

**TRANSIT SERVICES COMMISSION  
WESTERN NEVADA COUNTY  
AGENDA  
Wednesday January 24, 2024, 8:30 A.M.  
GRASS VALLEY CITY COUNCIL CHAMBERS  
125 E. MAIN ST.  
GRASS VALLEY, CA 95945**

Duane Strawser, NSAQMD, Member-at-large, Chair  
Ed Scofield, Supervisor, District 2, County of Nevada, Vice-chair  
Daniela Fernandez, Mayor, City of Nevada City,  
Tom Ivey, Councilmember, Grass Valley City Council  
Sue Hoek, Supervisor, District 4, County of Nevada  
Carly Pacheco, FREED, Member-at-Large

**AGENDAS ARE AVAILABLE HERE:** <https://www.nevadacountyca.gov/3559/Governance>

**Virtual Link**

Topic: **Transit Services Commission**  
Time: Jan 24, 2024 08:30 AM Pacific Time (US and Canada)

Join Zoom Meeting  
<https://us06web.zoom.us/j/84555753150?pwd=uuMJ95ueQHVwubrFCNzQ6V1OyLhqLg.1>

Meeting ID: 845 5575 3150  
Passcode: 587292

**REGULAR MEETING:** 8:30 A.M.

**STANDING ORDERS:** Call the Meeting to Order.

**PLEDGE OF ALLEGIANCE**

.....  
ANY MEMBER OF THE AUDIENCE DESIRING TO ADDRESS THE COMMISSION ON A MATTER ON THE AGENDA, please come to the podium when the item number and subject matter are announced. When recognized, please provide your name and address for the record. In order that all interested parties have an opportunity to speak, please limit your comments to the specific item under discussion. For items not on the agenda, please refer to the Public Comment section.  
.....

1. **Call to Order**
2. **Roll Call**
3. **PUBLIC COMMENT:** Members of the public may make comments at this time on any items not appearing on the agenda that are of interest to the public and are within the jurisdiction of the Commission, provided that no action shall be taken unless otherwise authorized by Section 54954.2 of the Ralph M. Brown Act.

1. The total amount of time allotted for receiving such public comment may be limited to not less than 15 minutes during any regular Commission meeting.
2. The Chairman may limit any individual to not less than 3 minutes. Time to address the Commission will be allocated based on the number of requests received. Not all members may be allowed to speak if the total time allocated expires.

**CONSENT ITEMS:** These items listed are considered routine and non-controversial, and will be acted on by the Commission at one time without discussion. Any Commission member, staff member or interested party may request that an item be removed from the consent agenda for discussion.

4. **Approve Minutes of the November 8, 2023 Commission Meeting** (pages 1 - 3)  
**Recommendation:** None

**ACTION ITEMS:**

5. **Approve Professional Service Contract with Fleet Maintenance Consulting for an Electrical Safety Program for High Voltage Electric Vehicles**  
**Recommendation:** Approve the proposed contract (page 4 - 24)

**INFORMATIONAL ITEMS:**

6. **Manager's Report:** (pages 25 - 28)  
**Recommendation:** None
7. **Nevada County Connects Operations Report** (pages 29 - 37)  
**Recommendation:** Accept the report
8. **Nevada County Now Operations Report** (pages 38 - 42)  
**Recommendation:** Accept the report

**10. COMMISSIONER COMMENTS AND ANNOUNCEMENTS**

**The next scheduled Transportation Services Commission meeting is on Wednesday March 20, 2024 at 8:30 AM at Grass Valley City Hall, 125 E. Main St., Grass Valley CA95945 unless otherwise noticed.**

**11. ADJOURNMENT**

**This agenda was posted 72 hours in advance of the meeting at the Eric Rood Administrative Center, the Town of Truckee Administrative Center, the City Hall of Grass Valley and the [www.goldcountrystage.com](http://www.goldcountrystage.com) website.**

<b>COMMONLY USED ACRONYMS</b> <b>TRANSIT SERVICES COMMISSION (TSC)</b>
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ADA	Americans with Disabilities Act
ADT	Average Daily Trip
APTA	American Public Transportation Association
ARRA	American Recovery and Reinvestment Act
ARB	Air Resources Board (same agency as CARB)
ATCI-MAPCO	Accessible Transportation Coalition Initiatives/Mobility Action Plan Coalition
BOS	Board of Supervisors
CAL-ACT	California Association for Coordinated Transportation
CAL-TIP	California Transit Indemnity Pool
CALTRANS	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CDBG	Community Development Block Grant
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
CMAQ	Congestion Mitigation and Air Quality
CNG	Compressed Natural Gas
GCL	Gold County Lift
GCS	Gold County Stage
CSAC	California State Association of Counties
CT	Caltrans
CTA	California Transit Association
CTAA	Community Transportation Association of America
CTC	California Transportation Commission
CTP	California Transportation Plan
CTS	Community Transit Service
CTSA	Consolidated Transportation Service Agency
CTSGP-CTAP	California Transit Security Grant Program-California Transit Assistance Fund
DBE	Disadvantaged Business Enterprise
DPW	Department of Public Works (formerly DOTS)
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ERC	Economic Resource Council
FFY	Federal Fiscal Year
FTA	Federal Transit Administration
FY	Fiscal Year
GCS	Gold Country Stage
GV	Grass Valley
ITS	Intelligent Transportation Systems
JARC	Job Access & Reverse Commute
JPA	Joint Powers Agreement
LAFCO	Local Agency Formation Commission
LCTOP	Low Carbon Transit Operations Program
LOP	Lake of the Pines
LOS	Level of Service
LTF	Local Transportation Fund
LWW	Lake Wildwood
MAP	Mobility Action Partners
MAP 21	Moving Ahead for Progress in the 21 <sup>st</sup> Century Act (Federal)
MM	Mobility Management
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MTC	Metropolitan Transportation Commission

<b>COMMONLY USED ACRONYMS</b> <b>TRANSIT SERVICES COMMISSION (TSC)</b>
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MUB	Multi-use building
NC	Nevada City
NCCA	Nevada County Contractors' Association
NCTC	Nevada County Transportation Commission
NEPA	National Environmental Policy Act
NSAQMD	Northern Sierra Air Quality Management District
NSJ	North San Juan
OWP	Overall Work Program
PAC	Project Advisory Committee
PCT	Placer County Transit
PCTPA	Placer County Transportation Planning Agency
PV	Penn Valley
PTMISEA	Public Transportation Modernization Improvement & Service Enhancement Act.
PUC	Public Utilities Commission
R/W	Right-of-Way
RAB	Roundabout
RCTF	Rural Counties Task Force
RDA	Redevelopment Agency
RFP	Request for Proposal
RIP	Regional Improvement Program
RPA	Rural Planning Assistance
RR	Rough & Ready
RT	Route
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
SACOG	Sacramento Area Counsel of Governments
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SDA	Special Development Areas
SEDD	Sierra Economic Development District
SOV	Single Occupant Vehicle
SBD	Supervising Bus Driver
SSTAC	Social Services Technical Advisory Council
STA	State Transit Assistance
STIP	State Transportation Improvement Program
TAC	Transit Citizen's Advisory Committee
TART	Tahoe Area Regional Transit
TDA	Transportation Development Act
TDP	Transit Development Plan
TE	Transportation Enhancement
TNT/TMA	Truckee-North Tahoe Transportation Management Association
TPA	Triennial Performance Audit
TRPA	Tahoe Regional Planning Agency
TSC	Transit Services Commission
TSD	Transit Services Division
TSM	Transit Services Manager
TTC	Tinloy Street Transit Center
VMT	Vehicle Miles of Travel
VSH	Vehicle Service Hour
VSM	Vehicle Service Miles

Updated 5-1-17

# **TRANSIT SERVICES COMMISSION**

## Minutes of Meeting

Wednesday, November 8, 2023, 1:00 PM

The scheduled meeting of the Transit Services Commission, Western Nevada County, was held at the Grass Valley City Hall, 125 E. Main St., Grass Valley CA 95945 and pursuant to Governor Gavin Newsom's Executive Order pertaining to the convening of public meetings in response to the COVID-19 pandemic, the County of Nevada also held the scheduled meeting of the Transit Services Commission virtually via Zoom from the Grass Valley City Hall. The November 8, 2023 meeting of the Transit Services Commission (TSC) was opened by Commissioner Duane Strawser.

**1. Call to Order:** Commissioner Duane Strawser called the meeting to order at 1:07 PM. Commissioner Duane Strawser asked Transit Manager, Robin VanValkenburgh to lead the Pledge of Allegiance.

## **2. Roll Call:**

### **Commissioners Present:**

Lou Ceci, Alternate, City of Nevada City

Ed Scofield, County Representative, District 2, Nevada County Board of Supervisors, Vice-Chair

Sue Hoek, Supervisor, District 4, County of Nevada

Tom Ivy, Councilmember, City of Grass Valley

Duane Strawser, NSAQMD, Member-at-Large, Chair

### **Commissioners Absent:**

Carly Pacheco, FREED, Member-at-Large

### **Staff Present:**

Robin Van Valkenburgh, Transit Services Manager

### **3. Public Comment:**

There was one public comment, Al Bulf commented about the 80 corridor-rail improvements, looking at the Hwy 20 corridor out of Marysville. He mentioned the need to minimize auto intrusion into the Tahoe basin via rail improvements into the basin area and noted the Biden Administration has allocated 16 billion dollars for rail projects. There were no further public comments by telephone, email or in person.

The new Public Works Director, Heba El-Guindy was introduced to the Transit Service Commission and was welcomed by everyone.

CONSENT ITEMS: These items listed are considered routine and non-controversial and will be acted on by the Commission at one time without discussion. Any Commission member, staff member or interested party may request that an item be removed from the consent agenda for discussion.

### **4. Approve Minutes of the September 20, 2023 Commission Meeting**

Commissioner Ed Scofield motioned to approve the minutes of the September 20, 2023 minutes.

Commissioner Sue Hoek seconded the motion, on a roll call vote the motion was unanimously passed.

### **ACTION ITEMS:**

### **5. Approve 2024 Transit Services Commission Meeting Schedule**

Commissioner Ed Scofield called for a motioned to approve the proposed Transit Commission Meeting schedule. Commissioner Lou Ceci seconded the motion, on a roll call vote the motion was unanimously passed.

### **6. Approve Proposed SB125 Transit Project List**

Commissioner Sue Hoek motioned to approve the Proposed SB125 Transit Project List, Commissioner Ed Scofield seconded the motion, on a roll call vote the motion was unanimously passed.

### **INFORMATIONAL ITEMS:**

### **7. Manager's Report: Oral.**

The Manager's report was unanimously accepted.

### **8. Nevada County Connects Operations Report**

The Nevada County Connects report was unanimously accepted.

**9. Nevada County Now Operations Report**

The Nevada County Now report was unanimously accepted.

