

Southeastern Pennsylvania Transportation Authority

Sustainability Program Initiatives

Public Transportation & The Environment

- In comparison to the average car:
 - A bus with just 7 passengers is more fuel-efficient
 - A full bus is 6 times more efficient
 - A full train is 15 times more efficient
- If 1 in 10 Americans used public transportation regularly, U.S. reliance on foreign oil could be cut by more than 40%.



Public Transportation & The Environment



- Public transit produces 95% less CO per passenger mile than private vehicles.
- In Philadelphia, just 3.5% of CO emissions come from diesel-powered vehicles such as SEPTA's standard buses. Whereas, gas-powered cars give off 63%.

Source: Clean Air Council & APTA

SEPTA & Sustainability

- Sustainability is 1 of 7 key strategic objectives in the FY 2010-2014 Strategic Business Plan.
- SEPTA is a sustainability solution and an asset to the region.
 - Contributes to the environmental, social and economic sustainability of the region.

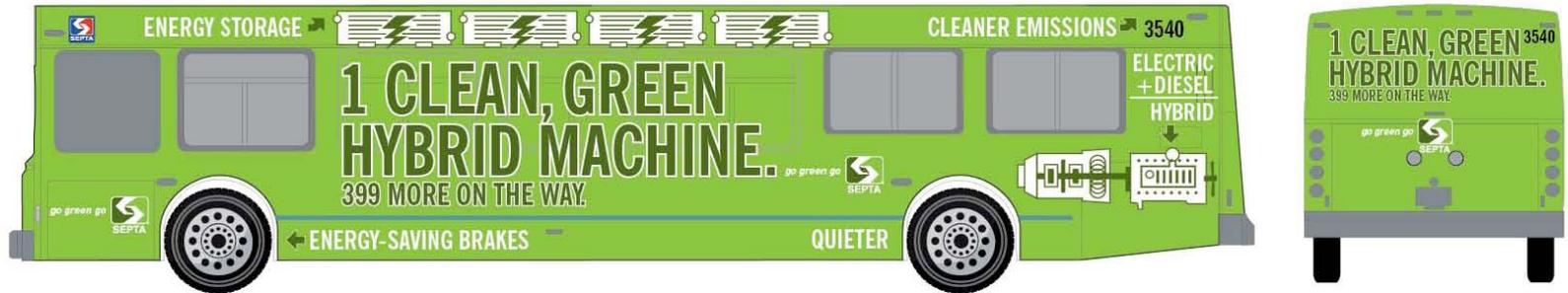


Environmental Sustainability

- Go Green Campaign
 - Clean Fuel Bus Program
 - 460 Hybrid-Electric Buses over the next four years
 - Replace diesel buses which are more than 12 years old
 - Serve all five Southeastern Pennsylvania Counties
 - Total Cost - \$250 million



Environmental Sustainability



- Clean Fuel Bus Program – cont'd:
 - Benefits:
 - 14% improved fuel consumption
 - 56% decrease in nitrogen oxide, an ozone precursor
 - 96% decrease in particulate matter
 - Batteries provide acceleration and climbing power
 - Quieter operation
 - Improved drive system life

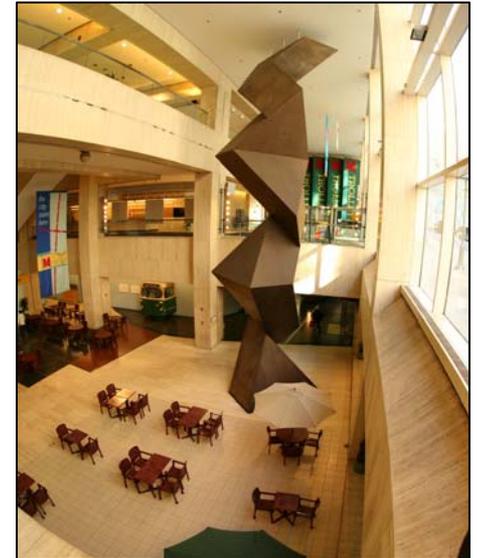
Environmental Sustainability

- Go Green Campaign – cont'd:
 - Silverliner V:
 - Acquire 120 new regional rail cars
 - Replace Silverliner II and III rail cars, which are 40 to 44 years old
 - Provide additional cars in response to current and projected ridership increases
 - Benefits:
 - Regenerative Braking for Energy Efficiencies



Environmental Sustainability

- Green Building Efforts at 1234 Market:
 - Environmental stewardship:
 - Motion switches
 - LED fixtures
 - Steam regeneration
 - No-VOC paints
 - Daytime cleaning
 - Recycled carpeting
 - Recycling program
 - Seeking LEED certification





