



# 2017 Sustainability Progress Report

Building a better tomorrow **JUNE 2018**

2017



# Sustainability

## What does sustainability mean to Sound Transit?

Sustainability is about making long-term investments and choices that keep the region's environment, communities and economy healthy. For Sound Transit, sustainability is about fulfilling the agency's mission to provide regional transit, as well as how that mission is accomplished. Sound Transit organizes its sustainability efforts to:

- Help **people** move freely and affordably by providing regional transit.
- Promote stewardship to conserve the **planet's** natural environment.
- Support local economic **prosperity** by enabling residents and businesses to save time and money.



Sound Transit implements sustainability through a robust **Environmental and Sustainability Management System (ESMS)**. This system holds the agency accountable for controlling potential environmental impacts, achieving annual environmental and sustainability targets, and demonstrating continual improvement in performance. Since 2007 Sound Transit has been among a select number of transit agencies nationwide to achieve international ISO 14001 certification of its ESMS.

## About this report

Sound Transit's Environmental Policy asks that staff update the board and the public annually on the progress of its environmental compliance and sustainability efforts. The Sustainability Division reports on quantitative and qualitative progress towards the agency's long-term and short-term sustainability goals and the annual sustainability targets that are formulated to reach those goals.

**Sustainable Business Practices and strategies will be integrated throughout the Sound Transit organization, including planning, designing, constructing, and operating existing and new transit systems and facilities. ST Executive Order No. 1, 2007**

## Sound Transit's Sustainability Division is responsible for:

- Developing and implementing the agency's overarching sustainability strategies and policies.
- Tracking and reporting on sustainability progress by all agency departments and divisions.
- Administering the agency's Environmental and Sustainability Management System, which covers all agency activities.
- Implementing environmentally-focused sustainability goals and targets.

# Transit is sustainable

## RIDING TRANSIT

### Improving regional quality of life

Sound Transit's mission to build, operate and expand the regional transit system is essential to Central Puget Sound's sustainable future. Sound Transit promotes sustainability by developing the regional transit system and fostering smart growth.

The agency's capital expansion plan enables more people to travel affordably and reliably on environmentally friendly buses and trains throughout the region's growing communities. Expanding mass transit services benefits everyone by reducing the number of cars on the road, which decreases air and water pollution, among other benefits.

