

## KING COUNTY METRO TRANSIT 2013 SUSTAINABILITY PLAN PROGRESS REPORT



**M**etro Transit's 2013 Sustainability Plan Progress Report demonstrates to the public and employees how Metro is moving toward our goals for reducing our environmental footprint. Overall, we are making steady progress on the majority of measures, thanks in part to increased ridership and implementation of energy-saving practices and technologies in 2013. Metro achieved gold level recognition as a member of the American Public Transportation Association's Sustainability Commitment in 2013 for efforts to significantly reduce energy use, waste, water use and air pollution.





Every action Metro takes to make transit a more accessible, competitive and attractive transportation option helps to counter climate change and improve quality of life for King County residents. Public transportation plays a critical role in meeting community targets to reduce greenhouse gas (GHG) emissions and climate pollution. Metro's service helps improve regional air quality by displacing four times more GHG emissions than we generate by:














- Taking cars off the road,
- Reducing traffic congestion, and
- Promoting walkable and transit-friendly communities.

While we will continue to adopt new conservation practices and energy efficiency technologies and engage employees in our sustainability program, progress toward our goals will be affected by the level of service Metro is able to provide in the future. Measures related to fleet energy use, GHG emissions from operations, and avoided GHG emissions in the community are normalized by ridership and show improvement when ridership grows. We will be monitoring our progress toward our goals and working with Metro's Sustainability Steering Committee to identify challenges and opportunities for continuous improvement.

## 2013 PROGRESS REPORT

**SYMBOLS**— intended to give a general indication of how well we're meeting our goals.

-  Meeting or approaching goal
-  Opportunity to improve
-  Stable
-  N/A, just one year of data, or trend not easily defined

MEASURES		TREND
<b>GOAL 1: ENERGY EFFICIENCY AND CONSERVATION</b>		
1	Reduce energy use from buildings and facilities	
2	Reduce energy use from vehicle fleets	
<b>GOAL 2: CLIMATE POLLUTION REDUCTION</b>		
1	Reduce total GHG emissions	
2	Increase total GHG emission displacement	
3	Reduce motorbus fleet criteria air pollutant emissions	
<b>GOAL 3: WATER CONSERVATION</b>		
1	Reduce water use	
<b>GOAL 4: WASTE MANAGEMENT</b>		
1	Reduce solid waste disposal	
2	Increase diversion of solid waste from landfills through reuse and recycling	
3	Increase the diversion rate for construction and demolition materials	
4	Purchase 100 percent recycled content for all copy paper	
<b>GOAL 5: RIDERSHIP GROWTH</b>		
1	Increase passenger boardings	
2	Reduce vehicle miles traveled	
3	Reduce the drive-alone commuting rate	

All targets are compared to a 2009 baseline unless otherwise noted and normalized for passenger boardings, vehicle miles traveled, square footage of Metro buildings, etc.

## ENERGY EFFICIENCY AND CONSERVATION

**GOAL:** Reduce consumption of energy, including diesel fuel, gasoline, electricity and natural gas, and transition to cleaner and renewable energy sources.

	TARGET	2013 STATUS
<b>FACILITY ENERGY USE</b>	Reduce energy use from buildings and facilities by at least: <ul style="list-style-type: none"> <li>• 10 percent by 2012</li> <li>• 15 percent by 2015</li> <li>• 20 percent by 2020</li> </ul>	–17% <sup>1</sup>
<b>FLEET ENERGY USE</b>	Reduce energy use from vehicle fleets by at least 10 percent by 2015	–6% <sup>2</sup>

<sup>1</sup>Facility energy use data normalized for square footage only; future reports may normalize for weather and square footage.

<sup>2</sup>Revenue fleet energy use only.

## 2013 ACHIEVEMENTS

- ✓ Completed energy efficiency upgrades projected to save more than 3 million kWh and \$163,000 each year. That's enough electricity to power almost 300 homes for one year.
  - › Completed lighting upgrades at all five Downtown Seattle Transit Tunnel stations, estimated to save more than 477,000 kWh and \$30,000 in utility costs each year.
  - › Upgraded lights in the North Base parking garage from metal halide to LED. These LED lights are expected to save more than 5,000 kWh/year.



