



2020 Sustainability Progress Report

Building a better tomorrow SEPTEMBER, 2021



Sustainability

Sustainability at Sound Transit

Sustainability is at the core of Sound Transit's mission to connect more people to more places to improve quality of life and create equitable opportunities for all. Investing in transit builds a better future by supporting a clean environment, connecting communities and fostering vibrant economies. The COVID-19 pandemic reinforced the importance of transit as an essential service. Despite the challenges of operating during a pandemic, Sound Transit supported regional sustainability by continuing to serve the riders who depend on transit.

At Sound Transit, sustainability helps implement our agency's mission by:

- Enabling **people** to have affordable, safe regional transportation options.
- Promoting stewardship that conserves the **planet's** natural environment.
- Supporting community **prosperity** by enabling residents and businesses to save time and money.



Sound Transit uses a robust Environment and Sustainability Management System (ESMS) to guide its environmental and sustainability initiatives. The 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's ESMS has maintained international ISO 14001 certification for accountability in controlling environmental impacts, maintaining environmental compliance and demonstrating enhanced sustainability performance.

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



About this report

Sound Transit's Environmental Policy requires staff to annually update the agency's Board of Directors and the public on environmental compliance and sustainability efforts. This year's Annual Progress Report summarizes agency efforts to achieve long- and short-term environmental and sustainability goals – and highlights the challenges of providing service during a pandemic.

Analysis and performance measures in this report focus on the agency's resource use - including the planning and design of capital projects - and the operations of Sound Transit's services. (This report does not include the resource use of the agency's construction activities.)

The pandemic dramatically altered travel patterns throughout the region, as clearly reflected in annual ridership and resource use data. While 2020 data indicated an abrupt break from the agency's sustainability trends, moving forward, this year's data will also underscore the story of the agency's recovery from the pandemic.

The data in this report focuses on the metrics set by Sound Transit's 2019 update to the agency's Sustainability Plan, which set short-term goals for the years 2019 through 2024 and extended the agency's long-term goals to 2050. The year 2018 serves as the baseline for the agency's short-term goals and key performance indicators.

These metrics reflect multiple reporting frameworks and standards, including those used by other transit agencies and local governments, as well as the American Public Transportation Association's Sustainability Commitment and The Climate Registry.

Transit is sustainable

Sustainability during COVID-19

Sound Transit's work to operate and expand the regional transit system is essential to Central Puget Sound's sustainable future. The agency continued to provide service and plan capital expansion projects as the community at large struggled during the pandemic.

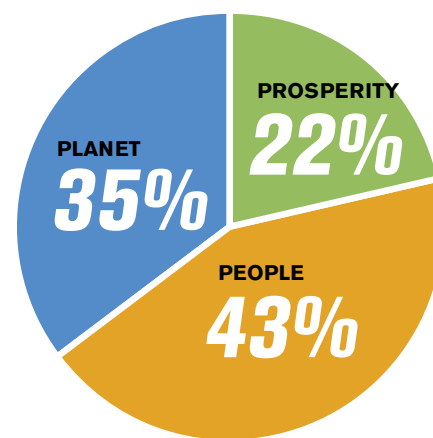
Sound Transit's operations during the pandemic demonstrated the value of transit in sustaining communities. COVID-19 underscored that many residents in the region depend on public transit as the means to get to work, to school or to access essential services. Moving forward, the agency will carefully monitor how travel patterns continue to change and will add service where demand increases most and where passengers rely on Sound Transit the most.

Addressing equity is also an important component of providing an essential regional service. The agency is evaluating how to re-balance service in the context of the urgent national conversation about systemic racism and racial inequity. One important criteria for reevaluating capital projects is factoring in how well the agency prioritizes the projects that serve low-income communities and communities of color.

Progress toward the Sustainability Plan – 2019 Update

This report includes data on Sound Transit's operational performance from a resource use perspective, as well as progress on short-term goals in the Sustainability Plan – 2019 Update. In 2020 Sound Transit's annual sustainability targets addressed 58% of the Plan's short-term goals. The 2020 targets addressed the priority areas in the following distribution (illustrated to the right).

Progress toward short-term goals per priority



Key accomplishments

In 2020 Sound Transit achieved a number of important sustainability accomplishments that leverage social, environmental and financial benefits for the region's future. Sound Transit:

- Continued to serve riders who need transit the most throughout the COVID-19 pandemic.
- Became the first agency in the nation to provide 100% carbon-free light rail service.
- Committed to becoming an anti-racist organization.
- Launched an innovative funding program to reduce resource use.
- Saved over \$500K from 28 new and existing sustainability and resource efficiency projects.