**SAVES TIME**



**SAVES FUEL**



**SAVES MONEY**

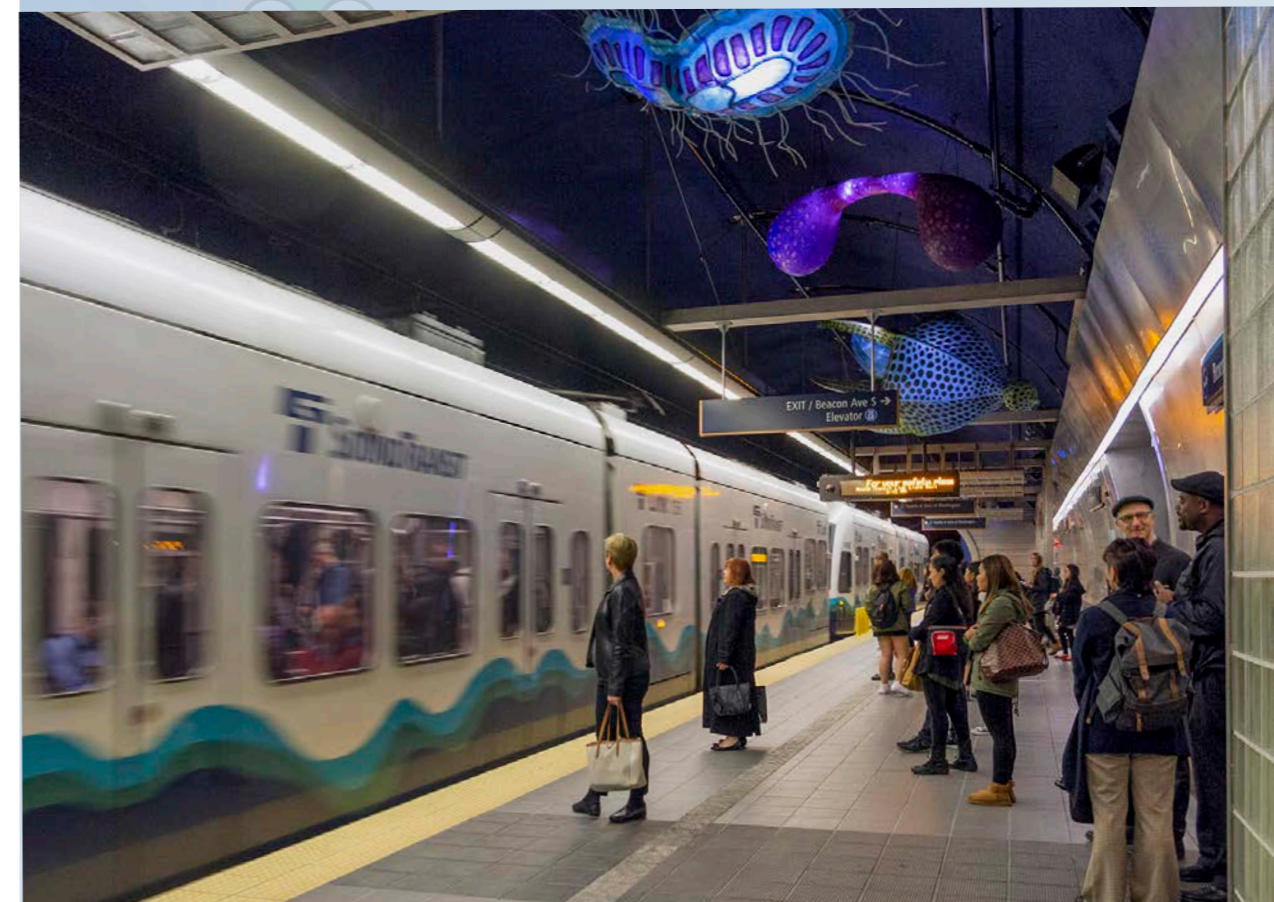


**IMPROVES  
AIR QUALITY**

### Key Accomplishments

In 2017 Sound Transit achieved a number of important sustainability accomplishments that leverage social, environmental and financial benefits for the region's future. The agency:

- Diverted over 425,000 tons of greenhouse gas emissions – 5% more than in 2016 – when riders chose transit instead of driving.
- Signed an agreement with Puget Sound Energy to purchase 100% clean, green power for Link Light Rail starting in 2019.
- Updated the Environmental and Sustainability Management System to the new ISO 14001:2015 standard.
- Earned Leadership in Energy and Environmental Design (LEED) Gold status for the Angle Lake Link Station – the agency's first green building facility to be certified to LEED.



# People

Help people move freely and affordably by providing regional transit

## Significantly growing ridership

Increasing ridership is the most sustainable accomplishment Sound Transit can achieve as an agency. More people than ever in the Central Puget Sound are choosing transit to get to where they need to go. More than 47 million people rode Sound Transit trains and buses in 2017, a 10 percent systemwide increase over 2016 ridership rates.

*"As more people chose the Pacific Northwest as a place to live and work, last year more commuters rode public transit."*

*Dave Somers, BOARD CHAIR AND SNOHOMISH COUNTY EXECUTIVE*