**10. COMMISSIONER COMMENTS AND ANNOUNCEMENTS**

The next scheduled Transportation Services Commission meeting is on Wednesday January 24 at 8:30 AM at Grass Valley City Hall, 125 E. Main St., Grass Valley CA95945 unless otherwise noticed.

**11. ADJOURNMENT**

Commissioner Duane Strawser called for a motion to end the November 8, 2023 Transit Services Commission meeting, Commissioner Lou Ceci motioned to end the Transportation Services Commission meeting, Commissioner Tom Ivy seconded the motion, on a roll call vote, the motion was unanimously accepted. The Transit Services Commission meeting ended at 2:20 PM.

Respectfully submitted by Elizabeth Nielsen, Accounting Technician, Nevada County Public Works Department



**COUNTY OF NEVADA**  
**COMMUNITY DEVELOPMENT AGENCY**  
**DEPARTMENT OF PUBLIC WORKS**  
**TRANSIT SERVICES DIVISION**  
 950 MAIDU AVENUE, NEVADA CITY, CA 95959-8617  
 (530) 477-0103 Toll Free (888) 660-7433 FAX (530) 477-7847  
<http://new.nevadacounty.com>

Heba El-Guindy,  
 Director of Public Works

Robin Van Valkenburgh, Transit Services Manager

**TRANSIT SERVICES COMMISSION**  
**Action Item**

**MEETING DATE:** January 24, 2024

**TO:** Transit Services Commission

**FROM:** Robin Van Valkenburgh, Transit Services Manager

**SUBJECT:** **Approve a Professional Services Contract with Fleet Maintenance Consulting for an Electrical Safety Program for High Voltage Electric Vehicles**

**RECOMMENDATION:** Approve the proposed Contract.

**FUNDING:** Funding for the proposed contract is via State Local Transportation Funds (LTF) and will require an amendment to the Transit Services Fiscal Year 2023-24 budget.

**BACKGROUND:** The State of California adopted the California Air Resources Board (CARB) Innovative Clean Transit (ICT) Regulation in 2018, with the regulation going into effect on October 1, 2019. The ICT requires transit agencies to gradually transition revenue fleets to zero-emission vehicles, with the goal of full transition by 2040. Beginning in 2026 small transit operators, agencies with under 100 vehicles in fleet, are required to purchase at least 25 percent of replacement vehicles as zero-emission vehicles gradually increasing to 100 percent of replacement vehicles by 2030.

Consistent with the ICT regulation, and with the Transit Services Commission's approval, staff have pursued a more aggressive transition to zero-emission vehicles. On February 23, 2021, the Board of Supervisors approved Resolutions No 21 – 046 and No 21-047 accepting a FY2019-20 EPA Targeted Airshed grant for the purchase of two 35-ft Low-Floor Battery Electric Zero-Emission transit buses, Depot slow-charger, on-route fast charger and associated construction costs for the purchase and installation.

Included in the ICT regulation is the requirement for a zero-emission bus rollout plan. Nevada County Transit Services contracted with Frontier Energy/Momentum for the development of this plan. On August 8, 2023 the Board of Supervisors approved the County of Nevada Transit Services Zero Emission Bus rollout Plan by Resolution No. 23-416.

Within the Zero Emission Bus Rollout Plan are sections discussing Facilities and Workforce Development. The proposed professional services contract with Fleet Maintenance Consulting for an Electrical Safety Program for High Voltage Electric Vehicles is designed to address both of these components, providing detailed Standard Operating Procedures for all personnel who may come into contact with High Voltage

Electric Vehicles as well as providing a list of all necessary facility equipment and personal protective equipment (PPE).

This project will ensure that County personnel have the necessary information, knowledge, and equipment to safely operate and maintain current and future High Voltage Electric Vehicles.

The proposed cost of the contract is \$44,400 and includes, but is not limited to, the following deliverables.

1. Package of Standard Operating Procedures (SOPs) for Battery Electric Buses, including but not limited to (\$24,600):
  - a) Vehicle Maintenance
  - b) Vehicle Repair
  - c) Towing
  - d) Parking and Storage
  - e) Personal Protective Equipment (PPE)
  - f) Lockout/Tagout
  - g) Vendor Maintenance
  - h) Accident Response
2. Principles to guide the creation & development of your ESP
3. PPE Recommendations
4. Training Recommendations
5. Audit Recommendations
6. Job Role Responsibilities
7. A comprehensive training program covering all the Standard Operating Procedures and recommendations delivered in this scope of work (\$7,700).
8. Technician Training: A complete training program to “qualify” technicians for HV repairs and troubleshooting, zero voltage verification and inspections. This also includes full training on PPE and its use, as well as the proper procedures for the GILLIG buses and equipment that Nevada County operates. This includes online sessions for HV Awareness, Contact Release, DVOM training and a one-day, in-person, training session (additional days are available if desired), however we are convinced that one-day training is sufficient, if all online courses are completed before the in-person sessions begin (\$12,100 inclusive of travel).

Staff requests that the TSC approve the proposed contract which will then be taken to the Board of Supervisors for approval of the contract and budget amendment.

Please contact me if you have any questions prior to the January 24, 2024 TSC Meeting.

TT:RVV

January 10, 2024

Robin VanValkenburgh  
Nevada County Transit  
950 Maidu Avenue  
Nevada City, CA 95959  
530-470-2833  
robin.vanvalkenburgh@co.nevada.ca.us

**Subject: Quotation for Electrical Safety Program for HV Electrical Vehicles**

Dear Robin,

Thank you for the opportunity to quote the complete Electrical Safety Program for Nevada County. This plan entails all aspects of your maintenance operation for Battery Electric Buses (BEBs) and is intended to ensure Nevada County meets all OSHA, NFPA and state requirements.

**Scope of Work**

Our Electrical Safety Plan covers the following items:

1. Package of Standard Operating Procedures (SOPs) for Battery Electric Buses, including but not limited to:
  - a) Vehicle Maintenance
  - b) Vehicle Repair
  - c) Towing
  - d) Parking and Storage
  - e) Personal Protective Equipment (PPE)
  - f) Lockout/Tagout
  - g) Vendor Maintenance
  - h) Accident Response
  - i) And more...
2. Principles to guide the creation & development of your ESP
3. PPE Recommendations
4. Training Recommendations
5. Audit Recommendations
6. Job Role Responsibilities

Your plan will include all of these elements and may include other items specific to Nevada County's operation as they arise. The final deliverable will be both a physical copy of the plan and a set of electronic files.

Our Electrical Safety Program is devised to comply with all applicable laws and standards as embodied in OSHA and NFPA 70e, as well as with the OEM manufacturer's instructions for your vehicles and chargers.

It is our approach to include key members of your staff during the project, to assist with the process of embedding a new culture in the organization. It provides the opportunity for key staff to ask questions during the process, grow in confidence with the technology, and form a base level of understanding regarding new procedures and safety protocols that will accompany your new ZEB fleet.

For clarity our program provides policies and procedures specifically related to providing safety around HV electric vehicles. It does not include facility-related electrical safety matters.

### **Pricing**

We have arrived at a price of **\$24,600** for the plan including transportation to the facility in Nevada City. This does not include any formal training of staff or maintenance employees.

To complete the program of the ESP we recommend the implementation of a comprehensive training program. This is divided into two categories for this quote:

**ESP/SOP Training:** A comprehensive training program covering all the Standard Operating Procedures and recommendations delivered in this scope of work. The training of all applicable employees on the SOP's and plan, as well as the auditing protocols and calendar would be included. Each SOP would be reviewed, explained, trained, and amended as per the approval of assigned agent of Nevada County. FMC would be made available after the training period for further explanations and clarification as well as for new hires, when applicable. The cost for this implementation separately, would be **\$7,700** which is based on a one-time trip, of Nevada County's timing, to Nevada County's facility for one week and travel is included.

**Technician Training:** A complete training program to "qualify" technicians for HV repairs and troubleshooting, zero voltage verification and inspections. This also includes full training on PPE and its use, as well as the proper procedures for the GILLIG buses and equipment that Nevada County operates. This includes online sessions for HV Awareness, Contact Release, DVOM training and a one-day, in-person, training session (additional days are available if desired), however we are convinced that one-day training is sufficient, if all online courses are completed before the in-person sessions begin. The price for this training would be **\$12,100** inclusive of travel, online licenses, and training materials.

Thank you again for the opportunity to quote Nevada County for the development and delivery of an Electrical Safety Program and for your interest in working with FMC as a partner in your continued safety journey.

I will be available to discuss the details of the program and look forward to discussing it with you.

Sincerely,

Frank Dopp  
Fleet Maintenance Consulting, Inc.

# County of Nevada Transit Services Zero Emission Bus Rollout Plan

Prepared by: Matthieu Goudreau, Momentum  
Reviewed by: John Friedrich, Momentum



Transit Services Commission



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## Section A – Transit Agency Information

The County of Nevada Transit Services Division, Nevada County Connects (NCC), provides local and regional fixed route bus service to the cities, towns, and unincorporated areas of western Nevada County, including Nevada City, Grass Valley, Penn Valley, Rough and Ready, Lake Wildwood, Alta Sierra, Lake of the Pines, and the regional hub at the Auburn Amtrak station.

Transit services began in 1975 when Nevada County entered into a Joint Powers Agreement (JPA) between the cities of Grass Valley and Nevada City. The system began with only two routes serving Grass Valley and Nevada City. The system has subsequently grown over the years and now operates six routes throughout western Nevada County. Today, NCC operates a total of 11 buses, with seven buses at peak pullout. The service is supported by NCC’s fleet of six non-revenue vehicles. All the buses and non-revenue vehicles are owned and operated by NCC and are stored at one facility, the Nevada County Operation Center (NCOC).

In addition to its traditional fixed route transit services, NCC administers an origin-to-destination/door-to-door paratransit service for persons with disabilities. Specifically, the paratransit system serves those who are unable to use the fixed route bus system, due to a mental or physical disability, as mandated by the Americans with Disabilities Act (ADA). The paratransit service is provided by Nevada County Now (NCN), which sub-contracts the operation of the 12-bus fleet. The NCN fleet is currently being transitioned from being operator owned to being owned by NCN, with eight of the 12 operator vehicles having already been replaced with NCN owned vehicles. The fleet is currently stored at the operator’s facility, which lacks adequate space to accommodate the planned transition and expansion of the fleet. Alternative locations for storage are currently being explored by the Nevada County Transit Services Division.

