Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Metro

Board Report

File #: 2018-0422, **File Type:** Informational Report **Agenda Number:**

EXECUTIVE MANAGEMENT COMMITTEE
JULY 19, 2018

SUBJECT: 2018 ENERGY AND RESOURCE REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on 2018 Energy and Resource Report (Attachment A).

ISSUE

Metro reports its sustainability performance on an annual basis through the Energy and Resource (E&R) Report which updates agency progress on predefined performance metrics and identifies trends. The 2018 E&R Report provides an update to the 2017 E&R Report by presenting sustainability performance data for calendar year 2017. The Report has been reviewed by the Metro Sustainability Council.

BACKGROUND

In 2009, Metro became a founding member of the American Public Transportation Association (APTA) Sustainability Commitment, which “recognizes members who commit to becoming more sustainable in their operations and practices.” Signatories to the APTA Sustainability Commitment are required to quantify and report annually on a series of key performance metrics and to track performance against each metric over time. The commitment establishes the following sustainability metrics:

(1) Unlinked Passenger Trips

(2) Vehicle Miles Traveled

(3) Operating Expenses

(4) Criteria Air Pollutant Emissions

(5) Greenhouse Gas Emissions

(6) Greenhouse Gas Displacement

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(7) Energy Use

(8) Water Use

(9) Total Solid Waste

(10) Diversion from Landfill

DISCUSSION

The 2018 E&R Report marks Metro's ninth annual report since 2010 when the agency began reporting its environmental compliance and sustainability performance. The report is intended to communicate two things:

1. The performance metrics serve to quantify Metro's sustainability performance across ten key indicator areas (Table 1). Since 2012, many of the indicator areas are trending positively, largely due to institutional best practices, such as the now agency-wide Environmental Management System first piloted in 2007. Metro continues to operate one of the cleanest fleets in the nation with emissions nearly cut in half since 2012. Overall water use and greenhouse gas emissions are down since 2012, and Metro continues to displace more emissions than it produces by encouraging and enabling use of public transit. However, evaluating year-over-year performance reveals areas where additional focus is needed as the agency continues to retool, reenergize, and prepare for the next phase of transit expansion.
2. The Highlight sections in this report provide insight into how sustainability is adopted as a core value at Metro. This is key as the next generation of transit expansion is planned, built, operated and maintained in a way that does not just avoid negative impacts to the environment, but encourages positive and restorative changes to communities and the economy. For example, features like Green Procurement and Sustaining Creativity (pages 24 and 42 in the report) illuminate how principles of sustainability have become embedded into decision making and are reinforced through training and cross-departmental collaboration. Another feature on Environmental Justice (page 18) highlights how Metro's construction pollution reduction policies and transit planning address long-term environmental equity.

Additional highlights in this year's report include:

- Electric vehicle pilot - purchase of 10 Chevy Bolts as part of a pilot to reduce emissions from non-revenue vehicle fleet. By 2019 over 15% of Metro's non-revenue sedan fleet will be battery electric vehicles (BEVs).
- Growing a Greener Workforce - cross-departments and community partnership to raise awareness on principles and best practices in sustainability. Over 480 Metro and community members received certifications for G-PRO and Envision rating systems.