**+10%** RIDERSHIP GROWTH SINCE 2016

**+87%** RIDERSHIP GROWTH SINCE 2011

**+22%** INCREASE IN LIGHT RAIL RIDERSHIP DECEMBER 2015 - 2016

**47 million**

ANNUAL RIDES 



## Building workplace diversity

In 2017 Sound Transit established a new Office of Equal Employment Opportunity, Equity and Inclusion.

"As Sound Transit grows to accomplish an ambitious regional transit expansion, it is imperative that we continuously strengthen the alignment of diversity and inclusion to our overall strategic plan," said CEO Peter Rogoff.

The office focuses on achieving Sound Transit's goal of growing and sustaining a diverse workforce, inclusive culture and an equitable work environment.

## Bringing affordable housing to the region

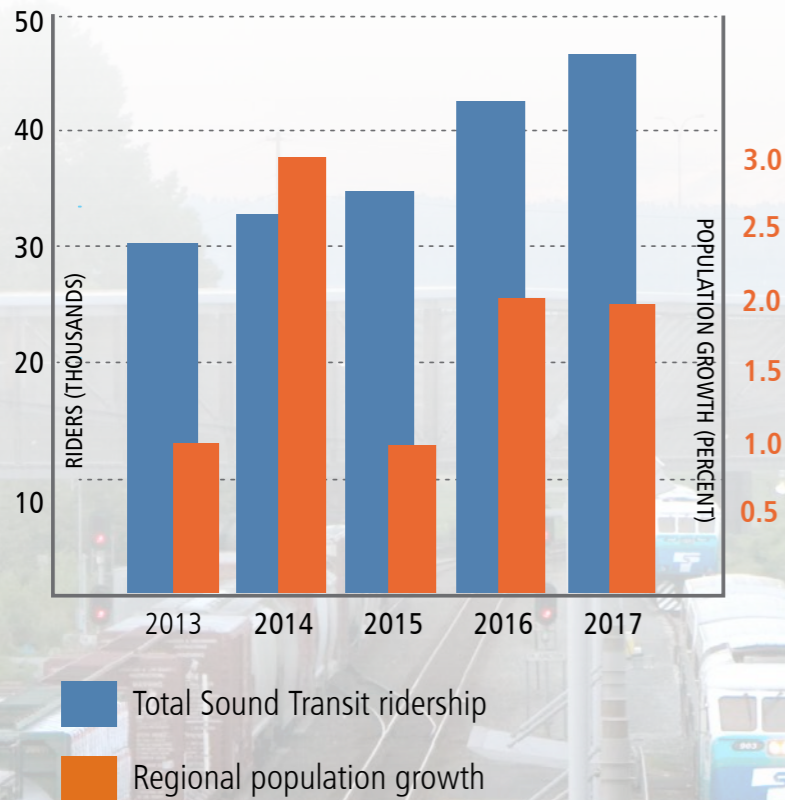
Sound Transit's board selected development groups to deliver mixed-use affordable housing projects on three Sound Transit owned surplus properties in 2017. These projects anticipate creating over 600 units of affordable housing in transit oriented developments for residents making up to 60 percent of King County's median income. Each of these projects is located in a different Seattle neighborhood – First Hill, Capitol Hill and Roosevelt. These developments make good on Sound Transit's promise to implement an equitable transit oriented development strategy on its properties, support development that is inclusive, and create a mix of housing, businesses and other amenities close to transit.