Table 1 Agency Information Summary

Section A – Information Request	Transit Agency Response
Transit Agency Name	Nevada County Connects
Mailing Address	12350 La Barr Meadows Rd., Suite 3 Grass Valley, CA 95949
Transit Agency Air District	Northern Sierra Air Quality Management District
Total Number of buses in Annual Maximum Service	11 fixed route standard buses and 12 paratransit cutaway buses.
Population of the Urbanized Area Served	80,000
General Manager Contact Information	Robin Van Valkenburgh, Transit Services Division Manager, 530-470-2833, <a href="mailto:robin.vanvalkenburgh@nevadacountyca.gov">robin.vanvalkenburgh@nevadacountyca.gov</a>

## Section B – General Rollout Information

The goal of this rollout plan is to outline NCC’s approach to transitioning 100% of its existing bus fleet to zero emission buses (ZEB), inclusive of any organizational or infrastructure changes necessary to accommodate new technologies. NCC intends to begin transitioning to ZEBs in a manner that avoids the early retirement<sup>1</sup> of any internal combustion engine (ICE) vehicles and is compliant with the Innovative Clean Transit (ICT) regulatory requirement of achieving 100% ZEB adoption by 2040.

NCC’s transition to ZEBs is currently underway with the procurement of two battery electric buses (BEB), which will replace existing ICE buses in September of 2023. These initial vehicles will be used to assess the performance and requirement of operating BEBs, the results of which will be used to inform and adjust the rollout plan. The rollout plan currently aims to utilize BEBs to achieve a 100% transition from ICE buses to ZEBs, however, the feasibility of hydrogen fuel-cell buses (HFCB) will continue to be monitored for potential inclusion. This focus was determined from the alignment of BEB capabilities with the performance needed to serve the NCC transit system, in addition to BEB technology being less costly and more mature than HFCB.

The immediate focus of the transition is NCC’s fleet of standard buses, due to their longer expected useful life of 10 years compared to the 8-year expected life of cutaway buses used by NCN’s paratransit fleet. The cutaway buses operated by NCN will be transitioned to ZEBs beginning in 2029, which will coincide with the completed construction of a new NCN fleet storage location. The transition of the cutaway buses will comply with the ICT regulation and not require early retirements of vehicles.

The rollout plan was created by Momentum and Frontier Energy in collaboration with Nevada County Connect. The rollout plan was approved by the Nevada County Transportation Commission on June ##<sup>th</sup>, 2023 (Resolution ##). The approved resolution can be found in Appendix ## attached.

For more information regarding the rollout plan, please contact Robin Van Valkenburgh, Transit Services Division Manager, 530-470-2833, [robin.vanvalkenburgh@nevadacountyca.gov](mailto:robin.vanvalkenburgh@nevadacountyca.gov).

## Section C – Technology Portfolio

NCC is currently planning to transition to a 100% BEB fleet by 2040. NCC acknowledges that there may be challenges associated with operating all its routes using BEB, therefore it has scheduled a review period to assess the feasibility of HFCBs as part of the rollout. Should HFCB technology development lead to products that are cost competitive with BEB technology and address operational gaps in service, the rollout plan will be revised to include a mixed-fueled deployment strategy, utilizing both BEB and HFCB. Based on the current ZEB offerings, the infrastructure required to support each technology, and the challenges associated with operating a mixed-fuel fleet, NCC is electing to transition 100% of its fleet to BEBs.

NCC is currently replacing two (2) ICE buses with BEBs, which are expected to enter service in September, 2023. These BEB will initially be supported by in-depot plug-in chargers, with the addition of

<sup>1</sup> The only exception to this rule is where ICE vehicles must be retired near the end of their useful lives to comply with ZEB grant funds awarded to NCC. This is the case for the EPA Targeted Airshed Grant Program awarded to NCC which requires that a 2015 and a 2016 standard bus are replaced by the funded ZEB.

on-route inductive, wireless chargers planned for 2025. The effectiveness of the BEBs and charging equipment will be evaluated to determine which portion of NCC routes can be reliably assigned to BEBs under various operating conditions.

### Route Assessment for BEB Operations

NCC buses are assigned to operate a single route each day, except for Route 2 and Route 3 Loma Rico Loop (LRL) which are operated by a single bus. Monday to Friday operations include all routes and represent the most demanding service days. Apart from Route 5, each daily vehicle assignment requires 185 miles or less in range to complete the service. This range requirement will be used to inform NCC’s procurement of BEBs. Route 5, the only vehicle assignment to exceed 185 miles, includes five daily connections between Grass Valley and Auburn along highway 49, with 300 miles of service.

Table 2 Monday to Friday Route Summary

Monday to Friday Routes	Miles (Revenue and Non-revenue)	Revenue Time (Hours)	Non-revenue Time for Opportunity Charging
Route 1	129	10.3	117 minutes
Route 2 + Route 3 LRL	48	3.3	82 minutes
Route 3 GVL	127	7.0	54 minutes
Route 4	185	13.8	78 minutes
Route 5	300	10.3	40 minutes
Route 5X	64	2.2	60 minutes
Route 6	140	6.8	360 minutes
Route 7	156	6.0	360 minutes

It is expected that BEBs will be able to operate most routes in most conditions on a single charge. In poor conditions, BEBs will utilize their scheduled non-revenue (layover) time for opportunity charging on an as-needed basis. Operating Route 5 will be more challenging due to the longer mileage requirement. However, the scheduled duration of non-revenue time could be increased to allow for more opportunity charging time to extend the daily range of BEBs. Ultimately, NCC’s approach to serving longer routes will be informed by the performance of initial BEB deployments. Should challenges associated with BEB range emerge, NCC will explore BEBs with longer range and the addition of FCHBs which may be better suited to operating longer routes.

## Section D – Current Bus Fleet Composition and Future Bus Purchase

### Current Fleet Inventory and Policies

NCC’s current fleet inventory includes 11 standard buses and 12 cutaway buses. The standard bus fleet serves NCC’s fixed routes and are standardized at 30-foot lengths. As presented in Table 3, the standard bus fleet includes eight buses that were procured in 2016, meaning that there is an opportunity to transition a large portion of the fleet as this group of buses reach their scheduled replacement period.

The cutaway buses used to deliver paratransit services and are standardized at 22-foot lengths. The four 2013 cutaway buses are owned by NCN’s subcontractor, while the eight remaining cutaway buses are owned by NCN and are leased to the subcontractor.

Table 3 Current Bus Fleet Composition

Number of Buses	Engine Model Year	Bus Model Year	Fuel Type	Bus Type
1	2015	2015	Diesel	Standard
8	2016	2016	Diesel	Standard
2	2018	2018	Diesel	Standard
2*	2023	2023	Electric, depot and on-route charging	Standard
4	2013	2013	Gasoline	Cutaway
4	2018	2018	Gasoline	Cutaway
2	2021	2021	Gasoline	Cutaway
2	2022	2022	Gasoline	Cutaway

\* The two 2023 standard buses have been received by NCC and will enter service in September, 2023. These buses will replace one 2015 and one 2016 standard bus.

NCC does not have an overhaul strategy for its fixed route or paratransit buses. If a bus has not met its expected useful life, repairs are performed on an as-needed basis to maintain vehicle operations. Once a bus reaches its expected useful life it is designated for retirement, after which they are taken to the Nevada County Corporation Yard and prepped for auction. Nevada County Fleet Services handles the sale and document administration for all county vehicles, including auctioned buses.

The acquisition of new buses is determined by useful life expectations, funding availability, and service demand. Procurement is completed in conjunction with the Nevada County Procurement Department and must be approved by the Nevada County Board of Supervisors and the Nevada County Transportation Commission.

### Future Fleet Replacement and Transition

The transition to ZEBs will begin immediately for the standard buses, with the first of two Gillig BEBs scheduled to enter service in September, 2023. The Gillig BEBs procured have battery sizes of 444 kWh with a range of 210 miles on a single charge. This range is well above the 150 miles required by most routes, however the impacts of real-world conditions, battery degradation, and battery state of charge considerations are expected to impact performance and operations. To mitigate the risks associated with lack of range, future procurements will aim for battery capacities at or above 564 kWh, with corresponding ranges of 300 miles per charge. These procurements will coincide with the retirement of the existing ICE buses, as they reach the end of their useful lives. The transition of standard buses will begin with 100% BEBs. In addition to the change in propulsion, the standard buses which are currently standardized at 30-foot lengths will be replaced with 35-foot BEBs. The standard bus replacement schedule is outlined in Table 4.

Table 4 Standard Bus Replacement Schedule

Timeline	#of Buses Purchased	# of ZEB Purchases	% of ZEB Purchases	ZEB Bus Types	ZEB Fuel Types	# of ICE Bus Purchases	% of ICE Bus Purchases	Cumulative ICE Bus	Cumulative BEB Count	% BEB Fleet
2023	2	2	100%	Standard	BEB	0	0%	9	2	15%
2026	7	7	100%	Standard	BEB	0	0%	2	9	85%
2028	2	2	100%	Standard	BEB	0	0%	0	11	100%

The next cutaway bus procurement is planned for 2024 and will include five new ICE paratransit vehicles. Of the five buses to be procured, four will be replacements for existing vehicles and one will constitute an expansion to the cutaway fleet to 13 buses. This will also complete the ownership transition to NCN, with the last four cutaways being replaced by transition subcontractor fleet ownership to NCN fleet ownership.

The contract with the paratransit operator is set for renegotiation in 2028, at which point NCC plans to begin procuring a new facility to store the paratransit fleet, capable of accommodating an eventual 13 cutaway BEBs. The adoption and service entry of paratransit BEBs is planned to begin in 2029, after the renegotiation and potential construction of a new facility.

Table 5 Cutaway Bus Replacement Schedule

Timeline	#of Buses Purchased	# of ZEB Purchases	% of ZEB Purchases	ZEB Bus Types	ZEB Fuel Types	# of ICE Bus Purchases	% of ICE Bus Purchases	Cumulative ICE Bus	Cumulative BEB Count	% BEB Fleet
2024	5	0	0%	Cutaway	NA	5	100%	13	0	0%
2026	4	0	0%	Cutaway	NA	4	100%	13	0	0%
2029	2	2	100%	Cutaway	BEB	0	0%	11	2	15%
2030	2	2	100%	Cutaway	BEB	0	0%	9	4	31%
2032	5	5	100%	Cutaway	BEB	0	0%	4	9	69%
2036	4	4	100%	Cutaway	BEB	0	0%	0	13	84%

As part of NCC and NCN’s conversions to 100% ZEB fleets, converting or repowering existing ICE buses to battery electric powertrains is not being considered. Table 6 below shows the expected cost (before vouchers, incentives, and tax credits) and range of standard and cutaway buses to be procured as part of the transition.

