 15, 2019 | Douglass Sims

Editor's Note: In honor of Infrastructure Week, I have invited Dena Belzer, president of Strategic Economics, to author a guest post on High Road Infrastructure in action based on her conversation with Cris B. Liban, Executive Officer for Environmental Compliance and Sustainability at Los Angeles County Metropolitan Transportation Authority (LA Metro).

To go to the article, please click here.

Why Are Really Doing These…

Questions/Discussion

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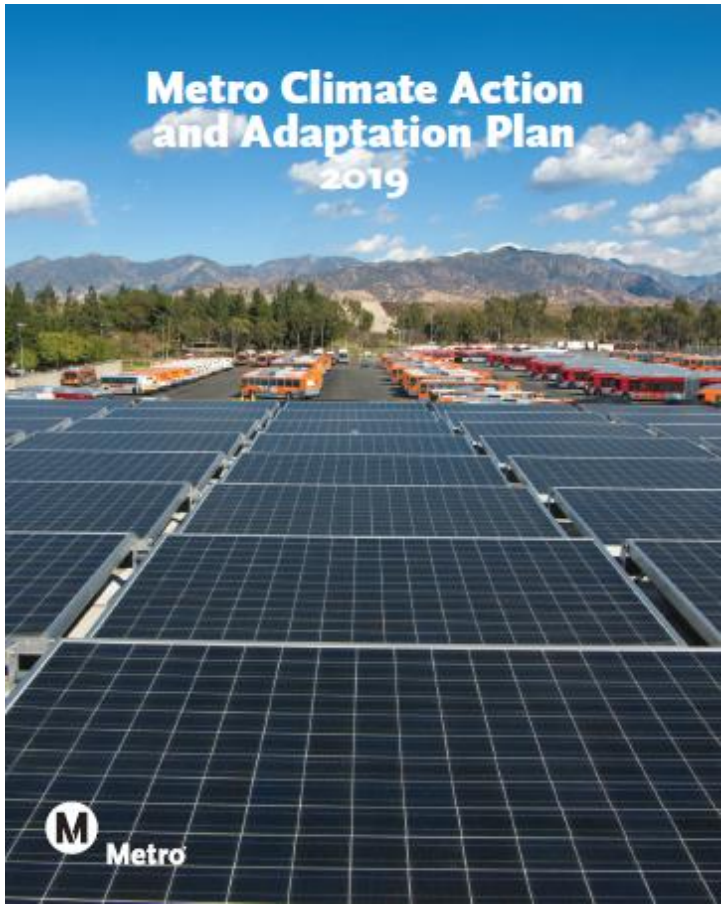

Thirteen Measures to Achieve Zero Emissions by 2050

1. Switch directly operated buses to battery-powered technologies
2. Deploy battery-powered buses in the contracted fleet
3. Switch vanpool vehicles to battery-powered vehicles
4. Replace non-revenue vehicles with battery-powered vehicles
5. Install systems to store energy captured from trains
6. Buy 100% renewable energy
7. Install photovoltaic systems
8. Install water-saving fixtures
9. Install non-potable recycled water systems
10. Install LED lights at facilities
11. Install electric heating systems
12. Replace facility appliances with more efficient electric appliances
13. Install electric vehicle charging at Metro facilities and implement an employee electric vehicle outreach plan