# People

Help people move freely and affordably by providing regional transit

## RIDERSHIP INCREASING FASTER THAN REGIONAL POPULATION GROWTH



## Bicycle and pedestrian improvement at Kent and Auburn stations

In 2017 Sound Transit worked to increase options for nonmotorized access to transit. The Sound Transit Board approved a package of pedestrian, bicycle and transit access improvements at both Kent and Auburn Sounder stations. As ridership on the Lakewood-to-Seattle line continues to grow, ensuring passengers can adequately and safely access stations remains a priority for Sound Transit.

## Living up the commute

More live music and performance is on tap for light rail riders. Sound Transit expanded its street performance program in 2017 to support the unique character of the neighborhoods served by Link. Musicians and other performers are now permitted to entertain riders at the University of Washington and Capitol Hill Link light rail stations as well as the Beacon Hill, Mount Baker, Columbia City, Othello, Tukwila International Boulevard and Angle Lake facilities.



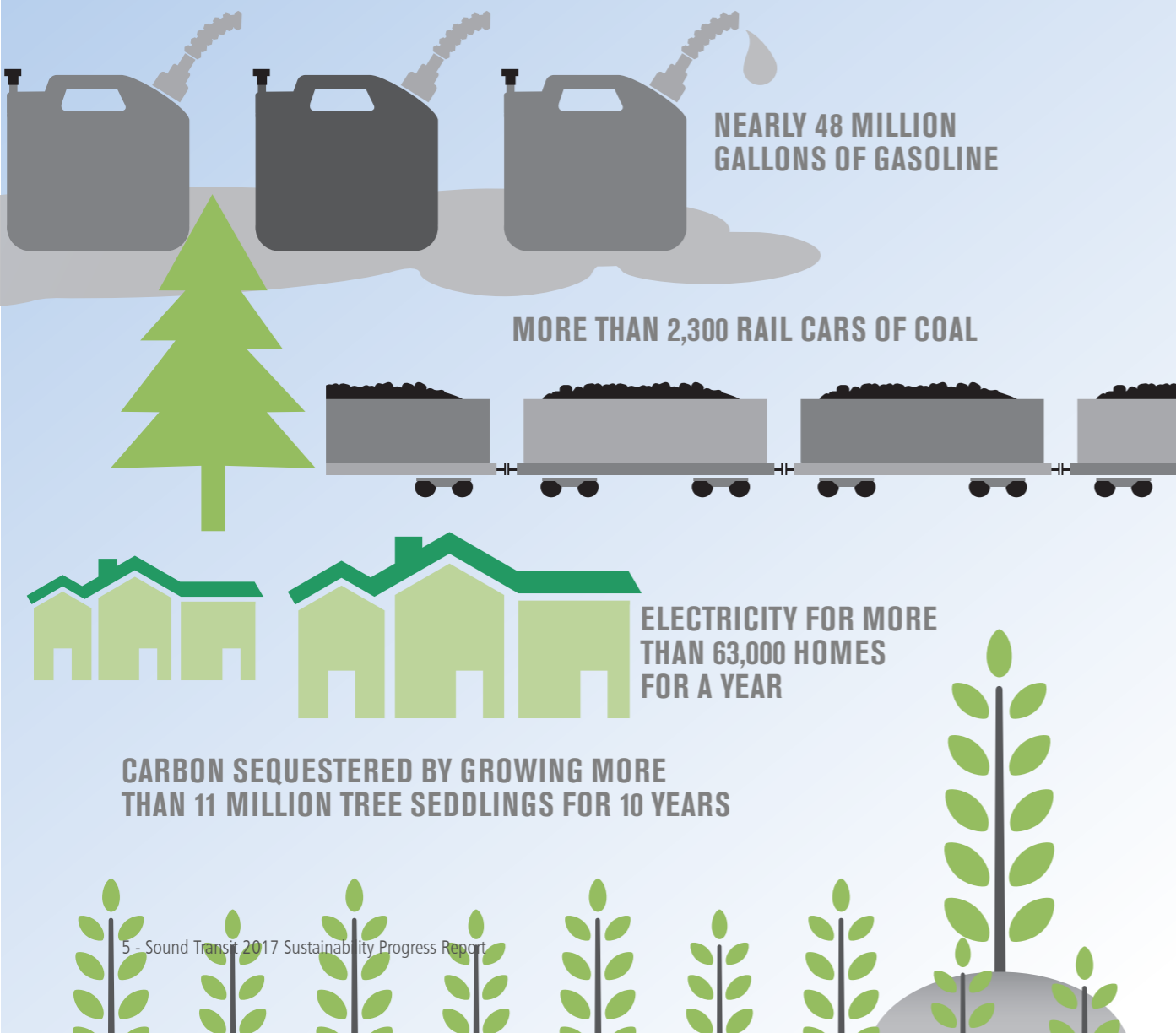
# Planet

Promote stewardship to conserve the planet's natural environment

## Increasing environmental benefits

Sound Transit and partner services provide tangible environmental benefits for the region's growing communities. When people choose transit instead of driving alone, they reduce air pollutant emissions, among other benefits.

**Passengers taking Sound Transit instead of driving divert over 425,000 tons of greenhouse gas emissions annually – a 5% increase since 2016. This is equivalent to:**



## Making progress toward 2017 sustainability goals

- Reduce greenhouse gas emissions by 5 percent.\*
- Reduce vehicle pollution by 15 percent.\*
- Decrease total energy use by 5 percent for all facilities built before 2015.
- Divert 40 percent of office waste to recycling or compost.
- Recycle 90 percent of construction and demolition materials.

○ Work needed   
 ◐ On track   
 ● Goals met   
 \* Data normalized by passenger miles traveled.

## Greening Link Light Rail – 100% clean and green in 2019

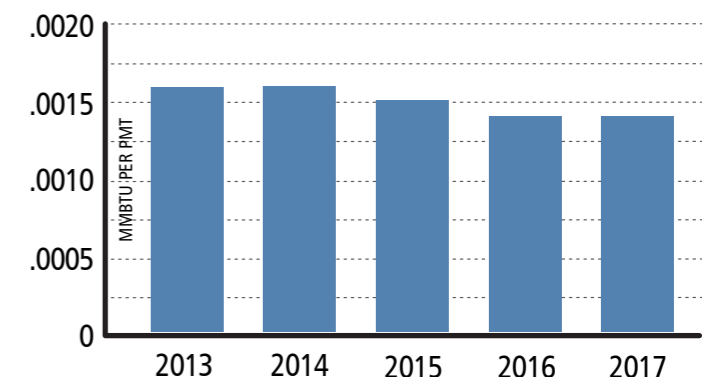
Sound Transit has executed an innovative 10-year agreement with Puget Sound Energy (PSE) that will allow Link light rail trains to run on 100 percent clean energy starting in 2019. Sound Transit will purchase wind energy directly from a PSE wind-power facility in Lewis County to run Link light rail service completely on clean energy. This agreement aligns with the agency's Sustainability Plan and the voter-approved Sound Transit 3 ballot measure that commits the agency to reducing greenhouse gas emissions, expanding the use of renewable energy and making all facilities and electricity carbon-neutral by 2030. It also helps the agency lower its exposure to future utility price increases and potentially reduces long-term operating costs.

## MOVING MORE PEOPLE EFFICIENTLY

All modes continue to operate more efficiently by carrying more passengers while using less fuel every year.

\* Data normalized by passenger miles traveled.