Cindy Hudson, Daphne Dilley and Syd Pawlowski from Rideshare Operations received the 2013 Alternative Fuels Spirit Award

- ✓ Installed submeters at three transit facilities—South Base, Component Supply Center and East Base—to segregate electrical and gas metering of individual buildings and major system components. Submetering enables discreet analysis of individual buildings, their systems and functions to identify opportunities to reduce energy use.
- ✓ Completed energy audits at the Central and Atlantic maintenance buildings and identified additional opportunities to reduce energy use.
- ✓ Began development of a Facility Energy Reduction Plan with specific energy efficiency and conservation strategies for Metro facilities and operations.
- ✓ Worked with an Environmental Defense Fund fellow to audit the Atlantic Base Fuel and Wash building. The audit determined that installing variable frequency drives on our cyclones was a good energy conservation measure; a pilot project demonstrated a short payback time with good energy savings.
- ✓ Staff attended training sessions on energy auditing and assessments, low-cost energy- and water-saving actions, cost-effective energy investments, and King County's Green Operations and Maintenance Guidelines Handbook.

## CLIMATE POLLUTION REDUCTION

**GOAL:** Significantly reduce greenhouse gas and criteria air pollutant emissions and displace increasing percentages of community-generated GHG emissions from transportation.

	TARGET	2013 STATUS
GHG EMISSIONS	Reduce total GHG emissions by at least: <ul style="list-style-type: none"> <li>• 15 percent by 2015</li> <li>• 25 percent by 2020</li> <li>• 50 percent by 2030</li> </ul>	– 7%
GHG DISPLACEMENT	Increase total GHG emission displacement by at least 5 percent by 2015	+ 2%
CAP EMISSIONS <sup>1</sup>	Reduce motorbus fleet criteria air pollutant emissions by at least 10 percent by 2015	– 48%

<sup>1</sup>CAP=Criteria air pollutant

### 2013 ACHIEVEMENTS

- ✓ Improved the energy efficiency of our motorbus fleet by more than 1% in 2013 compared to the past three years.
- ✓ Increased percentage of motorbus fleet that is hybrid or electric to 63% as part of effort to phase out all remaining diesel buses.
- ✓ Received the *2013 Western Washington Clean Cities Alternative Fuels Spirit Award* for leadership and considerable achievements in promoting the use of alternative fuels in Western Washington and commitment to developing the nation's first all-electric and cost-effective "metropool" program in King County.
- ✓ Completed the garage for the South Kirkland transit-oriented development, which will concentrate housing and a transit hub to reduce the need to drive or own a vehicle.





Low-water-use landscaping at the South Kirkland Park & Ride.

## WATER CONSERVATION

**GOAL:** Reduce water consumption.

	TARGET	2013 STATUS
WATER USE	Reduce water use by 5 percent by 2015	– 33%

### 2013 ACHIEVEMENTS

- ✓ Replaced 37 existing plumbing fixtures with high-efficiency fixtures at North Base. These upgrades, partially funded with incentive payments by the Saving Water Partnership, will significantly reduce water use and wastewater generation.
- ✓ Installed drought-tolerant landscaping at the South Kirkland Park-and-Ride garage.
- ✓ Continued to use reclaimed water for bus washing activities.

## WASTE MANAGEMENT

**GOAL:** Reduce and reuse material waste.

	TARGET	2013 STATUS
SOLID WASTE	Reduce solid waste disposal by at least 5 percent by 2015 <sup>1</sup>	– 40%
MATERIAL REUSE AND RECYCLING	Increase diversion of solid waste from landfills through reuse and recycling by at least: <ul style="list-style-type: none"> <li>• 7 percent by 2015</li> <li>• 15 percent by 2020</li> <li>• 30 percent by 2030<sup>1</sup></li> </ul>	+26%
CONSTRUCTION AND DEMOLITION WASTE	Increase the diversion rate for construction and demolition materials to: <ul style="list-style-type: none"> <li>• 80 percent diversion rate by 2016</li> <li>• 85 percent diversion rate by 2025</li> </ul>	NA <sup>2</sup>
ENVIRONMENTALLY PREFERABLE PURCHASING	<ul style="list-style-type: none"> <li>• Purchase 100 percent recycled content for all copy paper</li> </ul>	41% of copy paper purchased met requirement

<sup>1</sup> Compared to a 2003 baseline

<sup>2</sup> To be tracked beginning in 2014

### 2013 ACHIEVEMENTS

- ✓ Launched the use of reusable absorbent pads at six transit bases, reducing waste and saving approximately \$35,000 per year.
- ✓ Completed many repairs and paving replacements at several transit facilities using 20-30% recycled asphalt, reused demolition materials (asphalt grindings, crushed concrete and soil) and used slag—a recycled industrial product—in concrete.
- ✓ Initiated public recycling at several passenger facilities and “cyclone” waste recycling for South Base.



