



RESOLUTION OF THE BOARD OF SUPERVISORS  
SISKIYOU TRANSIT AND GENERAL EXPRESS  
(STAGE)  
APPROVING THE ZERO-EMISSION BUS ROLLOUT PLAN

RESOLUTION NO. \_\_\_\_\_

**WHEREAS**, California Code of Regulation Title 13, Division 3, Chapter 1, Article 4.3, Part 2023.1(d) Zero Emissions Bus Rollout Plan Requirements requires that a transit agency Zero-Emission Bus Rollout Plan must be approved by its governing Board; and

**WHEREAS**, Zero-Emission Bus Rollout Plan sets forth STAGE’s plan, which meets the following requirements:

1. A goal of full transition to zero-emission buses by 2040 with careful planning that avoids early retirement of conventional internal combustion engine buses;
2. Identification of the types of zero-emission bus technologies STAGE is planning to deploy;
3. A schedule for zero-emission and conventional internal combustion engine bus purchases and lease options;
4. A schedule for conversion of conventional internal combustion engine buses to zero-emission technologies;
5. A schedule for construction of facilities and infrastructure modifications or upgrades, including charging, fueling, and maintenance facilities, to deploy and maintain zero-emission buses;
6. Explanation of how STAGE plans to deploy zero-emission buses in Disadvantage Communities;
7. A training plan an schedule for zero-emission bus operators and maintenance and repair staff; and
8. Identification of potential funding sources.

**NOW THEREFORE, BE IT RESOLVED** Siskiyou County is committed to procure zero emission buses and infrastructure to meet 100% fleet transition by 2040. However, this commitment is dependent on availability of funding and resources. The Board of Supervisors hereby approves the Siskiyou County Transit and General Express Zero-Emission Bus Rollout Plan as set forth in full.

**BE IT FURTHER RESOLVED** that insofar as the provisions of any Ordinance, Resolution, document, or previous action of the Board, prior to the date of this Resolution, are inconsistent with the provisions of this Resolution or any policy adopted by this Resolution, this Resolution and the Board Policies adopted herein shall control.

**PASSED, APPROVED AND ADOPTED** by the Siskiyou County Board of Supervisors, State of California, at a regular meeting of said Board held on the 20<sup>th</sup> day of June 2023 by the following vote:

AYES:  
NOES:  
ABSENT:  
ABSTAIN:

COUNTY OF SISKIYOU

Date: \_\_\_\_\_

\_\_\_\_\_

ED VALENZUELA, CHAIR  
Board of Supervisors  
County of Siskiyou  
State of California

ATTEST:  
LAURA BYNUM  
Clerk, Board of Supervisors

By: \_\_\_\_\_  
Deputy

# Zero Emissions Bus Rollout Plan



*Siskiyou Transit  
and General  
Express (STAGE)*

*Connecting Communities*



### **Siskiyou County History**

Siskiyou County is a largely rural and sparsely populated mountainous area, with small towns and cities separated by long travel distance. The county is bordered by Oregon to the north and Shasta Trinity, and Tehama Counties to the south. Mount Shasta, located in the center of the county is the fifth highest peak in California (and the second highest in the Cascade Mountain Range). Population grew in the mid 1800's during the California Gold Rush, while tourism increased in the 1880's after the construction of the Central Pacific Railroad. Siskiyou County is home to several Native American tribes, including the Klamath, Karuk, and the Shasta Indian Nation.

### **STAGE Transit Service Boundaries**

Interstate 5 (I5) runs north-to-south through many major communities in the county, including Dunsmuir, Mt. Shasta, Weed, Yreka and Hornbrook and Montague to the east of Yreka. State Route (SR) 97 connects to the northeastern portion of the county (Lake Shastina and MacDoel) and on into Oregon, while SR 96 connects to the western portion (Happy Camp) along the Klamath River. In the southern area, SR 89 travels from Mt. Shasta southeast to McCloud and on into Shasta County, while SR 3 connects the 1-5 corridor with the Scott Valley area to the southwest and on to Trinity County.

## **Section A: Transit Agency Information**

Siskiyou County Transit  
Siskiyou Transit and General Express (STAGE)  
190 Greenhorn Road  
Yreka, CA 96097

Air District

Total Number of Buses in Annual Maximum Service: 5

Population: 44,000

Contact Information:  
Angie Stumbaugh  
Transportation Services Manager  
530.842.8297

STAGE is not part of a joint group.

## **Section B: Rollout Plan General Information**

Siskiyou County's goal is to complete a full transition to zero-emission buses by the 2040 deadline. The County will purchase Hydrogen Fuel Cell buses between 2029 and 2035. The transition will not require the early retirement of any STAGE vehicles. A copy of the Siskiyou County Board of Supervisor's approved Resolution is attached to the Rollout Plan.

For additional information regarding this Rollout Plan, please contact:

Angela Stumbaugh  
Transportation Services Manager  
530.842.8297  
[astumbaugh@co.siskiyou.ca.us](mailto:astumbaugh@co.siskiyou.ca.us)

or

Steve Serdahl  
General Services Deputy Director  
530.842.8233  
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Siskiyou County Staff created this Rollout Plan.