## FLEET ENERGY USE\*

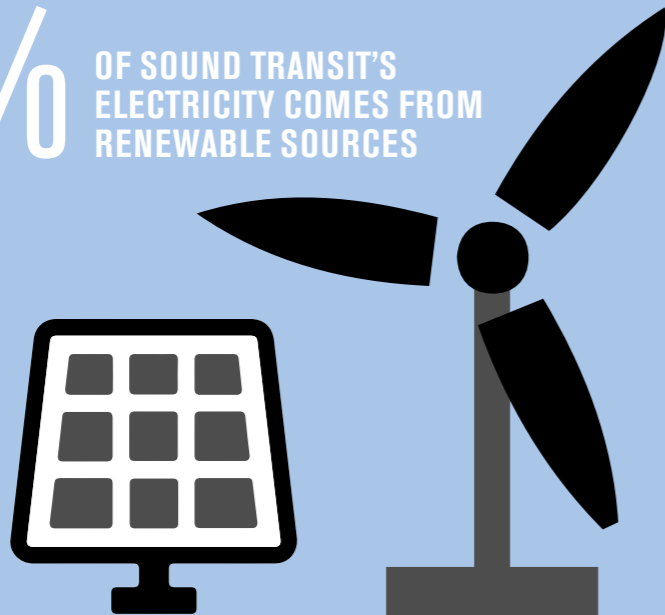


# Planet

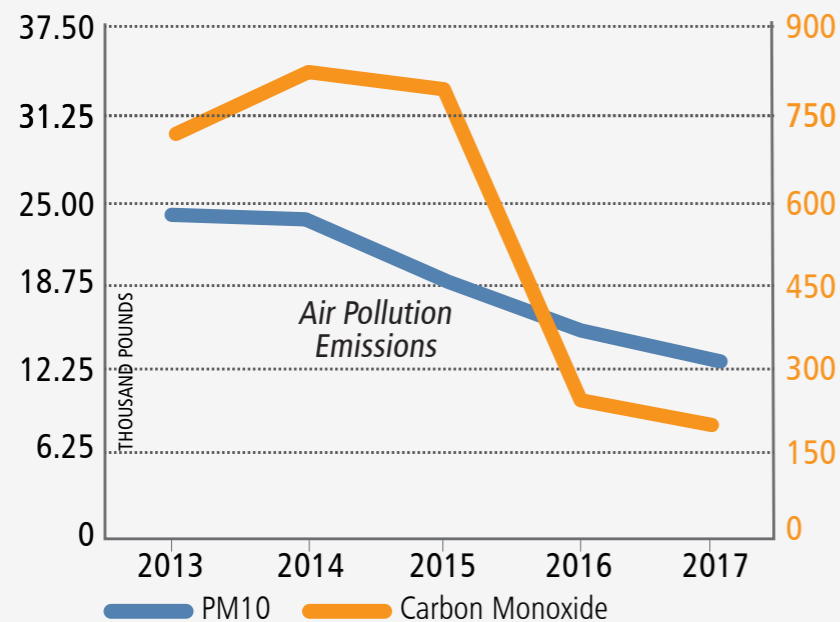
Promote stewardship to conserve the planet's natural environment

## USING RENEWABLE ENERGY

**84%** OF SOUND TRANSIT'S ELECTRICITY COMES FROM RENEWABLE SOURCES



## ST EXPRESS AND SOUNDER AIR POLLUTION REDUCTION



## Going Electric?

As bus technology rapidly evolves, Sound Transit is keeping a finger on the pulse of an ever-changing industry. In 2017 Sound Transit initiated a study of the feasibility of battery electric bus technologies for Sound Transit's long-haul bus routes. Battery technology is evolving each year, and Sound Transit continues to monitor developments in the industry to ensure that existing and future bus services are as efficient as possible.



## Building green

Sound Transit's Angle Lake Link station is the agency's first facility to earn Gold rating in Leadership Energy and Environmental Design (LEED) from the U.S. Green Building Council for its use of sustainable building practices, which opened in the City of SeaTac in fall 2017. LEED Certification provides independent verification of a building's sustainable design and is the most widely used green building rating system in the world.

Contractors incorporated several environmentally sustainable features in the design and building of the station. Two solar power arrays on the site provide more than 74,000 kilowatt hours of power per year to the station, and the garage houses four charging stations for electric vehicles. Storage for 52 bicycles is available on site and station construction also incorporated regionally produced and recycled materials.



**"THIS IS ANOTHER SIGN THAT SOUND TRANSIT IS FULFILLING ITS BASIC RESPONSIBILITIES: NOT ONLY MOVING PEOPLE MORE EFFICIENTLY WITH LIGHT RAIL BUT ALSO DOING IT SUSTAINABLY,"**

**DAVE SOMERS,  
SOUND TRANSIT BOARD CHAIR AND  
SNOHOMISH COUNTY EXECUTIVE**

# Prosperity

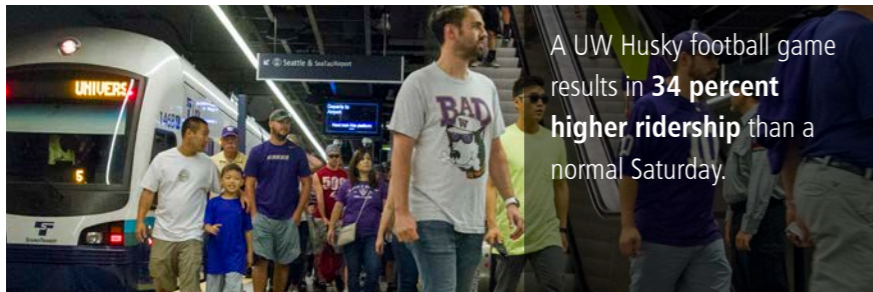
Support local economic prosperity by enabling residents and businesses to save time and money

## Supporting community events

Sound Transit connects more people to more places, including community events.