Table 1 - Performance Metrics Summary

Performance Metrics	2012	2013	2014	2015	2016	2017	Trends	
							Since 2016	Since 2012
OPERATIONAL EFFICIENCY								
Unlinked Passenger Trips *(per Capita x 100)*	4,752	4,757	4,649	4,377	4,111	3,904	-5.0%	-17.8%
Vehicle Miles Traveled *(per Capita x 100)*	78.7	78.7	78.8	79.4	79.3	78.8	-0.6%	0.1%
Operating Expenses *(Dollars per Vehicle Revenue Mile)*	$10.91	$10.97	$10.88	$11.08	$12.22	$13.64	11.6%	25.0%
AIR QUALITY								
Criteria Air Pollutant Emissions *(Short Tons per 100,000 Vehicle Revenue Miles)*	70.2	60.1	56.9	50.8	34.7	40.9	17.9%	-41.7%
CLIMATE								
Greenhouse Gas Emissions *(Pounds CO_2e per Vehicle Revenue Mile)*	8.61	8.37	6.85	6.72	6.68	6.74	0.8%	-21.7%
Greenhouse Gas Displacement *(Net Emissions, MT CO_2e)*	-4,069	-3,933	-86,433	-73,827	-57,461	-40,758	-29.1%	901.6%
ENERGY								
Energy Use *(MJ per Vehicle Revenue Mile)*	55.7	57.6	57.2	56.6	55.3	55.6	0.6%	-0.2%
WATER								
Water Use *(Gallons per Vehicle Revenue Mile)*	2.96	3.33	2.48	2.15	1.74	2.11	21.3%	-28.7%
WASTE								
Total Solid Waste *(Tons per 100,000 Vehicle Revenue Miles)*	7.52	7.83	7.44	7.73	7.68	9.57	24.6%	27.3%
Diversion from Landfill *(% Diverted)*	48%	26%	25%	21%	21%	28%	34.6%	-41.7%

FINANCIAL IMPACT

This report does not have any financial or budget impacts.

NEXT STEPS

In addition to the 2018 E&R Report, staff is developing a Technical Appendix that will be made available online. The purpose of the Technical Appendix is to increase transparency by providing current and historical data used to develop performance metrics used in the report.

Staff will take the information from the 2018 E&R report and will refine the workplans developed to implement environmental and sustainability programs and initiatives for Metro.

ATTACHMENTS

Attachment A - 2018 Energy and Resource Report

Prepared by: Cris Liban, Executive Officer, Environmental Compliance and Sustainability (213) 922-2471

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Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

Metro 2018 Energy and Resource Report

Document Available Online at:
http://libraryarchives.metro.net/DB_Attachments/180622_Metro_2018_Energy_Resources_Report.pdf

2018 ENERGY & RESOURCE REPORT

Presentation to the Metro Executive Management Committee
July 2018

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APTA PROTOCOL

Sustainability Commitment - Annual report on ten metrics across six indicator areas for CY2017

OPERATIONAL EFFICIENCY

AIR QUALITY

CLIMATE

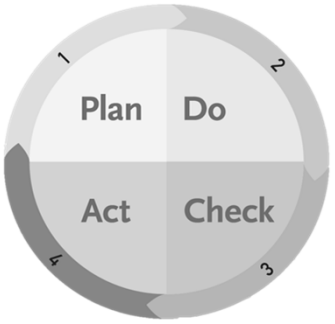
ENERGY

WATER

WASTE

Why do we do it?

1) Monitor performance – continual improvement
2) Identify trends to inform current and future initiatives
3) Celebrate successes across the agency
4) Increase transparency, share data and best practices



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KEY ACCOMPLISHMENTS

AIR QUALITY

- Bus Fleet: **40%** reduction in NOx emissions since 2012 (**82%** since 2008)
- Non-Revenue Fleet: **26%** reduction in NOx from 2016 through hybrid fleet conversions and lower mileage

CLIMATE

- **22%** reduction in greenhouse gas emissions (GHG) since 2012 from cleaner electricity grid
- Metro reduces more GHG emissions through VMT reduction (than it produces from its operations) by a factor of **1.1x**

WASTE

- Landfill diversion rate improved **35%** from 2016
- Not just recycling – waste reduction and material reuse best practices

PROGRAM HIGHLIGHTS

ENVIRONMENTAL JUSTICE

Metro's transit planning process and construction policies address long-term environmental equity by reducing air pollution and improving quality of life.

GROWING A GREENER WORKFORCE

Over 480 Metro employees and community members had been trained and certified as sustainability professionals.

ENVISION™

G|PRO

SUSTAINABILITY COUNCIL

Advisory council of 26 sustainability sector representatives and stakeholder groups.

GREEN CONSTRUCTION POLICY

Metro's Green Construction Policy (GCP) program has significantly reduced criteria air pollutants in densely populated areas of our region.