Continual improvement

The agency's sustainability performance continues to improve annually. However, there are always new sustainability initiatives that can further progress. In the next year, the agency will focus its sustainability efforts on:

- Delivering a cost-effective Sustainability Program that supports the agency's path forward.
- Collaborating with national partners to frame agency sustainability performance and key performance indicators within the challenges of the COVID-19 pandemic.
- Working with partner transit agencies to cooperatively plan regional fleet electrification across the Puget Sound.
- Continuing to make Sound Transit an anti-racist organization through employee and community engagement.

People

Helping people move freely, affordably and healthily by providing regional transit service

Serving passengers throughout the pandemic

This past year was incredibly difficult. The COVID-19 pandemic created significant challenges for Sound Transit to provide service after the upending of day-to-day life. However, the agency remains committed to providing transit service to those who need it the most. Compared to 2019, Sound Transit riders in

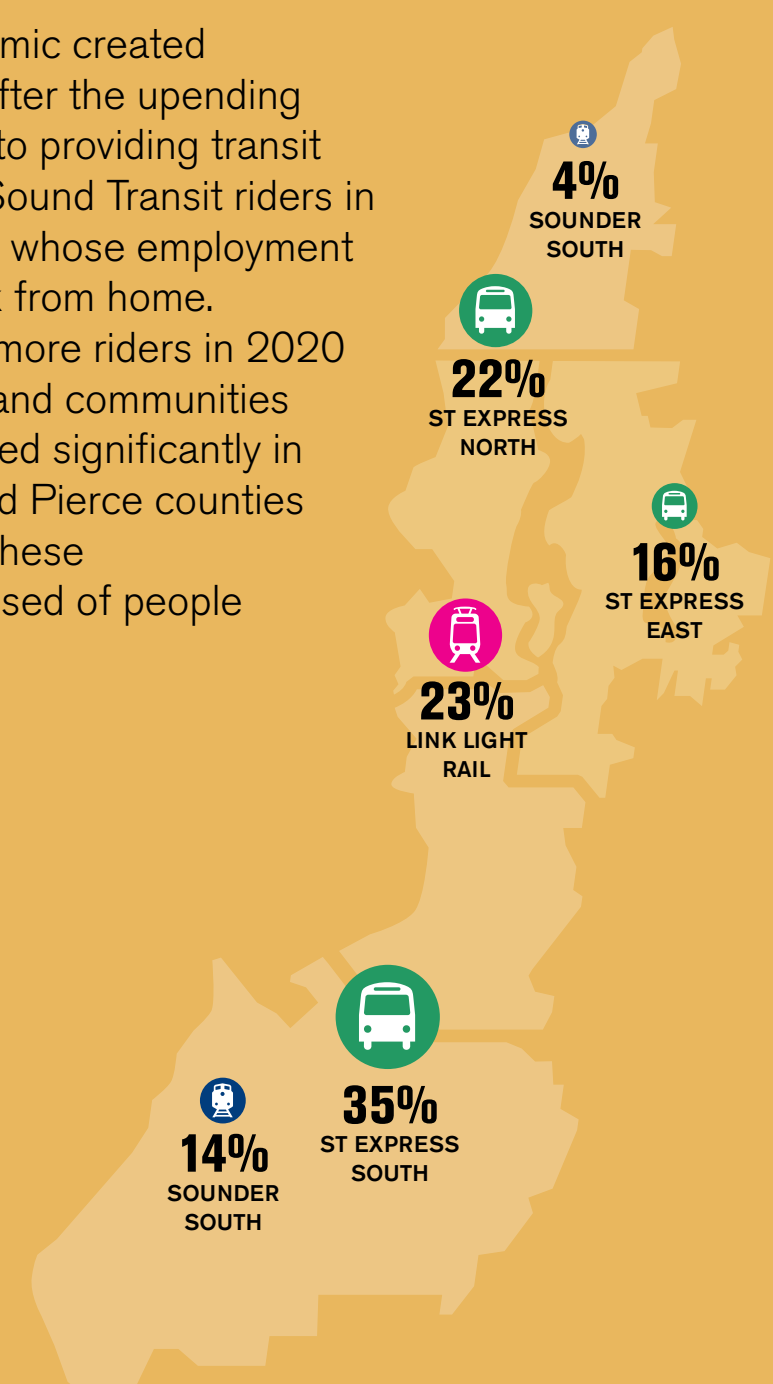
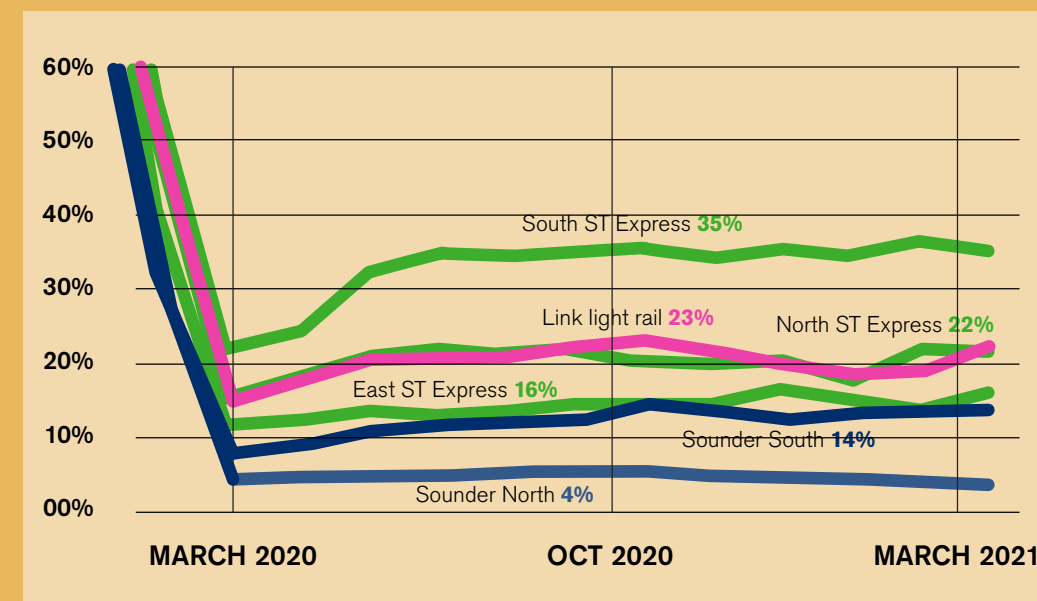
South King and Pierce counties accounted for the largest percentage of continuing riders.