A weekday Mariners or Sounders game results in **10-20 percent higher ridership** than normal.



A UW Husky football game results in **34 percent higher ridership** than a normal Saturday.



A weekend Sounders, Mariners or Seahawks game results in **40 percent higher ridership** than normal.



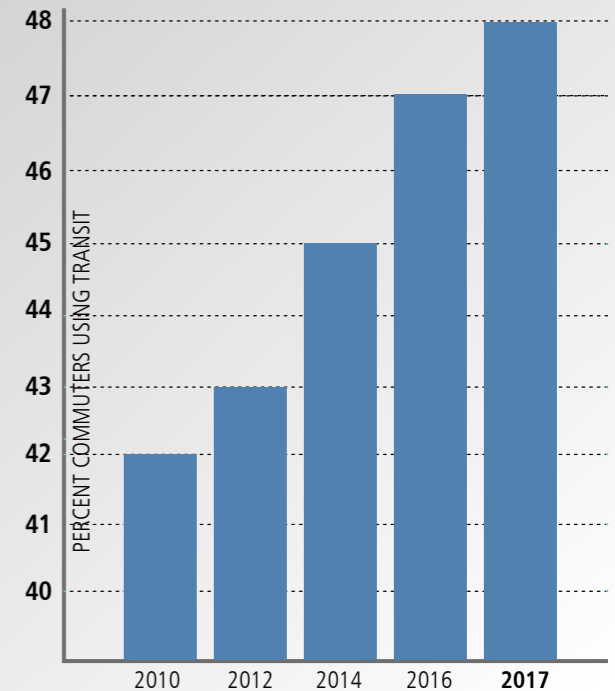
The Womxn's March on January 21, 2017 resulted in **60% higher ridership than normal for a Saturday.**



## Expanding Sounder service

Sound Transit's growth isn't just about light rail. Additional routes are easing congestion on the line's most crowded commuter rail trains to get riders easily from home to work and back. The agency added two new roundtrips to its popular south line Sounder service in 2017 between Seattle and Lakewood. The new trains provide more choices, capacity and frequent departures to make 13 daily roundtrips on the Sounder south line in South King and Pierce counties.

## 48% OF DOWNTOWN SEATTLE COMMUTERS RIDE TRANSIT\*



\* Commute Seattle

## Growing the ORCA LIFT program

The ORCA LIFT program is a reduced-fare program across a number of regional transit agencies, including Sound Transit, that increases mobility opportunities for riders with low-income.

**45,000** PASSENGERS REGISTERED FOR ORCA LIFT IN 2017

**15%** GROWTH SINCE 2016





# Prosperity

Support local economic prosperity by enabling residents and businesses to save time and money

## Employing Puget Sound residents

Sound Transit's capital expansion projects bring construction employment opportunities to communities across the Puget Sound region. In 2017, Sound Transit's construction projects directly employed:

- 30 percent people of color
- 8 percent women
- 15 percent apprentices

*Sound Transit projects directly employed more than 5,000 people working 1.7 million hours earning \$72 million in wages.*



## Procuring greener services

Sound Transit continues to prioritize sustainability at a project's beginning—the procurement process. Over the past few years Sound Transit developed a life cycle cost tool to help procurement staff and vendors analyze all costs of a product—the purchase price along with maintenance, repairs, end of life disposal, etc. This tool was used in 2017 to help the agency's decision to purchase oil-less air compressors for light rail vehicles. This will save the agency hundreds of thousands of dollars in preventive maintenance and provide environmental benefits from eliminating the purchase, storage and disposal of oil for these units.



# Key performance indicators

Sound Transit's Sustainability Division coordinates across the agency to set sustainability goals and annually monitor, measure and report on progress. The division also works with agency leaders to prioritize staff efforts and financial investments that integrate sustainability into everyday business.



## Measuring progress on the Sustainability Plan

Key performance indicators



Work needed



On track



Goals met

### **Increase revenue fleet fuel efficiency and reduce vehicle pollution.**

14 percent reduction in total fleet energy use since 2014.\*

12 percent reduction in total greenhouse gas emissions since 2014. (Goal: 5 percent by 2017.)\*

17-82 percent reduction in criteria air pollutants since 2014, depending on pollutant. (Goal: 15 percent by 2017.)\*

More than 425,000 tons of CO<sub>2</sub>e of regional greenhouse gas emissions savings from Sound Transit ridership.

\* Data normalized by passenger-miles traveled

### **Optimize facility energy efficiency and clean energy generation.**

84 percent of electricity or energy consumption from renewable sources.

20 percent reduction in facility energy use. (Goal: 15 percent reduction in buildings built before 2015.)

### **Reduce construction pollution.**

Five general contractor/construction manager and design-build contracts that include Sustainable Practice Plans.

One fineable actions or other compliance violations related to storm water treatment out of 17 permits issued.