### Section C: Technology Portfolio

Siskiyou County is committed to procure zero emission buses and infrastructure to meet 100% fleet transition by 2040. However, this commitment is dependent on availability of funding and resources. Siskiyou County will purchase 10 Hydrogen Fuel Cell Cutaway buses to replace five Gillig diesel buses, one Glaval diesel cutaway, and four gasoline cutaway buses. Preplacement of these buses will occur between calendar year 2029 and 2035. The county of Siskiyou will also need to attain a Hydrogen Fuel Station in the City of Yreka, CA. Siskiyou County Staff will continue to review, assess and modify as needed keeping the health and safety of the community at heart as well being fiscally responsible.

### Section D: Current Bus Fleet Composition and Future Purchases

Table 1: Individual Bus Information of Current Bus Fleet

Number of Buses	Engine Model Year	Bus Model Year	Fuel Type	Bus Type
5	2012	2023	Diesel	Standard
3	2017	2018	Gasoline	Cutaway
1	2017	2018	Diesel	Cutaway
1	2020	2021	Gasoline	Cutaway

Table 2: Future Bus Purchases (by Delivery Date)

Timeline	Total # of buses to Purchase	Number of ZEB Purchases	% of Annual ZEB Purchases	ZEB bus Type	ZEB Fuel Types	# of Conv. Bus Purchased	% of Annual Conv. Bus Purchased	Type of Conv. Buses	Fuel Type of Conv. Buses
2025	2	0	0%	-	-	2	100%	CU	Diesel
2026	2	0	0%	-	-	2	100%	CU	Diesel
2028	2	0	0%	-	-	2	100%	CU	Diesel
2030	3	3	100%	Cutaway	Hydrogen	0	0%	-	-
2031	2	2	100%	Cutaway	Hydrogen	0	0%	-	-
2032	2	2	100%	Cutaway	Hydrogen	0	0%	-	-
2035	3	3	100%	Cutaway	Hydrogen	0	0%		

Table 3: Range and Estimated Costs of Future ZEB Purchases (by Delivery Date)

Timeline	Number of ZEBs	Bus Type	Advertised Range (Miles)	Estimated Cost of each Bus
2030	3	Cutaway	300	\$700,000
2031	2	Cutaway	300	\$500,000
2032	2	Cutaway	300	\$500,000
2035	3	Cutaway	300	\$500,000

**Section E: Facilities and Infrastructure Modifications**

The County currently has one Maintenance Yard, which is where all our buses are housed, located at 279 Sharps Road Yreka, CA 96097. It is too small to accommodate a Hydrogen Facility. We are currently looking for the best place for the facility. Either at the Transit Center located at 190 Greenhorn Road Yreka, CA 96097 or we are inquiring about some land next to the current Maintenance Yard.

STAGE has requested a feasible electrical evaluation study, from Pacific Power, for our service needs if we choose to go with the electric bus. Once the study is completed, they will provide the approx. cost, timeline and feasibility. So far, the electric bus technology does not support the long distance routes in Siskiyou County.

We are currently looking into the hydrogen fueling stations, locations, feasibilities and bus options. So far, the hydrogen bus technology does support the long distance routes in Siskiyou County.

Facility Name	Address	Main Function	Type of Infrastructure	Service Capacity	Needs Upgrade	Estimated Construction Timeline	Electric Utility Company
Siskiyou County Yard	Next to 279 Sharps Road	An empty lot next to the Maintenance Yard and Fleet Storage	Truck in liquid Hydrogen	10	Yes	2030	Pacific Power
Transit Station	190 Greenhorn Road	Transit Station and office space	Truck in liquid Hydrogen	10	Yes	2030	Pacific Power

**Section F: Service in Disadvantaged Communities**

According to the California Office of Environmental Health Hazard Assessment, disadvantaged communities are defined as the top 25% in terms of scoring in the CalEnviroScreen. CalEnviroScreen is a tool that identifies communities that are most vulnerable to pollution by using environmental, health, and socioeconomic data to produce a score for every census tract within the state of California.