2020 were more likely to be those whose employment status did not enable them to work from home.

Additionally, Sound Transit served more riders in 2020 from lower income, working class and communities of color. As shown, ridership dropped significantly in March of 2020, but South King and Pierce counties

accounted for the largest percentage of continuing riders. These communities are less economically secure and more comprised of people of color than the rest of the Sound Transit service area.

Weekday ridership trend *Percent of pre-COVID*



Key Performance Indicators

Dollars contributed to affordable housing revolving loan fund:

\$4 million

Staff trained in equity and inclusion:

93% of staff completed Equal Employment Opportunity (EEO) Training

52% of staff completed Inclusion Competency Trainings

15% of staff attended the Undoing Institutional Racism Workshop

Hours worked by diverse communities on ST job sites:

32% by people of color

7% by women

18% by apprentices

Staff trained to sustainable professional accreditations:

34 Envision Sustainability Professionals

22 LEED Accredited Professionals

12 other sustainability certifications

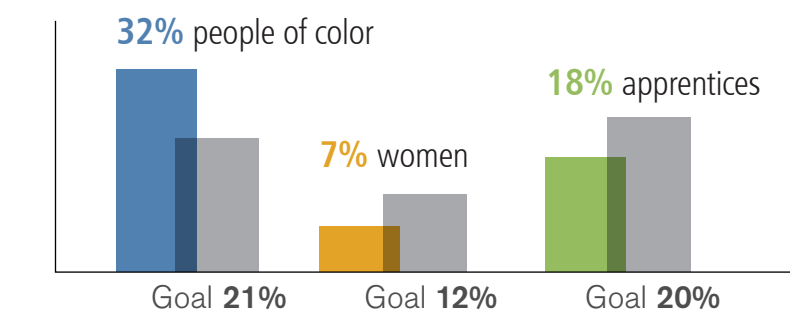
LONG-TERM GOALS:

Social equity addressed and implemented as an agency value

Employing Puget Sound residents

Sound Transit's capital expansion projects bring construction employment opportunities to communities across the Puget Sound region.

In 2020 Sound Transit's construction projects directly employed more than 10,194 people working 4.2 million hours earning \$203 million in wages.



People

Helping people move freely, affordably and healthily by providing regional transit service

LONG-TERM GOALS:

Social equity addressed and implemented as an agency value

Addressing racial equity in capital projects

Shortly after adopting an internal Equity and Inclusion Policy in late 2019, Sound Transit began drafting its first Racial Equity Toolkit (RET). The RET will be designed to integrate explicit consideration of racial equity in decision-making related to projects, policies, programs and practices. The tool provides a framework for the agency to proactively collect and evaluate data to better understand potential affects to communities of color and other marginalized populations. Central to the RET are requirements that Sound Transit conducts outreach and engagement practices that are responsive to community needs. The goal is to ensure that the agency integrates the needs of stakeholders who have been, and continue to be, hurt by systemic racism into project outcomes.

Providing COVID relief funding for pre-apprenticeship programs

Sound Transit remains committed to developing and supporting skilled tradespeople in the region. In 2020 Sound Transit provided nearly \$50,000 of COVID-19 relief funds to pre-apprenticeship programs. These funds went to the purchase of personal protective equipment, cleaning supplies and remote learning technological supplies to ensure that skills development continued despite the pandemic. Sound Transit's support of pre-apprenticeship programs supports the agency's goals of deploying a performance-based, community-centric and safe capital program, as well as increasing diversity in the region's construction workforce.