80 percent or higher recycling rate for construction and demolition materials.

### **Make informed decisions that consider environmental and social impacts.**

Five formal total cost of ownership analyses performed.

Two major project and procurement reports that include sustainability topics.

### **Advance sustainability in early planning and design.**

13 design processes that include budgets for sustainable design, green infrastructure, access and transit oriented development readiness.

Four external partnerships to enhance sustainable planning (not including partner agencies and jurisdictions).

N/A - percent increase of required sustainable design and green infrastructure features in design criteria. Design criteria significantly updated in 2017/18.

### **Increase system resilience to climate change and extreme weather.**

Seven of ten Climate Adaptation Strategy actions completed.

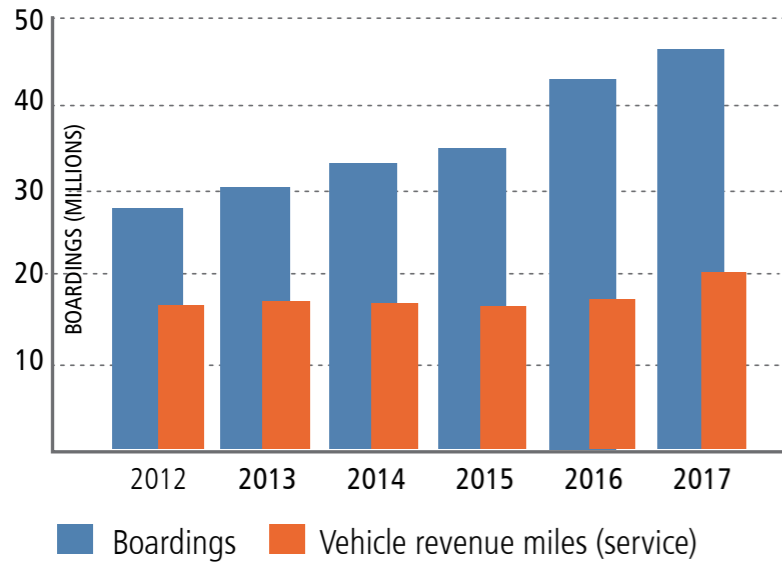
### **Procure and use green products and services.**

93 percent of agency procurements assessed for green methods and features.

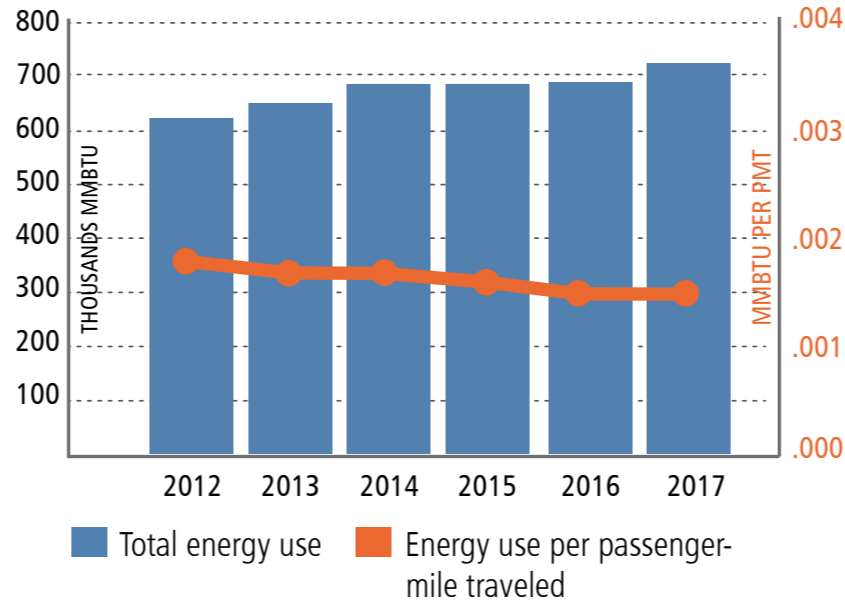
33 percent of new procurements included green methods and features.