Environmental Sustainability

- Green Technologies System-Wide –
Reduce, Re-use & Recycle Program:
 - Conversion of lighting systems in subways, shops and signals
 - Installation of new boilers and chillers for fuel efficiency
 - Recycling program at stations and shops
 - Use of renewable and recyclable materials
 - Recycling of batteries from buses, trains and signals
 - Reclamation of water on vehicle washers
 - Tie disposal via cogeneration facility
 - Safe waste material disposal

Environmental Sustainability

- Green Technologies System-Wide –
Reduce, Re-use & Recycle Program:
 - On the Horizon:
 - System-wide energy audit
 - Revision of construction contract language
 - Development of SEPTA's Sustainability Program Plan

Economic Sustainability

- Part of region's economic competitiveness
 - Transit infrastructure
 - Major regional employer
 - Contracts in excess of \$536 million
- Financial Health
 - Dedicated funding
 - Fiscal responsibility and accountability
 - Cost efficiencies through new technologies

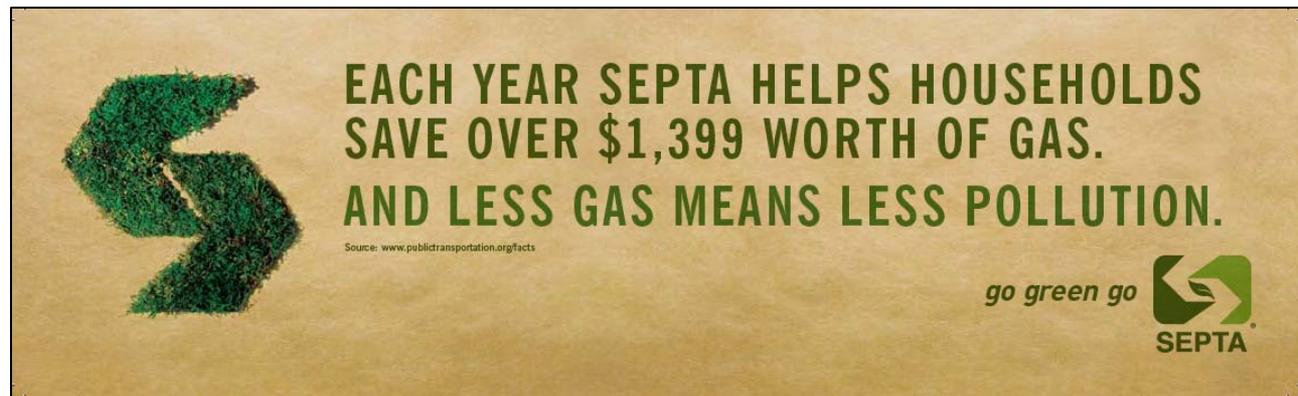
Social Sustainability

- Transit-oriented Development (TOD)
 - Creation of compact, livable communities centered around transit centers for mixed-used purposes.
 - Examples:
 - 1234 Market St. – SEPTA HQ
 - Comcast Center
 - Cira Center
 - 46th & Market (proposed)
 - Temple University (proposed)
 - Bryn Mawr (proposed)