All staff champion sustainability

Becoming an anti-racist organization

In 2020, Sound Transit made the commitment to becoming an anti-racist organization. Sound Transit's Office of Civil Rights, Equity & Inclusion has been building a foundation since December 2017 to create a path for true transformation. Currently, Sound Transit is developing a long-term strategy that will continue to support our commitment to achieve racial equity in our systems, policies and practices.

Memory Net with family portrait

"This is a portrait from a photo taken in 1939 of my great grandparents and grandparents on their California family farm, a few short years before they were all incarcerated at Tule Lake concentration camp because of their Japanese heritage during WWII."

©Lauren Iida, 2020, "Memory Net with family portrait", Sound Transit, Temporary Mural, Federal Way Link Extension Construction Site



Planet *Promoting stewardship to conserve the planet's natural environment*

Maintaining significant environmental benefits

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

Essential transit riders using Sound Transit services in 2020 diverted nearly 119,000 tons of greenhouse gas emissions. Although the volume of greenhouse gas emissions averted in 2020 was much lower than in 2019, the agency continued to displace significantly more emissions than it produced from operations. In 2020, Sound Transit averted nearly two and a half times the emissions than it produced (compared to nearly six times the emissions produced in 2019). The diverted emissions are equivalent to:



Burning more than 13 million gallons of gasoline.



Providing electricity for more than 21,000 homes for a year.



The carbon sequestered by growing nearly two million tree seedlings for 10 years.

Key Performance Indicators

Greenhouse gas emissions

26% reduction

Criteria air pollutants

Particulate Matter: 15% decrease | Volatile Organic Compounds:

5% increase NOx: 4% decrease | CO: 12% increase | Sox: 19% decrease

kWh renewable energy production

48,460 kWh produced in 2020

Energy used in facilities built before 2018

11% reduction

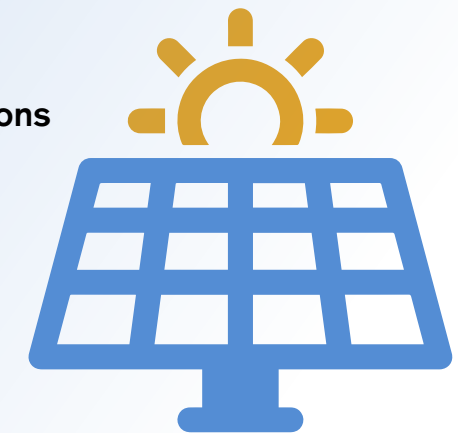
of fineable environmental compliance violations

2 violations in 2020

Agency water use

11% increase

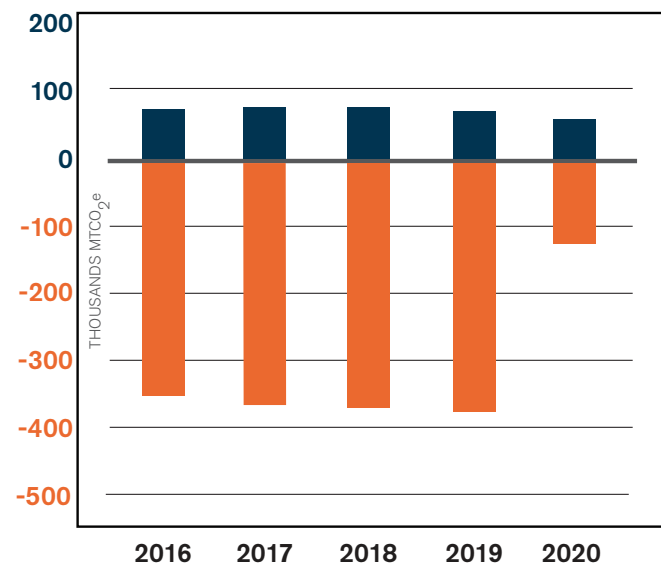
Key performance indicators' percent changes are total (not normalized).



Greenhouse gas emissions

Every year the benefits of Sound Transit's service far exceeds the emissions associated with operating that service.

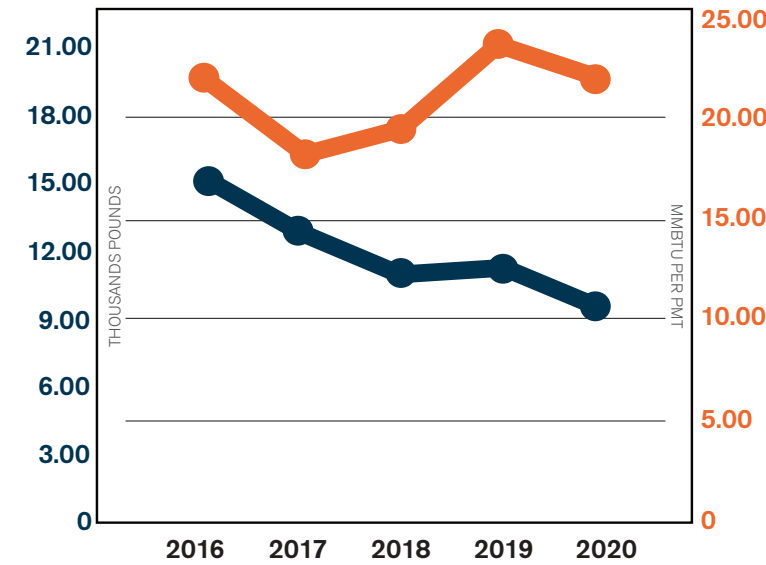
- Agency emissions from operations
- Regional emissions avoided when riders take Sound Transit