# Trends

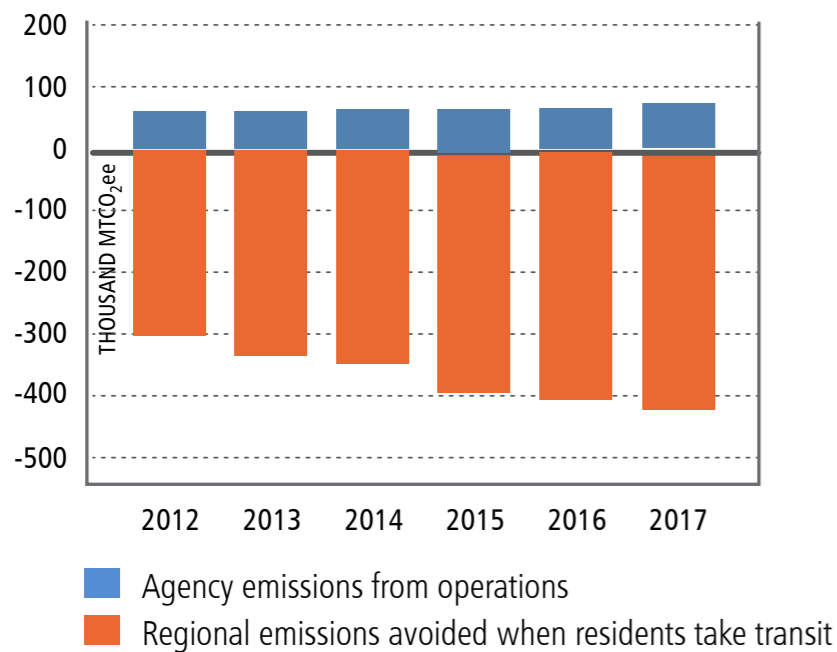
## BOARDINGS AND SERVICE



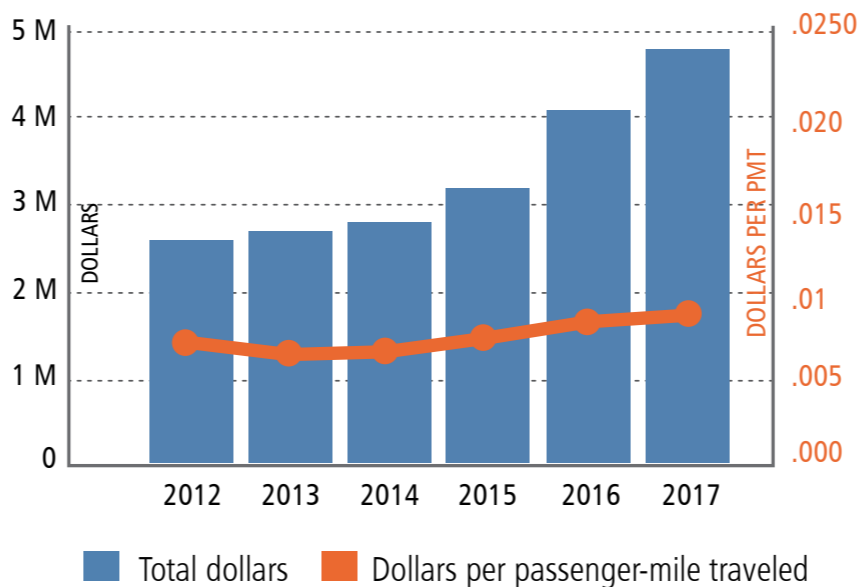
## REVENUE FLEET ENERGY USE



## GREENHOUSE GAS EMISSIONS



## UTILITY COSTS



## Continual improvement

The agency's sustainability performance continues to improve annually. And the nature of this complex work means that for each success, there are more challenges to solve. In the next year, the agency will focus its sustainability planning and implementation efforts to:

- Evaluate the feasibility of electric buses and charging infrastructure for Bus Rapid Transit service.
- Set goals and plan for the implementation of rapidly evolving technologies into system expansion projects.
- Create best practices for integrating green building and sustainable infrastructure at the earliest phases of project development for ST3 capital projects.
- Finalize a long-term strategy to implement resource conservation and cost efficiencies in operations and maintenance across the existing system.





# 2017 Sustainability Targets *Sound Transit Year in Review*

- Update the Environmental and Sustainability Management System to the new ISO 14001 standard.
- Initiate Sound Transit Efficiency and Sustainability Fund.
- Formalize Sustainability Program funding and work plan for capital expansion projects.
- Formalize agency utility conservation program.
- Approve building salvage process and procedures.
- Implement clean diesel construction equipment standards for Lynnwood Link where feasible.
- Broaden annual Sustainability Report to include social and economic metrics.
- Evaluate electric bus feasibility for Sound Transit.

\* These partially completed targets are on track for finalization by Q2 of 2018.



# 2018 Sustainability Targets *Supporting people, planet and prosperity*

- Adopt updated Sound Transit Sustainability Plan.
- Propose utility rebate process for capital projects.
- Develop an onsite renewable energy strategy for capital expansion projects.
- Evaluate electric bus feasibility for Bus Rapid Transit service.
- Create energy efficiency plan for existing facilities.
- Adopt protocol for completion of environmental due diligence.
- Include sustainability design features in negotiated contracts for First Hill and Roosevelt transit oriented development projects.
- Launch on-demand bike locker program.
- Initiate construction of three East Link wetland and stream mitigation projects.
- Develop station area planning template that addresses transit oriented development, access and sustainability.

2018



*For more information contact [esms@soundtransit.org](mailto:esms@soundtransit.org)  
or visit [soundtransit.org/environmental](http://soundtransit.org/environmental)*

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