Executive Summary

Caltrain is one of the largest commuter rail systems in the country based on ridership, and is in the midst of one of the biggest service changes in its history, preparing both to electrify train service and accommodate a rapidly growing ridership. By 2022, the first passengers will ride in locomotives that are no longer powered by diesel, but by electricity. At the same time, the number of passengers taking this service is expected to increase rapidly—Caltrain is planning to potentially accommodate demand that could reach 180,000 daily riders on by 2040—nearly triple its currently ridership of 65,000. Caltrain is committed to providing more trains more often, improving express service, serving more people and creating a more connected service corridor. To support these objectives, the Caltrain Board voted to adopt the Caltrain 2040 Business Plan in October 2019. The Plan sets a target for the railroad that ensures Caltrain can continue to meet the growing mobility needs of the region while making the best use of the many projects and investments planned and under construction along the corridor.

Ridership growth envisioned under the Caltrain Business Plan would eliminate 825,000 car trips and 110 metric tons of carbon emissions every day, and would put an estimated 5.5 lanes worth of commuter traffic onto Caltrain instead of the region's highways.

Increasing the system's environmental sustainability is a critical component of this Business Plan. Caltrain's first sustainability report was released in 2017, and since then Caltrain has continued to make significant strides toward fulfilling its vision to be a sustainable, equitable mobility leader. Caltrain's Sustainability Report is an evaluation of the agency's sustainability performance across all resource uses. Table 1 summarizes Caltrain's performance since the last report. **Caltrain's commitment to sustainability and to adopt best practices in resource management has enabled the agency to reduce net greenhouse gas (GHG) emissions by nearly 44% over the last two years.**

Caltrain has made these remarkable strides through a number of initiatives. First, in 2016, Caltrain's Board voted to proceed with enrollment in California's Community Choice Energy (CCE) program and, in 2017, voted to source 100% of Caltrain's eligible energy from renewable sources through CCE programs and available municipal utility programs. Second, Caltrain continues to increase the efficiency of light fixtures and other electric appliances at all facilities and has reduced electricity usage by approximately 7%.

Diesel use by revenue vehicles has also decreased over the last two years. Since 2016, Caltrain has achieved modest reductions in fuel use and has reduced consumption for diesel, gasoline and compressed natural gas. **Caltrain reduced diesel consumption by 7% over the last two years, resulting in a 7% decline in criteria air pollutants (CAPs).**

Caltrain's ridership over the last two years has remained relatively stable, with only about a 1% increase in passenger boardings. However, at the same time, the total number of train miles traveled has decreased slightly, meaning that Caltrain is moving more people than ever before while traveling fewer miles. The diesel trains that move Caltrain's customers account for 96% of all energy consumed by Caltrain; as the system electrifies, Caltrain's sustainability performance will significantly improve.

In April of 2018, Caltrain's continued achievements in sustainability were recognized with Silver level recognition by the American Public Transportation Association.

Table 1: Caltrain Sustainability Performance Summary FY2016 to FY2018

Indicator	Unit	2016	2017	2018	FY16 to FY18 Change
Greenhouse Gas Emissions					
Generated	$MTCO_2e$/year	49,291	48,187	45,278	-8.1%
Displaced/Avoided	$MTCO_2e$/year	-76,332	-61,772	-60,551	-20.7%
Net Total[1]	$MTCO_2e$/year	-27,040	-13,586	-15,273	-43.5%
Criteria Air Pollutant Emissions					
Generated	Tons	898	887	838	-6.7%
Displaced/Avoided	Tons	-471	-346	-311	-34.0%
Net Total	Tons	427	541	527	23.5%
Facility Energy Use					
Electricity	kWh	7,811,512	7,215,443	7,264,850	-7.0%
Natural Gas	Therms	7,770	8,145	8,017	3.2%
Total Facility Energy Use	kBTU	27,430,799	25,434,419	25,058,603	-8.6%
Revenue Fleet Vehicle Energy Use					
Diesel	Gallons	4,535,867	4,478,040	4,234,870	-6.6%
Gasoline	Gallons	99,882	105,150	99,406	-0.5%
CNG	GGE	9,069	8,204	6,324	-30.3%
Total Vehicle Energy Use	kBTU	639,773,567	632,359,954	597,873,380	-6.5%
Revenue Fleet Operations (train miles)[2]					
Train Miles	Miles	1,443,982	1,390,674	1,341,789	-7.1%
Train Revenue Miles	Miles	1,380,022	1,354,608	1,312,307	-4.9%
Ridership					
Service Population	People	3,569,522	3,573,797	3,614,716	1.3%
Passenger Miles Traveled[3]	Miles	490,734,443	408,157,122	411,267,970	-16.2%
Train Boardings	Trips	18,355,641	18,648,850	18,504,880	0.8%
Waste and Recycling					
Generated	Tons	583	583	591	1.4%
Diverted	Percentage or Percentage Points	72%	72%	73%	1 p.p.[4]
Water					
Consumed	Gallons	12,864,117	14,995,690	14,914,911	15.9%

Notes: Totals may not sum due to rounding.
[1]Net GHG emissions equal Caltrain's generated emissions minus emissions displaced by Caltrain
[2]All revenue fleet operations and ridership data exclude taxi/purchased demand services, which are not under the operational control of Caltrain
[3]Passenger Miles Traveled includes rail and shuttle service
[4]p.p. = percentage points