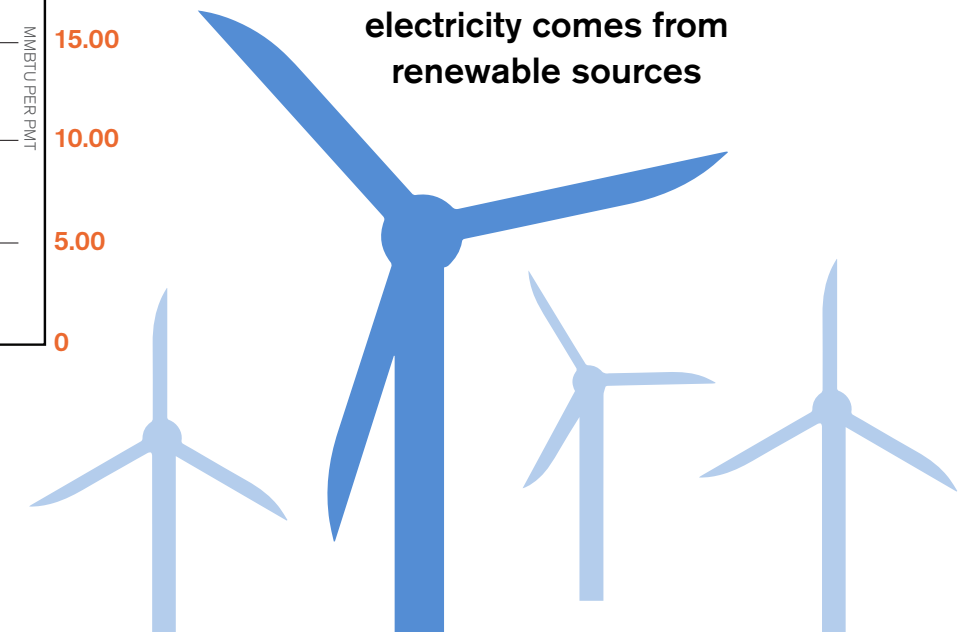
Reducing air pollution

Updates to Sounder engines and phasing out older ST Express diesel buses have reduced Sound Transit's air pollution.

- PM10
- Carbon monoxide



89%
of Sound Transit's
electricity comes from
renewable sources



Planet

Promoting stewardship to conserve the planet's natural environment

LONG-TERM GOALS:

Achieve carbon-free operations

Running Link light rail on clean energy

In 2020 Sound Transit became the first major light rail system in the country to run on 100% carbon-free electricity. This accomplishment was possible due to an innovative agreement with Puget Sound Energy to purchase wind energy directly from the utility's Green Direct program.

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"Innovative projects like PSE's Green Direct program demonstrate how Washington state continues to be a national leader in the clean energy economy," said Governor Jay Inslee. "Puget Sound residents can now travel on Sound Transit's carbon-free light rail while supporting our local economy and homegrown solutions to solve our global climate crisis." Green Direct provides renewable energy from the Skookumchuk Wind Facility directly to six Link light rail accounts. Because the rest of the

Link system is powered by Seattle City Light, the nation's first carbon neutral electric utility, all of Link light rail now runs on carbon-free energy.

Incorporating low carbon standards into design

Sound Transit continues to advance design standards that reduce the agency's carbon footprint during operations. In addition to initiatives to use less fossil fuels, Sound Transit is also focusing on reducing the embodied carbon in our construction material supply chain. Embodied carbon is the carbon associated with the manufacturing of products, including the energy used for extracting and processing of raw materials, manufacturing of construction materials, transportation and distribution, and assembly. Agency staff are now working on design standards that will lower the embodied carbon in capital projects. These include:

- Advancing the use of concrete and steel that use less carbon, which are by far the largest volume of materials used in our projects.
- Developing strategies to eliminate the use of fossil-fueled heating and cooling equipment in buildings.
- Increasing the use of carbon and energy modeling during early design to help set clearer performance expectations.