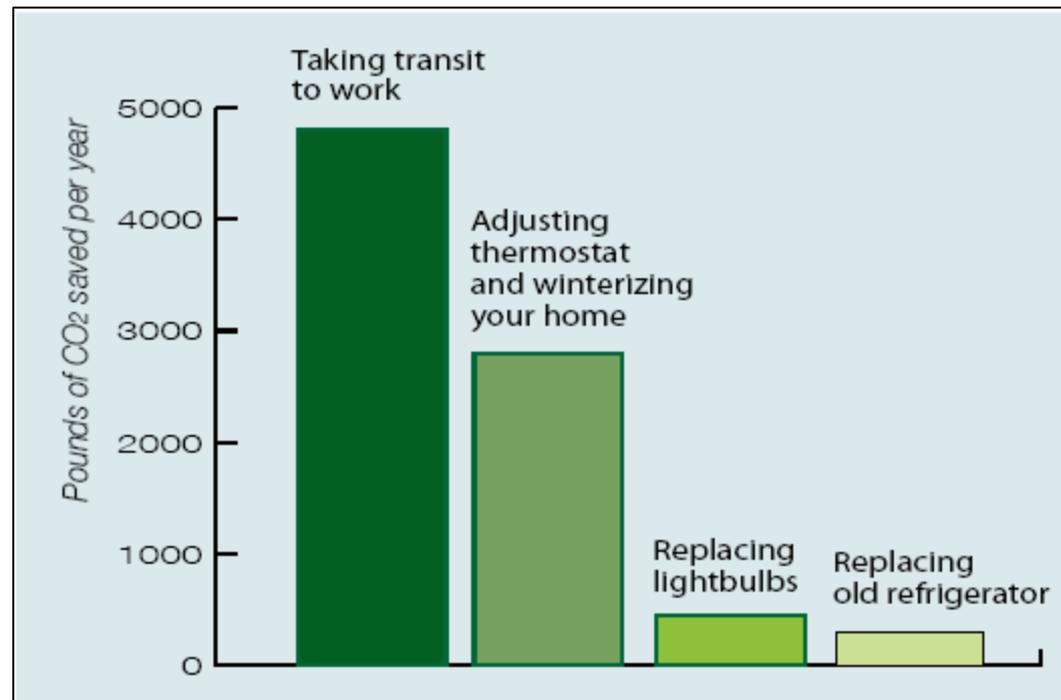
Awareness Campaign

- Go Green Go SEPTA
 - Public education program to promote that SEPTA is key player in reducing the region's air pollution.
 - Communications vehicles:
 - Community events
 - Strategic partnerships
 - Advertising



Awareness Campaign

- Go Green Go SEPTA – Continued:
 - Value Proposition:



Commuting by public transportation — one of the most significant actions to reduce household carbon emissions.

Source: APTA

Awareness Campaign

- Go Green Go SEPTA – Continued:
 - Message - “SEPTA is Green. Riding SEPTA enables me to help promote a cleaner environment.”
 - Objectives:
 - Primary messaging - Leave your car behind.
 - Focus on resource conservation.
 - Secondary messaging - Support SEPTA’s “Green” mission.
 - Educate non-riders to recognize SEPTA riders as truly helping improve our environment for us all.



**RIDING SEPTA
HELPS LOWER
GREENHOUSE
GAS EMISSIONS
BY 50%.**

**MAKING YOU FEEL
A LITTLE MORE,
WELL, GREEN.**

go green go 
SEPTA

Public transportation produces 50% less greenhouse gas emissions than private vehicles. So when you choose to leave your car behind and ride SEPTA, you're choosing the route to a greener tomorrow. And that's something to be proud of. To find your SEPTA route, visit www.SEPTA.org or call 215-580-7800.

Source: www.publictransportation.org/50

Awareness Campaign



HOW IS SEPTA HELPING THE REGION GO GREEN?

We know it's not only up to you to help make this world a greener place. That's why SEPTA has launched "Go Green Go SEPTA," a multifaceted awareness initiative to educate riders — and non-riders — about the eco-benefits of choosing public transportation.

Here are some other ways SEPTA is helping the region go green:

- SEPTA currently has 32 diesel-electric hybrid buses on the road, and 400 more will begin rolling in this summer.
- In 2007, SEPTA retrofitted its entire bus fleet to operate on cleaner, ultra low-sulfur fuel.
- SEPTA's Bike and Ride program helps you leave your car at home and reach your final destination with ease. For details visit www.septa.org/service/bike_ride
- SEPTA is joining the Clean Air Council and other partners to make going green easier.

SO WHAT CAN I DO?

- GET MOVING.** If SEPTA is already part of your regular commute, keep it up. If not, give it a try. Even if you only ride SEPTA a few days a week, you can make a difference.
- KEEP LEARNING.** Explore how making little changes in your daily routine — in addition to riding public transportation — can help. Going green may be easier than you think.
- PASS IT ON.** Tell your colleagues, peers and family members how easy it is to go green on SEPTA.
- GET INVOLVED.** Volunteer with one of SEPTA's green partners, like the Clean Air Council.

Choose your route to a greener tomorrow, today. To read more, visit www.cleanair.org or any of these informative sites:

www.publictransportation.org
www.nrdc.org
www.edf.org
www.dvrpc.org
www.airqualitypartnership.org



NEXT STOP: GREEN



www.SEPTA.org



Awareness Campaign

GREEN ISN'T JUST A COLOR ANYMORE. IT'S A MOVEMENT.

A rallying cry to promote environmental consciousness. A personal commitment by each of us to help protect the Earth on which we all live.

Without realizing it, you may already be doing your part to "Go Green." By simply choosing to ride SEPTA instead of driving, your actions are helping minimize the negative impact we have on the environment.

It's that easy.

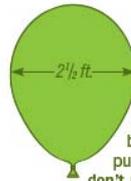
Whether you take a bus, train, trolley or the subway, you're choosing more energy-efficient transportation and reducing pollution and greenhouse gas emissions. And that's something to be proud of.



BUT I'M JUST ONE PERSON.

Do I really make an impact by riding SEPTA each day? Absolutely.