Table 6 Range and Estimated Costs of Future ZEB Purchases

Timeline	# of ZEBs	Bus Type(s)	Required BEB Range	Estimated Unit Cost (2023 \$USD)
2023	2	Standard	210 Miles	\$982,192
2026	7	Standard	300 Miles	\$1,100,000
2028	2	Standard	300 Miles	\$1,100,000
2030	2	Cutaway	80 miles	\$242,000
2032	5	Cutaway	80 miles	\$242,000
2036	4	Cutaway	80 miles	\$242,000
2037	2	Cutaway	80 miles	\$242,000

Figure 1 First Battery Electric Bus Adopted by NCC



## Section E – Facilities and Infrastructure Modifications

### Nevada County Operations Center – standard bus storage and maintenance

The primary transit facility operated by NCC is located at the Nevada County Operations Center (NCOC). The NCOC has functionality that extends beyond transit operations as it consolidates municipal, maintenance, and transit divisions on a single site to enable efficient workflow and interaction between staff and services. The site provides separate parking for heavy equipment vehicles, full-sized buses, and light-duty trucks. Additionally, the site includes a de-mudding and vehicle wash building for end of duty-cycle servicing. The main structure houses administration offices, staff rooms, and fleet maintenance operations, with eight heavy-equipment bays and four light-duty bays.

The site has been developed with sufficient space to accommodate the full transition of the standard bus fleet and associated infrastructure. Further, the roof structure of each building on site was designed to support future solar panel installations, to offset the energy needs of a battery electric fleet – both transit and municipal. Various solar concepts are being investigated to understand the financial feasibility of solar assets to be deployed. To date, no determination has been made on whether to proceed with solar panel installations and at what scale. For context, the most recent concept explored 25,000 square feet of solar panels and would satisfy 27% of the energy needs of a fixed route BEB fleet.

The charging strategy for standard buses at the NCOC is plug-in depot charging. The initial deployment of two standard Gillig BEBs will be supported by a temporary 50kW charger, which will be replaced by a

dual port 62.5kW (125kW total) charger later this year. The existing electrical infrastructure has the capacity to accommodate the initial chargers. However, to support the fleet's 100% transition to BEB, the facility will require five additional dual port chargers, requiring electrical infrastructure upgrades to be completed by 2026.

Figure 2 Nevada County Operations Center



### Tinloy Transit Hub – On-route opportunity charging

The Tinloy Transit Hub serves the NCC as a central hub, with all routes beginning and terminating at this location. The transit hub has been selected to house inductive, wireless chargers to enable opportunity (or on-route) charging. This site was selected to maximize the benefits of infrastructure and limit any changes to existing services. The shared use of opportunity chargers maximizes efficiency, as each route will have access. The opportunity charging will provide BEBs with additional range to ensure that NCC's longer routes are feasible using BEB technology, limiting any changes to the existing service schedule. Furthermore, the existing layover time scheduled for each route takes place at the Tinloy Transit Hub, meaning that no additional delay will be required to facilitate charging.

The planned chargers at the Tinloy Transit Hub are 300kW inductive, wireless chargers, with the first charger planned for installation in May 2025. In the future, two additional inductive chargers will be installed. The site does not currently have sufficient electrical capacity to support the 900kW total load that the three chargers operating in parallel would require, necessitating infrastructure upgrades. NCC is working with its electric utility, Pacific Gas and Electric (PG&E), to align the timing of the infrastructure upgrades with the receipt of the first inductive charger. The item with the longest procurement lead time is the switchgear at 18 months. Given that the switchgear is a critical component for the upgrade, the completion of the infrastructure installation is planned for January 2025 – well ahead of the planned charger installation in May, 2025. To prevent any delays or additional costs associated with future infrastructure upgrade projects, the site will be proactively developed (future-proofed) with sufficient infrastructure to accommodate all three 300kW inductive chargers.

Figure 3 Tinloy Transit Hub



### Future Paratransit Facility – Cutaway bus storage and maintenance

The paratransit fleet is currently housed at a facility owned by NCN’s subcontracted operator. In addition to ownership concerns, the existing site is spaced constrained such that it is not considered a feasible location for storing and charging cutaway BEBs. The County of Nevada Transit Services division is currently exploring alternative sites capable of storing the entire fleet of 13 cutaway buses during the transition to BEBs. Ultimately, the site will be equipped with sufficient charging infrastructure to provide overnight charging for all vehicles. No charger specifications have been confirmed. However, it is expected that 19.2kW Level 2 AC charging will be sufficient to support the cutaway buses, which have smaller batteries than their standard bus counterparts. In total, 14 chargers are planned for installation to provide a one-to-one ratio of dispensers to buses, with one additional charger to provide redundancy and mitigate the impact of potential equipment failures.

### Facilities and construction timeline summary

The facility information and expected construction timeline for the NCC facilities involved in deploying and maintaining ZEBs are summarized in Table 7.

Table 7 Facilities Information and Construction Timeline

Division and Facility Name	Address	Main Functions	Types of Infrastructure	Service Capacity	Needs Upgrade?	Estimated Construction Date
NCC NCOG	950 Maidu Ave, Nevada City, CA	Storage, Maintenance, Fueling, and Charging	Depot Charging	12 Standard Buses	Yes	2025
NCC Tinloy Transit Hub	114 Tinloy Street, Grass Valley, CA	Charging	Opportunity (On-route) Charging	NA	Yes	2025
NCN Future Transit Facility	To be determined	Storage and Charging	Depot Charging	13 Paratransit Buses	Yes	2030



## Section G – Workforce Training

NCC is a strong believer in workforce development. This includes providing its staff with robust training programs to ensure that they are empowered to perform their duties in a manner that is both safe and effective. In terms of the new technologies to be adopted as part of the transition of BEBs, NCC aims to maintain traditional components of adopted BEBs using internal staff. This will include steering, wheels, tires, hydraulics, and body work. NCC is currently working with Gillig to contract with a third-party maintenance shop capable of servicing high-voltage and drivetrain components. NCC plans to perform day-to-day diagnostics and maintenance activities with major repairs on new BEB systems being deferred to contractors.

Internal training sessions have been procured as part of the initial BEB deployments to introduce staff to the new technologies, with planned adoption of a train-the-trainer model. Using maintenance documentation and initial training sessions provided by Gillig, NCC plans to develop ongoing internal employee training programs. The initial training on the two Gillig BEBs set to enter service in September, 2023 began in June 2023. The Gillig training program includes the following topics:

- Operator Instruction
- Gillig Battery Electric Bus Operator Training
- Maintenance Department General Vehicle Orientation
- Gillig Battery Electric Bus Service Personnel Training
- Air Systems and Brake
- Basic Bus Electrical System
- Multiplex Electrical System
- CNG System
- Hydraulic System
- EFAN System
- Allison Hybrid Familiarization
- BAE hybrid Familiarization
- Gillig Emissions
- Entrance/Exit Door Systems
- Gillig Battery Electric Bus Technician Training

The training programs will ensure that each staff segment knows the changes that will impact them as BEBs are adopted. Safety concerns will apply to all staff working in proximity to BEBs and associated infrastructure and equipment. Familiarity with battery electric technologies is not assumed as common knowledge among staff, so it is expected that staff will have many questions about how the technology works and how it will impact their roles. As a result of these considerations, the following training elements will be incorporated into NCC's training programs.

- All Staff – General Electrical Safety
  - High voltage safety procedures
  - Restricted bus access and functionality, such as lock-out/tag-out procedures.
  - Proper use of Personal Protective Equipment (PPE)
- BEB Operators – Vehicle Orientation and Operation
  - Vehicle familiarity – switches, controls, indicator/warning lights gauges, etc.
  - Battery state of charge and remaining operating time and range
  - Start up and shut down procedures
  - Driving characteristics, such as regenerative braking, acceleration, etc.
  - Depot charging protocols
  - Enroute charging protocols (for applicable vehicles)
- Mechanics and Welders – Knowledge and Skillset Training

- Safe startup and shutdown procedures
- Preventative maintenance
- Electronic inverters
- Electric drive and transmission
- Batteries and energy management hardware & software
- High voltage systems
- Service Cleaners – Working in a high-voltage environment
  - Depot charging protocols (plug-in chargers)
  - Overnight parking configurations and procedures
  - Washing exterior and underside of buses

The maintenance of charging equipment and related infrastructure will be performed by contracted third party maintenance providers. This will include scheduled preventative maintenance and corrective maintenance in response to equipment failure.

To ensure that local emergency services are aware of BEB risks, NCC will circulate emergency response guides created by Gillig and the National Fire Protection Association. These guides present the procedures required to safely respond to emergency situations related to the vehicle and its high voltage systems, including occupant rescue, immobilization, direct hazards, access to occupants, stored energy, in case of fire or submersion, and more.

## Section H – Potential Funding Sources

The funding landscape for Californian transit agencies to transition to battery electric buses is robust and offers various opportunities to support this transition. NCC is actively tracking and pursuing several programs that aim to accelerate the adoption of zero-emission buses.

The most recent grant funds awarded to NCC were provided through the United States Environmental Protection Agency (EPA) Targeted Airshed Grant Program (2019-20), which funded the acquisition of NCC’s first two BEBs.

Additionally, NCC aims to leverage California Department of Transportation (Caltrans) State Transit Assistance (STA) funds, which are generated by a sales tax on fuel and diesel fuel. TDA funding allows each county, including Nevada County, to establish a quarter-cent sales tax to finance a wide variety of transportation projects, including transit operations, bus and rail projects, special transit services for disabled riders, pedestrian and bicycle facilities, and transportation planning. NCC is aware that the amount of money available for transit agencies varies from year to year based on the ups and downs of diesel prices.

### Potential Funding Sources – Federal

The Federal Transit Administration (FTA) offers several grant programs that support the transition to cleaner and more sustainable transportation, including the Low or No Emission (Low-No) Grant Program. This program specifically focuses on funding the purchase or lease of low or zero-emission buses, including battery electric buses. Additional FTA grant programs are listed below:

- State of Good Repairs Grant
- Bus and Bus Facilities Discretionary Grant
- Urbanized Area Formula program
- State of Good Repair Grants
- Capital Investment Grants
- Low-or No-Emission Vehicle Grant
- Metropolitan & Statewide Planning and Non-Metropolitan Transportation Planning
- Flexible Funding Program – Surface Transportation Block Grant Program

The United States Department of Transportation (USDOT) launched the Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants program to fund investments in transportation infrastructure, including transit. The program helps to ensure that recipients have the technical assistance and support necessary to successfully complete their projects throughout the development and implementation process.

### Potential Funding Sources – State

The California Energy Commission (CEC) offers grants and incentives to support clean transportation, including electric buses. Programs like the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) provide funding for projects that advance alternative fuels and vehicle technologies.

The California Air Resources Board (CARB) administers multiple grant programs to help reduce air pollution and greenhouse gas emissions. The Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) provides vouchers to reduce the upfront costs of zero-emission buses. The Clean Mobility Options Voucher Pilot Program is another CARB initiative that supports zero-emission transit projects. CARB programs with potential to support NCC’s transition to BEBs are listed below:

- Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)
- State Volkswagen Settlement Mitigation
- Cap-and-Trade Funding
- Carl Moyer Memorial Air Quality Standards Attainment Program
- Low Carbon Fuel Standard (LCFS)

The California Transit and Intercity Rail Capital Program (TIRCP) is a state-funded competitive grant program that supports transformative capital projects for transit and intercity rail. It prioritizes projects that demonstrate reduced greenhouse gas emissions and improved mobility. Transitioning to battery electric buses aligns with TIRCP's goals and could be a viable funding option.