Enhance ecosystem functions

Remediating contaminated properties

Sound Transit's environmental policy commits the agency to protect the environment for present and future generations. This means reducing the environmental risk from pollution, impacts to ecosystems and, going above and beyond by restoring the environment where possible. One area of environmental risk is Sound Transit's ownership of real estate parcels containing hazardous substances that may pose a threat to human health or the environment. Sound Transit developed a proactive approach to remediation by evaluating these sites and developing a clean-up strategy where needed, enabling the use of these sites for transit-oriented development



Prosperity

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

Saving money with sustainability

Sound Transit invests in sustainability – and sustainability pays back. Over the past 10 years, Sound Transit has invested in many sustainability projects that save natural resources and save the agency money. These projects include operational improvements like using electric wayside power units on Sounder trains to reduce the idling of diesel engines and upgrading inefficient lighting to LEDs.

A sample of resource conservation projects at the agency saved Sound Transit \$508,000 in 2020 alone, and more than \$5.6M over project lifetimes.

Savings:



	2020 Savings	Savings to date
Fleet Upgrade Projects	\$238,223	\$4,444,091
Irrigation Projects	\$43,068	\$274,970
Facilities Upgrade Projects	\$25,581	\$179,211
Solar Installations	\$3,451	\$23,022
LED Lighting Upgrade Projects	\$198,126	\$761,289

More details on sustainability cost savings are located in Appendix B.

Key Performance Indicators

Staff trained in emergency preparedness

68% of staff trained

Projects that include Climate Change Vulnerability Assessments

100% of eligible projects

Waste diverted

31%

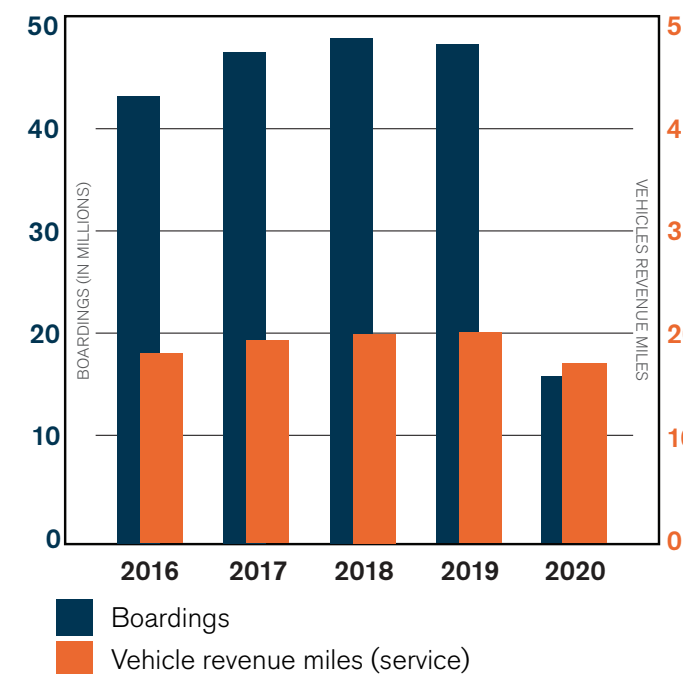
% of and increase in dollar value of new procurements that include green methods and features

43% of procurements included green methods | 57% decrease in dollar value from 2018

Key performance indicators' percent changes are total (not normalized)

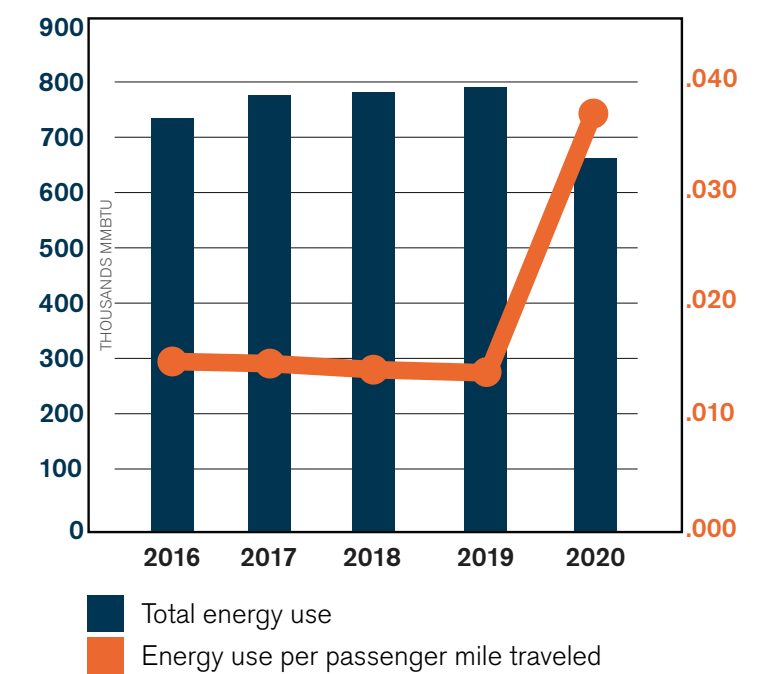
Boardings and service

Sound Transit carried more passengers per service levels every year, until the disruption of the COVID-19 pandemic



Revenue fleet energy use

All services continued to operate efficiently by carrying passengers further while using fuel more efficiently, until the disruption of the COVID-19 pandemic.



