



Finance & Administration Committee

Information Item IV-A

April 10, 2014

Metro's Sustainability Initiatives

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

Action Information

MEAD Number:
200596

Resolution:
 Yes No

TITLE:

Metro's Sustainability Initiative

PRESENTATION SUMMARY:

Staff will update the Finance and Administration Committee on Metro's sustainability efforts, which were last brought before the Board in April 2012.

PURPOSE:

At the April 2012 presentation on sustainability projects, the Board requested regular updates on: sustainability project completion and development; incorporation of sustainability into Metro business planning and capital budgeting; and communication of Metro's commitment to sustainability. Since that meeting, several major steps have been taken to move sustainability forward at Metro. This presentation summarizes that progress.

DESCRIPTION:

The Business Case for Sustainability at Metro

Sustainability investments support Metro's Strategic Goal #4 - Ensuring Financial Stability and Investing in our People and Assets - because sustainability drives operating savings, promotes lifecycle asset investment, and introduces cost-saving technologies and practices. Fundamentally, sustainability is sound business practice that also has the benefit of promoting a more livable region.

The potential fiscal impacts of sustainability investments at Metro are sizable. Consider, for example, that the FY14 energy and water budget (vehicle and facilities combined) is just over \$125 million, a figure that may grow to approximately \$175 million by 2025 given anticipated rates of service growth, including Metro 2025 and the Silver Line. These estimates, though inclusive of service growth, do not take account of potential increases in utility rates.

Reducing energy spending by even one percent annually would save the Authority and its funders \$12.6 million over the next 10 years; a five percent reduction would increase the savings to \$63.3 million. Notably, investments in sustainability are among the most effective ways to catalyze these operating cost reductions; for example, assuming savings are achieved across fuel sources, increasing energy efficiency by 15 percent could save Metro nearly \$20 million per year by 2025.

Sustainability and Momentum

Momentum highlights sustainability under Strategic Goal #4 - Ensuring Financial Stability and Investing in our People and Assets.

Strategies highlighted in *Momentum* that align with sustainability include:

- Incorporation of lifecycle costing;
- Performance based management;
- Identification of efficiencies; and
- “Going green” through the employment of technologies and practices to reduce natural resource consumption and pollution through:
 - expansion of alternative fuel vehicles;
 - pursuit of energy efficient equipment and facilities; and
 - ensuring environmental excellence inside and out.

Progress to Date

Key projects have been advanced that showcase the potential of sustainability investments. One example is the garage lighting efficiency contract, a self-funding infrastructure improvement that reduces both operational costs and energy and resource consumption. This contract shows the potential for reconceptualization of certain infrastructure investments.

Metro’s Sustainability Initiative

Over the past several years, Metro has moved forward on sustainability investments and:

- Funded garage lighting energy efficiency upgrades through \$1.5 million in annual energy savings (approximately 2% of the Authority’s FY14 natural gas and electric costs);
- Piloted a wayside storage technology that has the potential \$250,000 reduction in traction power expenditure from a single installation;
- Invested in a tub grinder this fiscal year, which will eliminate \$53,000 in landscaping expenses and as much as \$35,000 in waste disposal expenses annually; and
- Accelerated station chiller upgrades throughout the system that generate annual savings of approximately \$15,000 per station.

Recognizing that a project by project approach alone not be sufficient to achieve a meaningful bottom line impact quickly, the Office of Planning (PLAN) has examined ways in which industry-tested sustainability investments might be both financially attractive and implementable at Metro. Staff crafted ambitious but achievable goals for the Authority to achieve by 2025 and tied these goals to specific activities the Authority should undertake to achieve these goals.

This body of work, Metro’s Sustainability Initiative, integrates sustainability into Metro’s business practices and organizational culture. It was developed over the course of several months in coordination with a multi-departmental sustainability working group and key insights from WMATA leadership.

Metro's Sustainability Initiative has four components:

- Business Plan Commitments – Agreed-upon relatively simple actions or commitments to be incorporated into fiscal year 2014 and 2015 business plans for immediate action.
- The State of Metro Sustainability - Highlights Metro’s existing sustainability investments.
- Sustainability Performance Targets – Measurable targets toward which Metro can manage to “green” the Authority.
- Sustainability Lab – Dedicated to identifying and piloting new cost saving technologies for

Authority-wide rollout.