The Low Carbon Transit Operations Program (LCTOP) provides operating and capital assistance for transit agencies to reduce greenhouse gas emissions and improve mobility. It supports a range of projects, including the purchase or lease of zero-emission buses.

As mentioned above, NCC intends to leverage the STA program offered by Caltrans. However, additional programs offered by Caltrans are also being considered by the County:

- Low Carbon Transit Operations Program (LCTOP)
- Transportation Development Credits
- New Employment Credit
- Transportation Development Act



# RESOLUTION No. 23-416

## OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NEVADA

### RESOLUTION APPROVING THE COUNTY OF NEVADA TRANSIT SERVICES/NEVADA COUNTY CONNECTS ZERO EMISSION BUS ROLLOUT PLAN

WHEREAS, the California Air Resources Board (CARB) requires that all public transit agencies transition to zero emission transit fleet by 2040; and

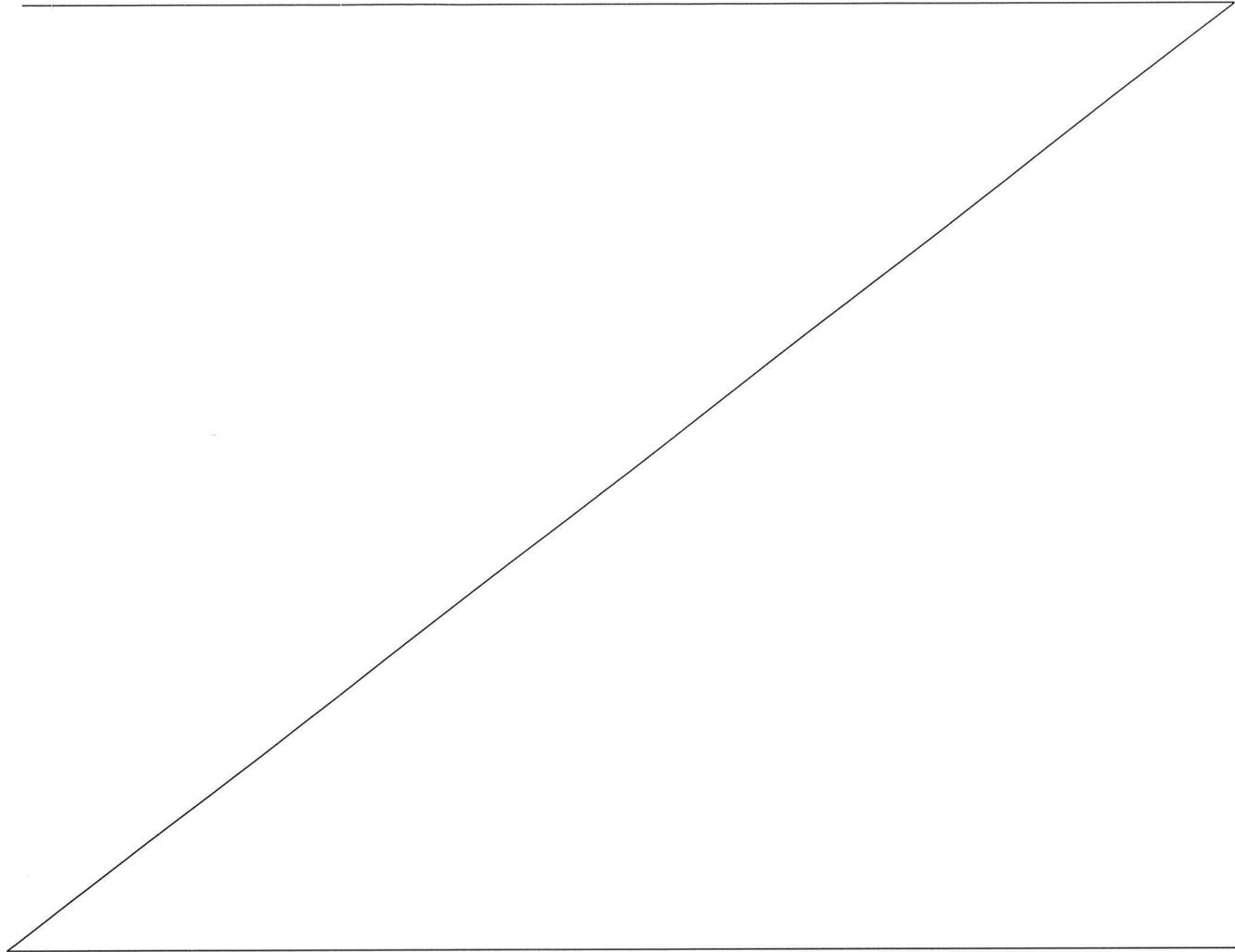
WHEREAS, the Innovative Clean Transit (ICT) Regulation applies to any provider of public transportation utilizing a fleet of vehicles with a gross vehicle weight rating (GVWR) of 14,000 or greater; and

WHEREAS, the ICT requires that each public transit agency develop and submit a Zero Emission Bus Rollout Plan to CARB; and

WHEREAS, the County of Nevada Transit Services Division (aka Nevada County Connects) has now completed its Zero Emission Bus Rollout Plan, which must be approved by the Board.

NOW, THEREFORE, BE IT HEREBY RESOLVED that the Nevada County Board of Supervisors:

1. Approves the County of Nevada Transit Services Zero Emission Bus Rollout Plan.
2. Authorizes the Director of Public Works or designee to execute all required documents of the Zero Emission Bus Rollout Plan and any future amendments.



PASSED AND ADOPTED by the Board of Supervisors of the County of Nevada at a regular meeting of said Board, held on the 8th day of August, 2023, by the following vote of said Board:

- Ayes: Supervisors Heidi Hall, Edward C. Scofield, Lisa Swarthout, Susan Hoek and Hardy Bullock.
- Noes: None.
- Absent: None.
- Abstain: None.

ATTEST:

JULIE PATTERSON HUNTER  
Clerk of the Board of Supervisors

By: 

  
Edward C. Scofield, Chair



**COUNTY OF NEVADA  
COMMUNITY DEVELOPMENT AGENCY  
DEPARTMENT OF PUBLIC WORKS  
TRANSIT SERVICES DIVISION**  
950 MAIDU AVENUE, NEVADA CITY, CA 95959-8617  
(530) 477-0103 Toll Free (888) 660-7433 FAX (530) 477-7847  
<http://new.nevadacounty.com>

Heba El-Guindy,  
Director of Public Works

Robin Van Valkenburgh, Transit Services Manager

**TRANSIT SERVICES COMMISSION  
Information Item**

**MEETING DATE:** January 24, 2024

**TO:** Transit Services Commission

**FROM:** Robin Van Valkenburgh, Transit Services Manager

**SUBJECT:** **Manager's Report**

**RECOMMENDATION:** Accept the report.

**Low Carbon Transit Operations Program (LCTOP) Project Updates**

**12 Days of Holiday Cheer**

We were pleased to offer the 12 Days of Holiday Cheer December 16 – 31 again this year. This event is supported by a Low Carbon Transit Operations Program (LCTOP) and provides free fare service to Nevada County Connects and Nevada County Now passengers. For this year's event we provided a total of 4,424 passenger boardings over the twelve service days on Nevada County Connects (fixed route bus) as well as 2,769 passenger boardings on Nevada County Now paratransit service (for the month of December). These are 28 percent (Connects) and 84 percent (Now) increases respectively over the prior year.

**Sierra College Students Ride Free**

In August 2022, Nevada County Connects partnered with Sierra College, Nevada County Transportation Commission (NCTC), Placer County Transportation Planning Agency (PCTPA), Placer County Transit, Auburn Transit and Roseville Transit to offer free fare service on the respective transit systems to any Sierra College (and Ghidotti Early College High School) student with a valid student ID. The program has significant support from the participating entities and has been well received by students. In the FY22-23 service year NCC provided 1,866 student trips.

For the most recent 3 months (Oct – Dec 2023) we provided 787 student trips, and have provided a total of 1,448 trips year-to-date for FY23-24. This is a 75 percent increase over the prior year!

### **Nevada City – Grass Valley Victorian Christmas E-bus Shuttle**

For the first time ever, NCC partnered with Nevada City Chamber of Commerce to support Victorian Christmas on Wednesdays by providing a free e-bus shuttle from the Tinloy Transit Center in downtown Grass Valley to the Broad St. bridge in Nevada City. This was a fantastic partnership and we had a great response from staff, as well as the public, surrounding the service. It didn't go off entirely smoothly as the first Wednesday we had torrential rain and some e-bus issues, but the last Wednesday was great and we transported 156 people between Grass Valley and Nevada City for the event.

Staff has spoken with Nevada City Chamber staff and have already agreed to operate the shuttle again in the coming years. Our supervisor, Sandy, who drive the shuttle says she is looking forward to dressing the Victorian par next year while driving the shuttle. Should be fun.

This is great news and very nice to see as we continue to reestablish ridership post-COVID.

### **FTA 5310 Paratransit Vehicle Purchase**

To date we have received four of the five FTA Section 5310 funded paratransit vehicles, four Ford V350 Shift n' Step ADA Accessible paratransit vans. The remaining vehicle, a Ford E450 12 passenger Glaval Cutaway Bus, has been ordered through A-Z Bus Sales. This vehicle was originally ordered April 26, 2021, but has subsequently been affected by production delays within Ford, supply chain issues due to COVID-19 and significant cost increases, leading to a current expected delivery date of April 2024.

This will be the 9<sup>th</sup> paratransit vehicle which the County has replaced on route to fully replacing all 12 paratransit fleet vehicles. This replacement process is consistent with the previously approved 2013 Paratransit Fleet Replacement Plan.

### **FTA 511 Coronavirus Relief and Response Supplemental Appropriations Act (CRRSAA) Paratransit Vehicle Purchase**

This project is the final procurement of the 2013 Paratransit Replacement Plan. At this time we have a PO which is being issued this week for the purchase of two Starcraft Ford E450 12 passenger cutaway buses (the procurement was approved at the January 9, 2024 Board of Supervisors meeting) through Model 1 bus sales. The purchase of these vehicles puts us at 11 of 12 vehicles procured, with the final vehicle likely to be procured this spring based on availability.

Please contact me if you have any questions prior to the January 24, 2024, TSC Meeting.