Prosperity

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

LONG-TERM GOAL:

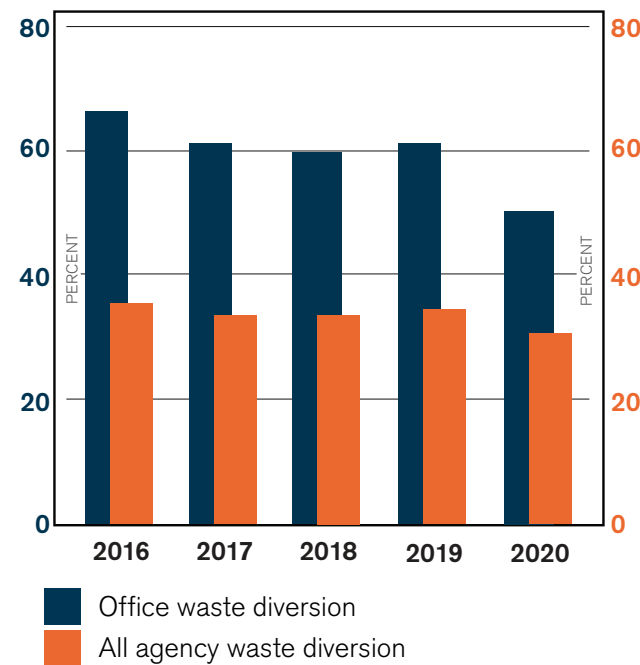
Build resilience to climate change and natural or manmade disasters

Preparing Sound Transit for emergencies

Employees are a vital resource to keeping our critical transportation network online during any major incident or natural disaster. If employees are not prepared, Sound Transit is not prepared. The agency's Emergency Management staff have created an education program to help employees prepare for an emergency by teaching them how to take accountability for their personal safety and preparedness.

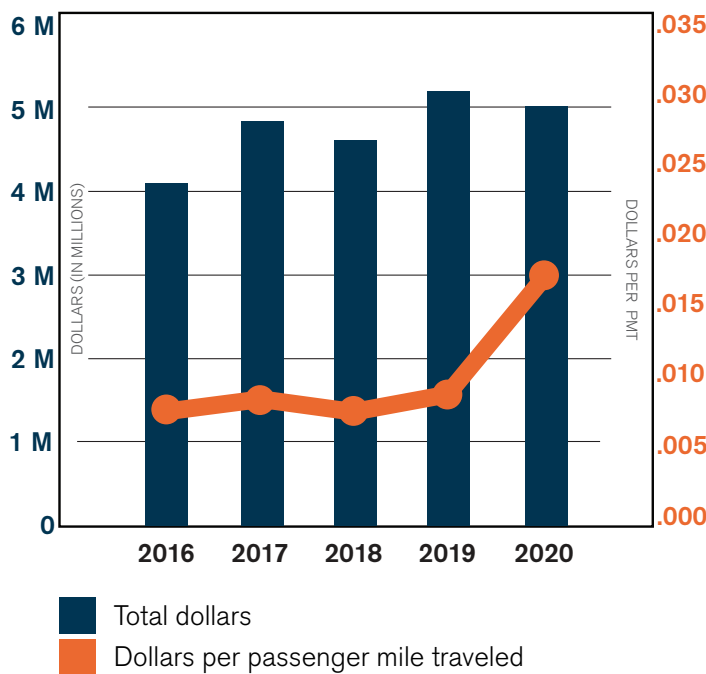
Waste diversion

Sound Transit continues to maintain a high waste diversion rate in our office buildings and is exploring ways to increase waste diversion from service operations.



Utility costs

Sound Transit is a growing agency, but has been able to keep costs per level of service relatively steady, until the disruption of the COVID-19 pandemic.



Maximize operational efficiency

Funding innovation and sustainability through internal grants

- In 2020 Sound Transit's Innovation Program launched an internal grant opportunity to fund pilot projects to address some of the agency's challenges in accessibility, accountability and effectiveness, customer experience, equity, mobility, safety and sustainability. Pilot projects funded through this grant in 2020 included one that uses technology to monitor the overhead catenary system on Link, enabling the agency to reduce the risk of wires coming down and to understand maintenance efficiencies.
- Also in 2020, Sound Transit launched a second internal grant program – the Efficiency and Sustainability Program. This program focuses on achieving more significant resource conservation, pollution mitigation and other sustainability milestones throughout the agency's activities. The program will help the agency realize sustainability goals like achieving carbon-free operations, maximizing operational efficiency and enhancing ecosystem functions. The program launched in 2020 and project funding and implementation will begin in 2021.