Reusable absorbent pads are used in vehicle maintenance shops.

- ✓ Delivered more than 200 hybrid battery packs to Surplus for auction and reuse instead of sending them to California for recycling.
- ✓ Staff participated in training sessions on green building and sustainable development techniques, the integrative process, and life cycle cost assessments.

## RIDERSHIP GROWTH

**GOAL:** Expand transit ridership and reduce vehicle miles traveled.

	TARGET	2013 STATUS
RIDERSHIP EXPANSION	Increase passenger boardings to: <ul style="list-style-type: none"> <li>127 million passenger boardings by 2015</li> <li>142 million passenger boardings by 2020</li> <li>225 million passenger boardings by 2040</li> </ul>	122 million boardings
VEHICLE MILES TRAVELED <sup>1</sup>	Reduce vehicle miles traveled by 10 percent below 2011 levels by 2015	+10%
DRIVE-ALONE RATE <sup>1</sup>	Reduce the drive-alone commuting rate by 10 percent below 2011 levels by 2015	+3%

<sup>1</sup> For King County Commute Trip Reduction (CTR) program employers only; 25% of employer responses are not yet included in 2013 data.

## 2013 ACHIEVEMENTS

- ✓ Increased Metro Transit ridership by 2.8% over 2012.
- ✓ Conducted “Spot What’s Hot” travel options campaigns in Auburn, Federal Way and Kent, with offers of an ORCA card loaded with \$10 E-purse value, a custom map, and a “Get You There” web page for each city. Over 2,700 residents, workers and college students took the pledge to reduce their drive-alone trips. Sixty percent of them did not previously have an ORCA card, indicating they had not been regular riders. Participants took 35,000 transit trips in nine months and loaded more than \$48,000 to their cards after Metro’s initial grant-funded \$10 was used.
- ✓ Increased ridership for the ORCA Passport program, in which employers purchase transit passes for their employees:
  - ▶ The number of business accounts in the region increased from 1,600 to more than 1,700.
  - ▶ Metro ORCA Passport boardings exceeded 30 million, a 9% increase from 2012.
  - ▶ Regional ORCA Passport boardings exceeded 46 million, a 10% increase from 2012.

2,700 participants pledged to reduce their drive-alone trips in Auburn, Federal Way and Kent.

Check out the new Auburn map and other travel tools at [kingcounty.gov/GetYouThere/Auburn](http://kingcounty.gov/GetYouThere/Auburn)

**Tap It**  
Explore Auburn on the bus with a complimentary ORCA card – a \$15 value.  
Here's how easy it is to get yours:  
1 Fill out the attached mail-back card or register online.  
2 We'll send you an ORCA card (a \$5 value) that's preloaded with \$10 for travel!  
3 Pledge to use your ORCA card within two weeks of receiving it.  
4 Take the email survey that will be sent to you about 3 weeks after you receive your card and you'll be automatically entered into a drawing to win \$25 in transit fare.  
Save a trip to the mailbox and register for your free ORCA card at [kingcountymetro.org/spotwhatshotauburn/register](http://kingcountymetro.org/spotwhatshotauburn/register).  
\*For riding buses, trains and ferries in Auburn and all over Puget Sound. Offer is available to adults who live, work or go to school in Auburn. For questions about the promotion, email [metropromo@kingcounty.gov](mailto:metropromo@kingcounty.gov) or call 206-477-8066.

**Try a New Way to Spot the Best of Auburn**

**Bike it**  
More than 23 miles of trails

**Bus it**  
12 bus and train routes

**Spot What's Hot in Auburn**

King County METRO We'll Get You There

**More spots to see More ways to see them**  
Hop a bus to historic downtown Auburn for coffee or on your appointments. Enjoy an easy walk to the Farmer's Market and the new downtown Sculpture Gallery. You can take the Interocean Trail to work or school and bypass traffic. Or catch a DART ride to the mall. Give your car, the environment and your wallet a break. Explore at least one new way to get out and enjoy the neighborhood this week!