# 12 Days of Holiday Celebrations December Free Fare Days

## 2023

	Sat	Mon	Tue	Wed	Thu	Fri	Sat	Tues	Wed	Thu	Fri	Sat		
Route #	12/16/23	12/18/23	12/19/23	12/20/23	12/21/23	12/22/23	12/23/23	12/26/23	12/27/23	12/28/23	12/29/23	12/30/23	Route Boarding Totals	Grant Amount per Route
1	122	113	118	128	155	142	101	135	97	130	159	71	1,471	\$2,206.50
3/2	65	64	40	65	91	56	44	53	56	86	66	46	732	\$1,098.00
4	78	116	91	125	148	163	96	105	127	136	156	98	1,439	\$2,158.50
5		24	22	16	31	28		23	29	35	23		231	\$627.00
6	21	38	30	39	45	48	18	29	26	43	47	6	390	\$1,074.00
7		9	13	10	12	13		16	11	23	11		118	\$309.00
1/6		0	12	13	18								43	\$64.50
<b>Boarding Totals by Day</b>	<b>286</b>	<b>364</b>	<b>326</b>	<b>396</b>	<b>500</b>	<b>450</b>	<b>259</b>	<b>361</b>	<b>346</b>	<b>453</b>	<b>462</b>	<b>221</b>	<b>4,424</b>	<b>\$7,537.50</b>
<i>Fares</i>	<i>\$453.00</i>	<i>\$630.00</i>	<i>\$561.00</i>	<i>\$675.00</i>	<i>\$862.50</i>	<i>\$780.00</i>	<i>\$415.50</i>	<i>\$625.50</i>	<i>\$607.50</i>	<i>\$796.50</i>	<i>\$799.50</i>	<i>\$331.50</i>	<i>\$7,537.50</i>	<i>Check</i>
Rt 1/6 did not run 12/22--12/30 due to the winter school break														\$0.00
Rt 5, 5X and 7 do not run on Saturdays														

Boardings	
2022/23	2023/24
11 Service Days	12 Service Days

Route #	Route Totals	Route Totals	Difference
1	1,230	1,471	241
3/2	722	732	10
4	1,060	1,439	379
5	240	231	(9)
6	291	390	99
7	90	118	28
1/6	0	43	43
<b>Totals</b>	<b>3,633</b>	<b>4,424</b>	<b>791</b>

FY22/23: There were not enough drivers for Dec 24th, so  
Transt closed for that day.

Total Fares	
FY22/23	FY23/24
\$6,081.00	\$7,537.50

Fare Diff: \$1,456.50

Rt 5 and 7 do not run on Saturdays

Rt 1/6 doesn't not run Saturdays or school breaks

## Sierra College

Route #	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	Apr'24	May'24	Jun'24	Route Totals
1/6 - School Tripper	0	0	0	0	1	0							1
1 - Grass Valley/Nevada City	18	35	60	49	79	26							267
3/2 - Grass Valley/Ridge Rd	28	30	31	22	27	8							146
4 - Grass Valley/Sierra College/Brunswick	29	98	148	141	139	87							642
5 - Auburn	14	36	45	50	37	17							199
6 - Penn Valley/Lake Wildwood	35	30	23	42	40	20							190
7 - North San Juan	0	1	0	0	1	1							3
<b>Totals</b>	<b>124</b>	<b>230</b>	<b>307</b>	<b>304</b>	<b>324</b>	<b>159</b>	-	-	-	-	-	-	<b>1,448</b>
<b>Total Overall Ridership</b>	<b>9,370</b>	<b>13,730</b>	<b>10,191</b>	<b>11,090</b>	<b>9,658</b>	<b>9,896</b>							
<b>Total Ridership Route 4 (serving Sierra College)</b>	<b>2,811</b>	<b>3,460</b>	<b>2,936</b>	<b>3,172</b>	<b>2,996</b>	<b>3,050</b>							
Period totals			661			787			-			-	



**COUNTY OF NEVADA**  
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Heba El-Guindy,  
 Director of Public Works

Robin Van Valkenburgh, Transit Services Manager

**TRANSIT SERVICES COMMISSION**  
**Information Item**

**MEETING DATE:** January 24, 2024

**TO:** Transit Services Commission

**FROM:** Robin Van Valkenburgh, Transit Services Manager

**SUBJECT:** Nevada County Connects Operations Report for Oct- Dec 2023

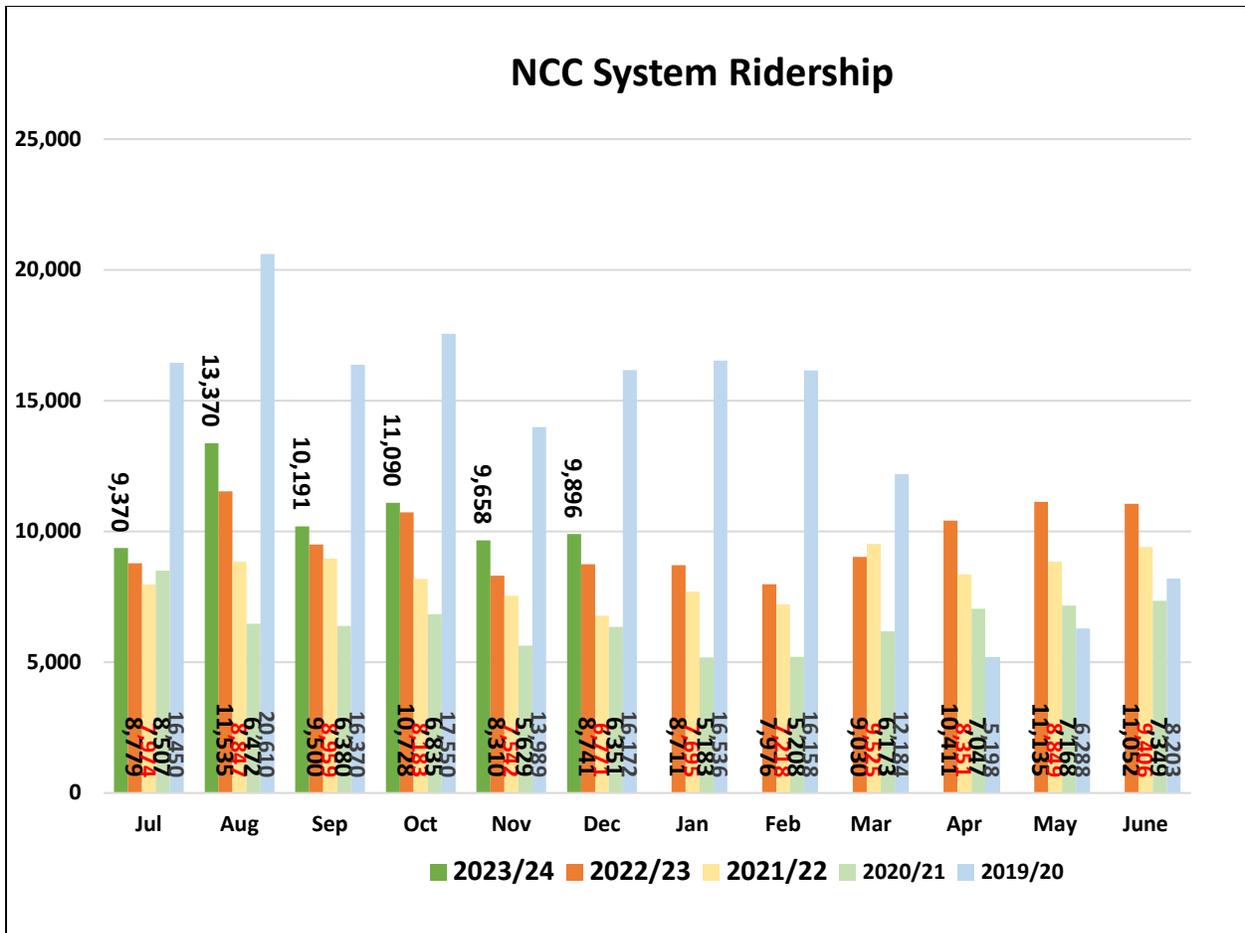
**RECOMMENDATION:** Accept the report.

**BACKGROUND:** Nevada County Connects (NCC) operates fixed route bus service Monday through Saturday, serving the communities of Grass Valley, Nevada City, Penn Valley, Rough and Ready, Lake Wildwood, Alta Sierra and Lake of the Pines. NCC also provides regional bus service to Auburn Monday through Friday, providing connections to Placer County Transit, Auburn Transit and Amtrak. The following performance metrics are captured and reported on a monthly basis.

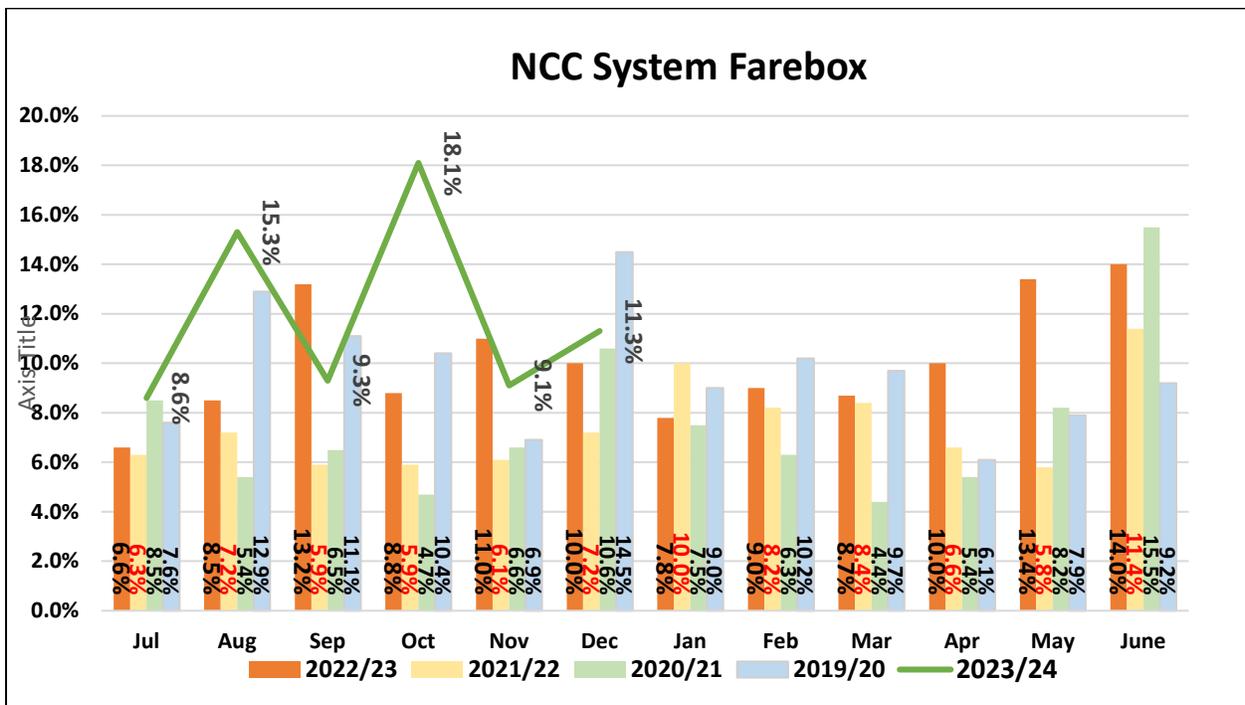
**System Performance Snapshot**

<b>Current</b>	<b>October</b>	<b>November</b>	<b>December</b>	<b>YTD</b>	<b>% Change from PY</b>
<b>Ridership</b>	11,090	9,658	9,896	63,578	10%
<b>Farebox</b>	18.1%	9.1%	11.3%	12.0%	24%
<b>On-time Performance</b>	72.6%	72.3%	73.3%	N/A	
<b>Fare Revenue</b>	\$44,384	\$20,379	\$28,047	\$159,887	29%