2020 Sustainability Targets

Sound Transit Year in Review

People

- Evaluate surface parking for future development with Tacoma Dome Link Extension as case study*
- Analyze use of cross-laminated timber and modular housing for equitable Transit Oriented Development
- Launch Racial Equity Analysis Toolkit and accountability-based outcome trainings
- Initiate workforce pre-apprenticeship programs with three new partner organizations
- Implement new Employee Assistance Plan and well-being platform
- Create distinct career paths for management, professional and technical track staff*

* These partially completed targets are on track for finalization in 2021

Planet

- Define long-term strategy for battery electric bus implementation
- Pilot low-carbon strategies in Sounder Maintenance Base design
- Catalogue environmentally beneficial features of agency mitigation sites
- Implement program to address ST properties listed as contaminated; complete evaluation of 10 sites
- Update tracking and reporting system for environmental and permitting commitments
- Upgrade irrigation controls at four facilities
- Develop and implement interagency agreement to identify potential fish passage barriers early during capital project development
- Conduct feasibility study for LEED Platinum and other certifications for Operations and Maintenance Facility South

Prosperity

- Launch emergency preparedness employee awareness campaign
- Conduct climate vulnerability assessment for Tacoma Dome Link Extension project
- Implement advanced utility monitoring and reporting systems
- Launch Internal Innovation Grant Program
- Implement the Agency Safety Plan
- Initiate a strategic Asset Management Plan
- Enable Procurement and Contracts to receive paperless proposals and other related or relevant documents
- Transition the Procurement and Contracts Division to an electronic filing system (vs. hard copy files) for 50% of solicitations



2021 Environmental and Sustainability Targets

Supporting people, planet and prosperity

People

- Evaluate alternatives for delivering ST3 parking investments and explore joint development opportunities in the Everett Link Extension corridor.
- Evaluate affordable homeownership potential on at least one surplus property site.
- Finalize revolving loan fund business plan.
- Refine sustainability guidelines and goals for transit-oriented development projects.
- Develop and initiate implementation of an agency anti-racism strategy.
- Create implementation plans for the Racial Equity Tool, Equitable Engagement Tool, and Equity and Inclusion Policy.
- Launch three training initiatives to address implicit bias, racial equity and anti-racism.
- Develop a technical assistance program for veteran and disability-owned businesses.
- Implement a methodology for applying equity criteria in alternatives and environmental evaluation processes for all capital projects
- Initiate new construction apprenticeship programs in Snohomish and Pierce counties.
- Award and implement the first round of System Access Funds.
- Identify key Operations staff to pursue sustainability professional accreditations.
- Develop workplan to establish internal agency green team.
- Implement work plan to create standards for a hybrid workforce of office-based, job site and teleworking staff.
- Finalize Station Experience Design Manual to guide and standardize passenger experience.
- Train all Passenger Experience staff on using personas to inform decision making and employ the passenger persona approach to project development and service planning.



2021 Environmental and Sustainability Targets

Supporting people, planet and prosperity

Planet

- Renovate Union Station to operate as a carbon-free facility.
- Launch regional, interagency battery electric bus working group.
- Install nonrevenue fleet electric vehicle charging at Northgate Station and Union Station garages.
- Revise contract specifications and project requirements for construction stormwater management, treatment and discharge.
- Reduce the carbon intensity of electricity by launching Phase 2 of PSE Green Direct Program.
- Evaluate carbon-free electricity purchasing options with utility partners.
- Document procedures for using the environmental commitment tracking and reporting system.
- Launch the Efficiency and Sustainability Program's internal grant opportunities.

- Update design criteria by determining applicability of embodied carbon in materials, electric vehicle and solar power readiness, and zero carbon green building certifications.
- Update Migratory Bird Treaty Act design specifications, project requirements and plans.
- Require 85% of eligible construction equipment to meet EPA's highest standards.
- Evaluate the feasibility of an advanced mitigation approach for wetlands and streams using an ST3 project as a case study.
- Define customized options for performance-oriented sustainability goals on capital projects.

Prosperity

- Develop guidelines for conducting climate vulnerability assessments for capital projects.
- Integrate total cost of ownership and budget information into 90% of new IT and nonexpansion project intake processes.
- Conduct gap assessment of agency capabilities against international standards for safety and asset management.
- Align reporting between agency's sustainability and strategic plans.
- Improve waste collection stormwater protection at OMF Central.
- Initiate streamlining of IT onboarding process through the launch of the Workforce Enablement Program.
- Develop and require the use of standard sustainability language for Operations & Maintenance agreements.
- Include sustainability evaluation criteria in at least 75% of informal Request for Quotes with Qualifications (less than \$250,000).



For more information contact esms@soundtransit.org
or visit [soundtransit.org/get-to-know-us/who-we-are/environment-sustainability](https://www.soundtransit.org/get-to-know-us/who-we-are/environment-sustainability)

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