**Tap it**  
orca

**Pedal it**

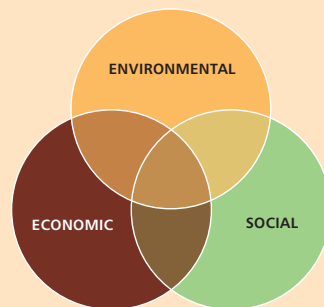
**Walk it**

**Find it**  
Spot your options at [kingcounty.gov/GetYouThere/Auburn](http://kingcounty.gov/GetYouThere/Auburn)

Tap into new tools and a Free ORCA card!

## THE PILLARS OF SUSTAINABILITY

At Metro, sustainability means reconciling environmental, economic and social demands—the “three pillars” of sustainability. We establish practices that address goals for environmental protection, economic growth and social equity. While our Sustainability Plan focuses primarily on resource conservation and pollution prevention, we noted some important achievements in 2013 with respect to equity, social justice and economic sustainability.



The Three “Pillars”  
of Sustainability

### 2013 Social Equity and Economic Sustainability Highlights

- ✓ Developed proposal for a low-income fare.
- ✓ Launched the mobile ORCA sales program to increase access to ORCA cards for diverse populations and underserved areas of King County.
- ✓ Met every request for an Access trip for people with disabilities who cannot use regular bus service.
- ✓ Increased the number of bus stops that are wheelchair accessible to 78%.
- ✓ Launched the Partnership to Achieve Comprehensive Equality, a commitment by Metro Transit, Amalgamated Transit Union Local 587 and Professional and Technical Employees Local 17 to create an environment for positive change, improved communication among all employees, and a workforce committed to equity as a shared core value.
- ✓ Decreased cost per passenger mile by 3.1% as Metro carried more riders.



## MOVING FORWARD

Metro’s sustainability program will continue to focus on employee engagement, resource conservation, reduced GHG emissions, and opportunities to increase ridership in a challenging financial environment. While the majority of measures showed improved or stable performance in 2013, one target showed an opportunity for improvement when compared to 2012: the purchase of 100% recycled content office paper.

The percentage of total copy paper purchases that had 100% recycled content were higher in 2013 than the 2011 baseline, but fell slightly in 2013 compared to 2012. Metro will share status updates twice a year with staff members responsible for purchasing copy paper, and will regularly communicate about the need to both decrease total paper use and purchase 100% recycled content paper.

Energy conservation, water conservation and waste reduction efforts have yielded significant savings at Metro facilities, and we will evaluate them for opportunities to continually improve, with an emphasis on employee education and behavior changes. Efforts to reduce fleet energy use and climate pollution will be aided by the delivery of new zero-emission electric trolleys and more energy-efficient hybrid buses in the next few years. However, community GHG emissions will be affected by the level of service Metro is able to provide. We will continue creating opportunities to increase the proportion of travel in King County that uses public transportation, and to increase the efficiency of our services and facilities.



## METRO PROTECTS THE ENVIRONMENT

Operating the nation's second largest fleet of zero-emission electric buses uses less energy, reduces pollution, and makes for healthier communities.

Transit takes **175,000** cars off the road each weekday, which keeps our air cleaner.



**70** MILLION  
GALLONS OF  
GASOLINE  
SAVED



ENOUGH TO POWER THE DRIVING HABITS  
OF EVERY HOUSEHOLD IN BELLEVUE  
AND KENT FOR A YEAR.

**1.4** BILLION  
FEWER VEHICLE MILES  
LOGGED ON LOCAL ROADS



**600,000**  
FEWER METRIC TONS OF CO<sub>2</sub>  
RELEASED INTO THE AIR

EQUAL TO:  
**15** MILLION TREES  
PLANTED & GROWN FOR 10 YEARS

BY THE NUMBERS: **METRO'S** ENVIRONMENTAL BENEFITS (NET ANNUAL)

For more information visit: <http://metro.kingcounty.gov/am/sustainability>



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