By switching your daily commute to riding public transportation, you can reduce the environmental impact of your commute by up to one-third. Scientists say this reduces your CO₂ emissions by 20 pounds a day, or more than 4,800 pounds per year.¹



SO WHAT DOES ALL THAT MEAN?

PICTURE THIS: one pound of CO₂ in the atmosphere takes up about as much space as a balloon that's 2.5 feet in diameter. Now imagine 20 of these balloons filling your living room. By riding public transit, this is the amount of CO₂ you don't release into the atmosphere every day.

And remember, that's just your contribution. There are more than 400,000 SEPTA riders eliminating thousands of pounds of harmful emissions daily, too.

Now that's an impact!



THE POWER OF PUBLIC TRANSPORTATION.

FACT: The United States is the world's largest source of global warming pollution, with the transportation sector as the second largest contributor of pollution in the U.S.

However, public transportation systems like SEPTA are net CO₂ reducers. That means they help reduce emissions and combat the effects of global warming.

Did you know?

- ✦ A big bus with just seven passengers is more fuel-efficient than the average car.
- ✦ A full bus is six times more efficient.
- ✦ A full train is 15 times more efficient.²

SEPTA has more than 2,600 buses, trolleys, subway cars, trains and paratransit vehicles in operation. And SEPTA traveled more than 92 million miles last year. That's a lot of routes to a greener tomorrow.

¹American Public Transportation Association (APTA), "Public Transportation's Contribution to U.S. Greenhouse Gas Reduction," September 2007

^{2,3}Clean Air Council

⁴ICF International, 2007: "Public Transportation and Petroleum Savings in the U.S.: Reducing Dependence on Oil."

⁵APTA



WHY IT REALLY MATTERS.

The impact of choosing SEPTA extends beyond environmental benefits. It can affect our everyday lives in many ways.

- ✦ If just one in ten Americans used public transportation regularly, U.S. reliance on foreign oil could be cut by more than 40%.³
- ✦ A two-worker household can save approximately \$6,251 per year by taking public transportation instead of driving cars.⁴

As individuals and working together, we've got the power to make a difference.

When you switch your daily commute to public transportation, your annual carbon savings is more than weatherizing your home, adjusting your thermostat, replacing five incandescent bulbs with fluorescent lamps, and installing an energy-efficient refrigerator – combined!⁵

Awareness Campaign

MEET THE ECO-HAPPY HYBRIDS OF SEPTA.



It's true. SEPTA can proudly say it has an impressive fleet of Hybrid Buses already out on the streets. But how do they work, you ask?

SEPTA's Hybrid Buses have the ability to refresh their own battery banks by using the normally wasted energy of braking. When the brakes are applied, the energy normally dissipated as heat in a conventional bus is redirected to charge the energy storage system installed on the roof to help power the bus. The introduction of these Hybrid Buses has allowed SEPTA to significantly reduce engine exhaust emissions and increase fuel economy.

But the Hybrid Buses are only one facet of all the good SEPTA is doing on the green front. Read on for more of SEPTA's campaign for emitting less bad stuff, and more feel-goodness.



WHY RIDING SEPTA ISN'T JUST ENVIRONMENTALLY CONSCIOUS, IT'S A NO-BRAINER.

SEPTA's standard buses deserve some energy-efficient love too. That's because all of SEPTA's standard buses use ultra clean low-sulfur fuel. And don't forget that taking any of SEPTA's travel options, from the subway to the trolleys, means a lighter carbon footprint for our area and the world.

It all adds up to arguably one of the most energy efficient large-city public transit systems in the nation. It's true — you literally go green by taking SEPTA.

STILL NEED CONVINCING? CHECK OUT THESE GREEN FACTS FROM THE CLEAN AIR COUNCIL:

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If one in ten Americans used public transportation regularly, U.S. reliance on foreign oil could be cut by more than 40%.

Public transit produces 95% less carbon monoxide (CO) per passenger mile than private vehicles.

In Philadelphia, just 3.5% of CO emissions come from diesel-powered vehicles such as SEPTA's standard buses. Whereas gas-powered cars give off 63%.

COMMUTING ON SEPTA MAKES A WORLD OF DIFFERENCE. TO LEARN MORE ABOUT RIDING ON SEPTA, VISIT WWW.SEPTA.ORG



Sources: <http://www.globalwarming-solutions.org/publictransportation.php> (Environmental Law & Policy Center); http://www.septa.com/media/releases/earth_day.cfm (APFD); www.publictransportation.org (NFTA); Scorecard: the Pollution Information Site (<http://www.scorecard.org/index.txt>)

go green go



Questions & Answers

Thank you for your time.