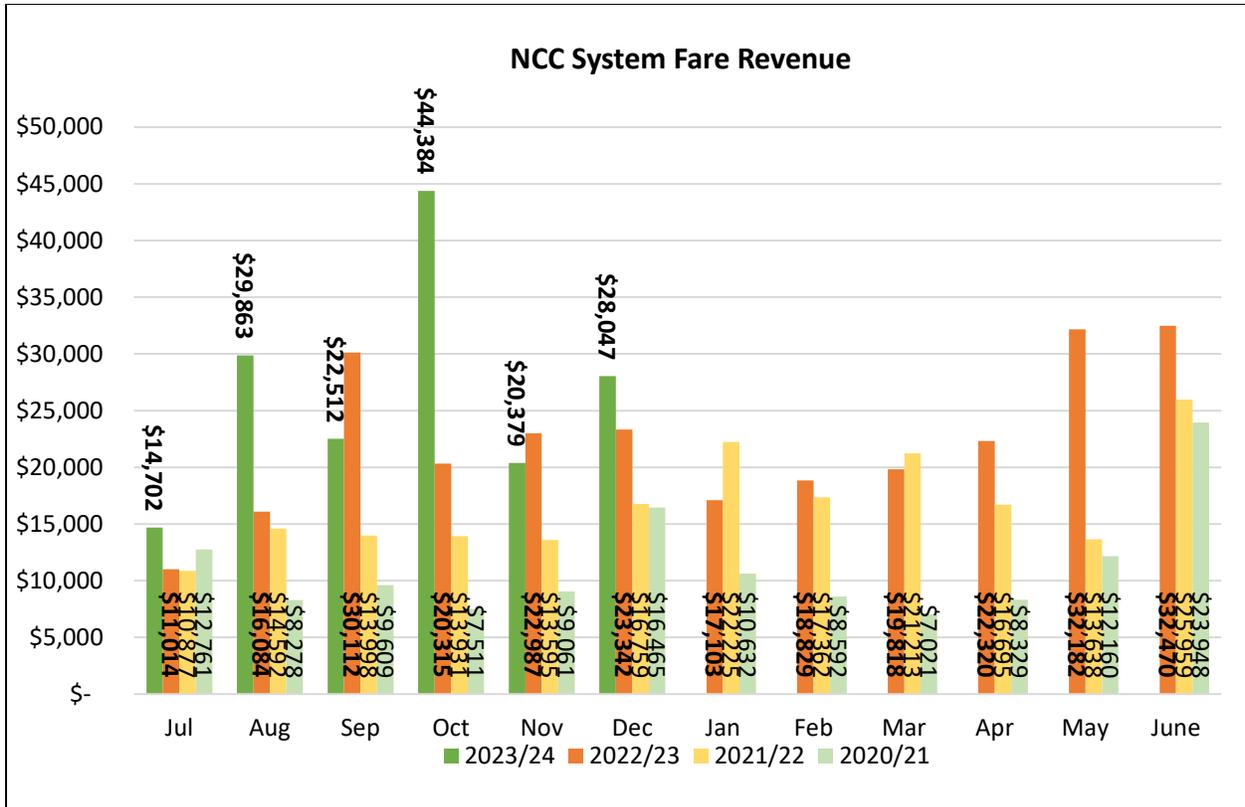
## Ridership



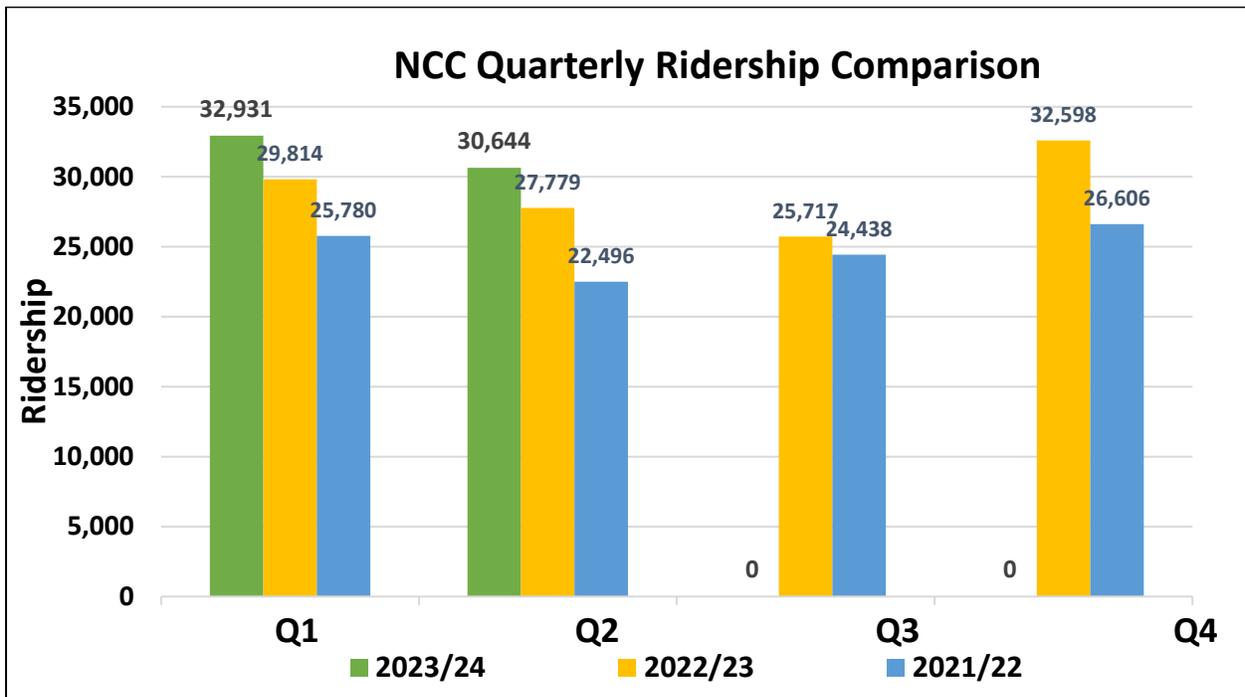
## Farebox



## NCC Fare Revenue



## NCC Quarterly Ridership



Please contact me if you have any questions prior to the January 24, 2024 TSC Meeting.  
TT:RVV

**NEVADA COUNTY CONNECTS  
MONTHLY OPERATIONS REPORT - 2023-24**

**November 2023**

Monday - Saturday  
23 Service Days

<b>PASSENGER BOARDINGS</b>	<b>Route 1</b>	<b>Route 3.2/AS*</b>	<b>Route 4</b>	<b>Route 5**</b>	<b>Route 6</b>	<b>Route 7</b>	<b>Tripper</b>		<b>Total</b>
Regular Cash	643	282	484	286	188	96	0		1,979
Discount Cash	510	186	309	133	98	50	240		1,526
Free (Under 6) and Sierra College	156	196	274	43	88	1	0		758
Daily Pass	151	86	221	26	44	41	0		569
Monthly Pass	1,490	595	1,410	133	325	106	3		4,062
Transfer	105	98	184	49	31	2	0		469
One Ride Tickets	117	24	114	15	12	12	1		295
<b>Total Boardings</b>	<b>3,172</b>	<b>1,467</b>	<b>2,996</b>	<b>685</b>	<b>786</b>	<b>308</b>	<b>244</b>		<b>9,658</b>
	33%	15%	31%	7%	8%	3%	3%		100%
<b>OPERATING DATA</b>									
Revenue Vehicle Hours (RVH)	304	291	299	228	142	114	38		1,416
Total Vehicle Hours	317	303	311	247	154	133	45		1,509
Revenue Vehicle Miles (RVM)	3,802	4,697	4,028	6,608	2,980	2,964	480		25,559
Total Vehicle Miles	4,078	4,871	4,211	6,912	3,164	3,116	750		27,101
Marginal Operating Cost - RVH	\$27,105	\$25,946	\$26,681	\$20,328	\$12,683	\$10,164	\$3,344	\$0	126,250.6
Marginal Operating Cost - RVM	\$8,782	\$10,850	\$9,305	\$15,265	\$6,884	\$6,847	\$1,108	\$0	59,040.4
Marginal Operating Cost	\$35,886	\$36,796	\$35,986	\$28,682	\$19,567	\$17,011	\$4,451		178,379.8
Total Operating Cost (includes fixed costs)	\$44,813	\$45,080	\$44,479	\$36,678	\$24,503	\$22,071	\$6,764	\$0	224,387.7
Fare Revenue --ACTUALS	\$6,438	\$2,926	\$5,796	\$1,891	\$1,904	\$861.58	\$563.29		\$20,379
Net Operating Subsidy	\$38,376	\$42,154	\$38,683	\$34,787	\$22,599	\$21,210	\$6,201		204,008.7
Total Institutional Pass Sales								\$6,203	
Total LCTOP Subsidized Passes								\$7,920	
Total M. U. B. Sales								\$1,036	
<b>PERFORMANCE INDICATORS</b>									
Marginal Operating Cost/VSH	\$118.05	\$126.45	\$120.25	\$125.80	\$137.55	\$149.22	\$118.70	\$0.00	\$125.97
Marginal Operating Cost/VSM	\$9.44	\$7.83	\$8.93	\$4.34	\$6.57	\$5.74	\$9.28	\$0.00	\$6.98
Marginal Subsidy/Passenger	\$12.10	\$28.73	\$12.91	\$50.78	\$28.75	\$68.86	\$25.41	\$0.00	\$21.12
Revenue/Passenger	\$2.03	\$1.99	\$1.93	\$2.76	\$2.42	\$2.80	\$2.31	\$0.00	\$2.11
Passengers/VSH	10.43	5.04	10.01	3.00	5.53	2.70	6.51	0.00	6.82
Passengers/VSM	0.83	0.31	0.74	0.10	0.26	0.10	0.51	0.00	0.38
<b>Total Allocated Farebox Ratio</b>	<b>14.4%</b>	<b>6.5%</b>	<b>13.0%</b>	<b>5.2%</b>	<b>7.8%</b>	<b>3.9%</b>	<b>8.3%</b>	<b>0.0%</b>	<b>9.1%</b>