Each of the four components of the Sustainability Initiative demonstrates Metro's commitment to efficient stewardship of public dollars. Through smart and sustainable investments to meet the targets, the Authority can streamline operating costs and continue to build customer satisfaction. By continuing to identify new projects through the Sustainability Lab and supporting existing projects already underway, the Sustainability Initiative provides cost savings and targets operational efficiency throughout the Authority.

Key Highlights:

Sustainability investments are good business practice. Sustainability:

- Drives operating savings,
- Improves the customer experience, and
- Helps the Authority "go green".

Metro has committed to sustainability in *Momentum* under Strategic Goal #4 - Ensuring Financial Stability and Investing in our People and Assets. Metro's Sustainability Initiative is a comprehensive plan to meet that commitment.

Several sustainability projects on which this commitment builds have been initiated to date, including the Garage Lighting Efficiency Contract funded entirely through an estimated \$1.5 million in annual energy savings.

As we move forward, Metro will:

- Integrate sustainability into business plans
- Report on sustainability metric performance
- Share Sustainability Lab outcomes with the public and the transit industry
- A public release that highlights Metro's existing sustainability investments and announces Metro's commitment to sustainability targets.

Background and History:

When sustainability activities were last presented to the board in April of 2012, the case was made for sustainability as good business practice. Sustainable investments:

- Drive operating savings;
- Improve customer experience; and
- Help the authority "be green".

The Board's requests from that meeting were to:

- Integrate sustainability into business practice; and
- Inform the public about sustainable projects.

Since that meeting:

- *Momentum* has committed Metro to sustainability;
- Key projects such as the garage lighting contract have been advanced; and
- Metro has developed its Sustainability Initiative; a comprehensive sustainability plan to green the Authority inside and out.

Discussion:

For information only. See above Description, Key Highlights, Background and History.

FUNDING IMPACT:

For Information	
Project Manager:	Rachel Healy
Project Department/Office:	Chief of Staff/Planning

TIMELINE:

Previous Actions	Board presentation April 2012
Anticipated actions after presentation	Track and report annually on progress toward sustainability targets

RECOMMENDATION:

For information only.



Washington Metropolitan Area Transit Authority

Metro's Sustainability Initiative

Finance and Administration Committee

April 10, 2014



The Business Case for Sustainability

Investments in sustainability are among the most effective ways to achieve operating cost reductions.

Potential Operating Budget Energy Saving Impacts





Sustainability Initiative



FY14/15 Business Plan Commitments

The State of Metro Sustainability

Sustainability Performance Targets

Sustainability Lab



FY14/15 Business Plan Commitments

Commit to lifecycle asset management

Incentivize resource consumption reduction

Introduce "Metro Green" Award

Move to paperless meetings

Create Sustainability Lab

Commit to Energy Star purchasing



The State of Metro Sustainability - Highlight existing investments

Energy-Efficient Station Chillers

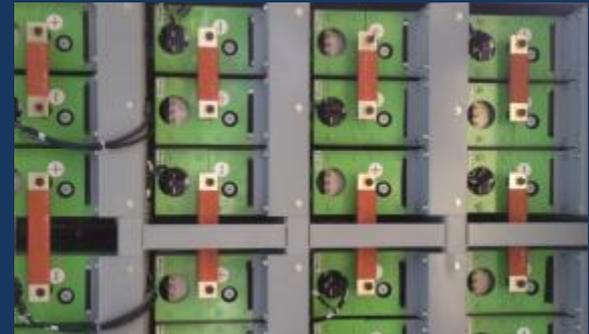
- Savings of \$15,000 annually per station

Wayside Energy Storage

- Saves \$250,000 annually per traction power substation

Net Zero Treatment Facility

- Designed for net zero energy use





Sustainability Performance Targets - Regional

Maximize Ridership

- 25% increase in ridership by 2025
- Increased mode share

Connect Communities

- Increasing share(s) of regional growth within "transit sheds"

Climate Change

- 10% increase in GHG displacement by 2025



Sustainability Performance Targets - Internal

Energy

- 15% reduction in energy use per vehicle mile by 2025

Greenhouse Gas (GHG)

- 50% reduction in GHG emissions per vehicle mile by 2025
- 30% renewable energy (electric) by 2025

Stormwater and Potable Water

- 20% reduction in water use per vehicle mile by 2025
- 100% on site stormwater management

Waste/Supply Chain

- 100% waste diversion rate (zero waste)

FY14 Sustainability Lab Investments

Sustainability Lab

- Identify new cost saving technologies and practices for Authority-wide rollout
- Pilot projects before system roll-out