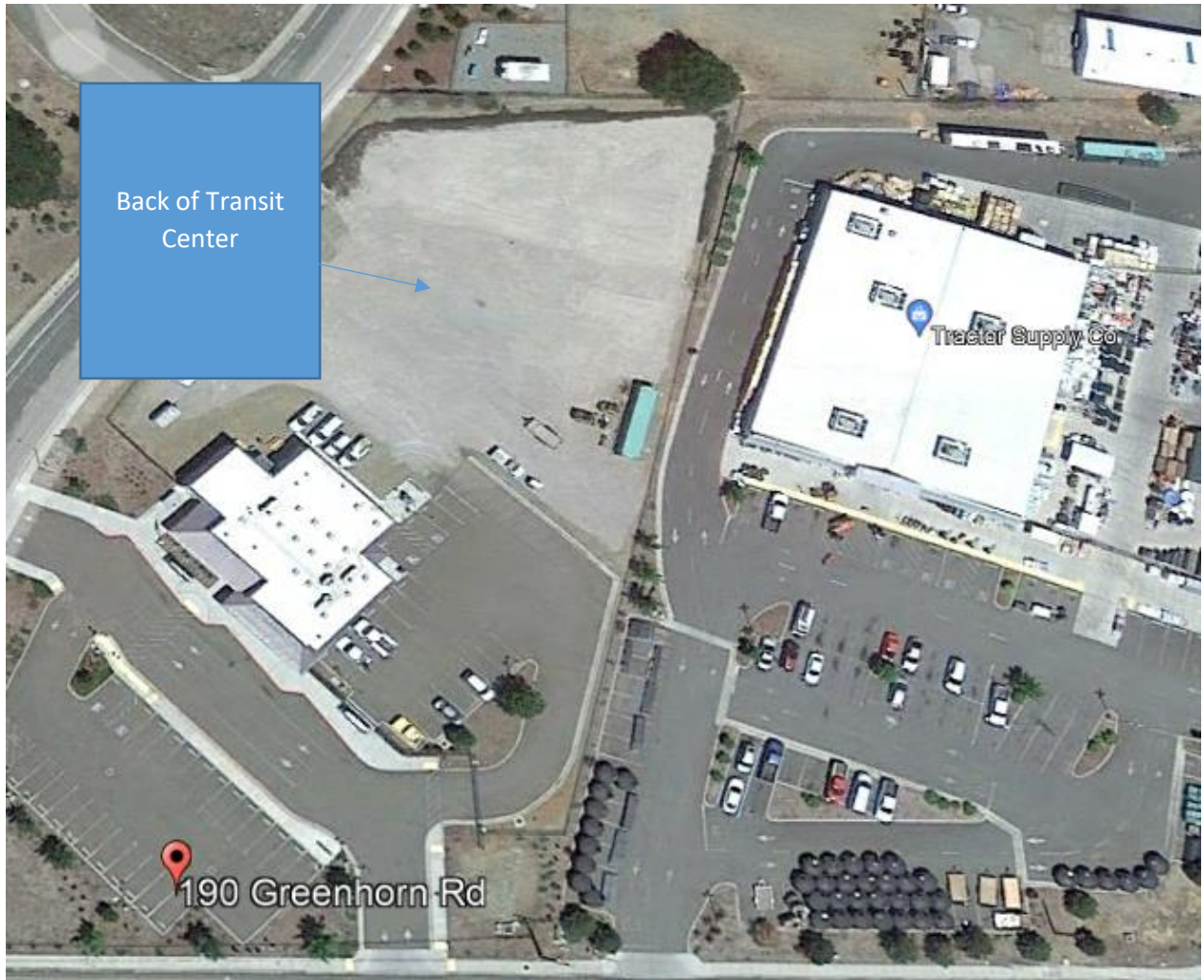
Based on county listed in the latest version of CalEnviroScreen, Siskiyou County does not service any disadvantaged communities.

**Section G: Workforce Training**

STAGE training will come from bus manufacturers and station suppliers. Stage plans to take advantage of any trainings that the technology providers may offer. Agency overall system orientation, first responders training, bus operators training, facilities maintenance staff training, mechanics trainings, service workers training and towing service providers training







Siskiyou County Transit Station/General Services Office

## **Section H: Potential Funding Sources**

### **Potential Funding Opportunities for Buses:**

California Air Resources Board  
Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project  
State Volkswagen Settlement Mitigation  
Carl Moyer Memorial Air Quality Standards Attainment Program  
Cap-and-Trade Funding  
Low Carbon Fuel Standard  
California Transportation Commission  
Solution for Congested Corridor Programs  
California Department of Transportation  
Low Carbon Transit Operations Program  
Transportation Development Act  
Transit and Intercity Rail Capital Program  
Transportation Development Credits  
Southern California Edison Ready Charge Program  
California Energy Commission

### **Potential Funding Opportunities for Infrastructure:**

Energy Infrastructure Incentives for Zero-Emission Commercial Vehicles  
Medium and Heavy-Duty Charging and Refueling Infrastructure Projects  
Clean Transportation Program (CTP)  
Utility Programs

## **Section I: Start-up and Scale-Up Challenges**

The financial requirements are the most significant challenges for STAGE. The hydrogen buses and infrastructure are more expensive to produce and maintain. Financial support from the federal, state, and local governments will be necessary to achieve the Innovative Clean Transit regulation targets.

Siskiyou County is a rural mountainous community and our buses travel an average of 244 miles a day. The electric bus can travel a total of 140 miles in one charge thus making the electric bus non-effective. As we understand so far, the Hydrogen can travel 300 miles and would be the right choice for STAGE.

A challenge facing long-term transition planning is the uncertainty around the performance and availability of zero-emission vehicles as well as the infrastructure. As we transition our capital and operating budgets will increase and funding will be required to maintain the level of service to our community.