\*Route A/S (Alta Sierra) runs only on Saturdays & COVID-19 Schedule

\*\*\*Route 5 allocated costs less revenue from Placer County contract

\*\*Routes 5 & 7 do not run on Saturdays

**NEVADA COUNTY CONNECTS**

**MONTHLY OPERATIONS REPORT  
SYSTEMWIDE DATA**

**November 2023**

**Monday - Saturday**

	NOV 2023	NOV 2022	% CHANGE	YTD FY2023-24	YTD FY 2022-23	% CHANGE
<b>PASSENGER BOARDINGS</b>	23 service days	23 service days		126 Service Days	127 Service Days	
Regular Cash	1,979	2,524	-21.59%	18,014	16,728	7.69%
Discount Cash	1,526	958	59.29%	6,757	5,549	21.77%
Free (Under 6)	758	513	47.76%	3,556	2,955	20.34%
Daily Pass	569	368	54.62%	2,812	2,207	27.41%
Monthly Pass	4,062	3,286	23.62%	18,564	16,901	9.84%
Transfer	469	418	12.20%	2,610	2,647	-1.40%
One Ride Tickets	295	243	21.40%	1,726	1,050	64.38%
<b>Total Boardings</b>	<b>9,658</b>	<b>8,310</b>	<b>16.22%</b>	<b>54,039</b>	<b>48,037</b>	<b>12.49%</b>
<b>OPERATING DATA</b>						
Revenue Vehicle Hours (RVH)	1,416	1,421	-0.35%	6,864	7,066	-2.86%
Total Vehicle Hours	1,509	1,515	-0.36%	7,250	7,459	-2.80%
Revenue Vehicle Miles (RVM)	25,559	25,630	-0.28%	124,165	126,318	-1.70%
Total Vehicle Miles	27,101	27,208	-0.39%	130,445	134,279	-2.86%
Marginal Operating Cost - RVH	\$126,251	\$117,204	7.72%	\$611,909	\$582,845	4.99%
Marginal Operating Cost - RVM	\$59,040	\$50,747	16.34%	\$283,327	\$250,049	13.31%
<b>Marginal Operating Cost</b>	<b>\$178,380</b>	<b>\$161,040</b>	<b>10.77%</b>	<b>\$874,502</b>	<b>\$812,160</b>	<b>7.68%</b>
Total Operating Cost (includes fixed	\$224,388	\$208,346	7.70%	\$1,077,410	\$1,026,443	4.97%
Fare Revenue --ACTUALS	\$20,379	\$22,897	-11.00%	\$131,840	\$100,422	31.29%
<b>Net Marginal Operating Subsidy</b>	<b>\$209,544</b>	<b>\$185,449</b>	<b>12.99%</b>	<b>\$955,043</b>	<b>\$927,243</b>	<b>3.00%</b>
<b>PERFORMANCE INDICATORS</b>						
Marginal Operating Cost/RVH	\$125.97	\$113.33	11.16%	\$127.40	\$114.94	10.85%
Marginal Operating Cost/RVM	\$6.98	\$6.28	11.07%	\$7.04	\$6.43	9.54%
Total Subsidy/Passenger	\$21.70	\$22.32	-2.78%	\$17.67	\$19.30	-8.44%
Revenue/Passenger	\$2.11	\$2.76	-23.42%	\$2.44	\$2.09	16.70%
Passengers/VSH	6.82	5.85	16.63%	7.87	6.80	15.81%
Passengers/VSM	0.38	0.32	16.54%	0.44	0.38	14.45%
<b>Farebox Recovery Ratio</b>	<b>9.1%</b>	<b>6.1%</b>	<b>49.85%</b>	<b>12.2%</b>	<b>9.8%</b>	<b>25.08%</b>

**NCC & NCN COMBINED SERVICES**  
**MONTHLY OPERATIONS REPORT - 2023-24**

**NOVEMBER 2023**

Monday - Saturday

23 Service Days

	Route 1	Route 3.2/AS*	Route 4	Route 5**	Route 6	Route 7	Trippler	Paratransit	Total
<b>PASSENGER BOARDINGS</b>									
Regular Cash - Includes LCTOP Free Fares	643	282	484	286	188	96	0	1,557	3,536
Discount Cash	510	186	309	133	98	50	240		1,526
Free (Under 6)	156	196	274	43	88	1	0		758
Daily Pass	151	86	221	26	44	41	0		569
Monthly Pass	1,490	595	1,410	133	325	106	3		4,062
Transfer	105	98	184	49	31	2	0		469
One Ride Tickets	117	24	114	15	12	12	1		295
<b>Total Boardings</b>	<b>3,172</b>	<b>1,467</b>	<b>2,996</b>	<b>685</b>	<b>786</b>	<b>308</b>	<b>244</b>	<b>1,557</b>	<b>11,215</b>
<b>OPERATING DATA</b>									
Revenue Vehicle Hours (RVH)	304	291	299	228	142	114	38	699	2,115
Total Vehicle Hours	317	303	311	247	154	133	45	845	2,353
Revenue Vehicle Miles (RVM)	3,802	4,697	4,028	6,608	2,980	2,964	480	8,189	33,748
Total Vehicle Miles	4,078	4,871	4,211	6,912	3,164	3,116	750	9,262	36,363
Marginal Operating Cost - RVH	\$27,105	\$25,946	\$26,681	\$20,328	\$12,683	\$10,164	\$3,344		\$126,251
Marginal Operating Cost - RVM	\$8,782	\$10,850	\$9,305	\$15,265	\$6,884	\$6,847	\$1,108		\$59,040
Marginal Operating Cost	\$35,886	\$36,796	\$35,986	\$28,682	\$19,567	\$17,011	\$4,451		\$178,380
Total Operating Cost (includes fixed costs)	\$44,813	\$45,080	\$44,479	\$36,678	\$24,503	\$22,071	\$6,764	\$111,036	\$335,424
Fare Revenue - Includes LCTOP Free Fares	\$6,423	\$2,926	\$5,796	\$1,891	\$1,904	\$862	\$563	\$5,078.00	\$25,443
<b>Total Institutional &amp; MUB Pass Sales</b>									
<b>Total LCTOP Subsidized Passes</b>									
Net Operating Subsidy	\$38,390	\$42,154	\$38,683	\$34,787	\$22,599	\$21,209	\$6,201	\$105,958	\$309,981
<b>PERFORMANCE INDICATORS</b>									
Marginal Operating Cost/VSH	\$89.16	\$89.16	\$89.16	\$89.16	\$89.16	\$89.16	\$89.16	0	\$59.68
Marginal Operating Cost/VSM	\$2.31	\$2.31	\$2.31	\$2.31	\$2.31	\$2.31	\$2.31	0	\$1.75
Marginal Subsidy/Passenger	\$12.10	\$28.73	\$12.91	\$50.78	\$28.75	\$68.86	\$25.41	\$68.05	\$27.64
Revenue/Passenger	\$2.02	\$1.99	\$1.93	\$2.76	\$2.42	\$2.80	\$2.31	\$3.26	\$2.27
Passengers/VSH	10.43	5.04	10.01	3.00	5.53	2.70	6.51	2.23	5.30
Passengers/VSM	0.83	0.31	0.74	0.10	0.26	0.10	0.51	0.19	0.33
<b>Total Allocated Farebox Ratio</b>	<b>14.3%</b>	<b>6.5%</b>	<b>13.0%</b>	<b>5.2%</b>	<b>7.8%</b>	<b>3.9%</b>	<b>8.3%</b>	<b>4.6%</b>	<b>7.6%</b>

\*Route A/S (Alta Sierra) runs only on Saturdays & COVID-19 Schedule

\*\*Routes 5, 7 & Trippler do not run on Saturday

\*\*\*Route 5 allocated costs less revenue from Placer County contract

**NEVADA COUNTY CONNECTS  
MONTHLY OPERATIONS REPORT - 2023-24**

**December 2023**

Monday - Saturday

25 Service Days

<b>PASSENGER BOARDINGS</b>	<b>Route 1</b>	<b>Route 3.2/AS*</b>	<b>Route 4</b>	<b>Route 5**</b>	<b>Route 6</b>	<b>Route 7</b>	<b>Trippler</b>		<b>Total</b>
Regular Cash (includes Free Fares)	1,916	899	1,743	405	511	173	43		5,690
Discount Cash	312	113	160	62	47	36	153		883
Free (Under 6) and Sierra College	76	73	168	31	55	3	0		406
Daily Pass	65	40	93	8	3	20	0		229
Monthly Pass	840	291	707	74	199	60	1		2,172
Transfer	69	75	107	34	32	3	0		320
One Ride Tickets	79	21	72	20	3	1	0		196
<b>Total Boardings</b>	<b>3,357</b>	<b>1,512</b>	<b>3,050</b>	<b>634</b>	<b>850</b>	<b>296</b>	<b>197</b>		<b>9,896</b>
	34%	15%	31%	6%	9%	3%	2%		100%
<b>OPERATING DATA</b>									
Revenue Vehicle Hours (RVH)	328	315	323	240	153	120	38		1,515
Total Vehicle Hours	341	328	335	260	165	140	45		1,614
Revenue Vehicle Miles (RVM)	4,104	5,058	4,341	6,956	3,200	3,120	514		27,293
Total Vehicle Miles	4,404	5,252	4,540	7,276	3,400	3,280	784		28,936
Marginal Operating Cost - RVH	\$29,200	\$28,085	\$28,754	\$21,398	\$13,597	\$10,699	\$3,344		135,077.4
Marginal Operating Cost - RVM	\$9,480	\$11,684	\$10,028	\$16,068	\$7,392	\$7,207	\$1,186		63,045.9
Marginal Operating Cost	\$38,680	\$39,769	\$38,782	\$30,556	\$20,989	\$17,906	\$4,530		191,212.1
Total Operating Cost (includes fixed costs)	\$48,335	\$48,756	\$47,950	\$45,883	\$26,306	\$23,233	\$6,842		247,306.9
Fare Revenue --ACTUALS	\$9,084	\$4,105	\$8,144	\$2,224	\$2,930	\$1,035	\$525		\$28,047
Net Operating Subsidy	\$39,252	\$44,651	\$39,806	\$43,660	\$23,376	\$22,198	\$6,317		219,260.0
Total Institutional Pass Sales								\$10,039	219,260.0
Total LCTOP Subsidized Passes								\$6,480	
Total M. U. B. Sales								\$833	
<b>PERFORMANCE INDICATORS</b>									
Marginal Operating Cost/VSH	\$118.11	\$126.25	\$120.25	\$127.31	\$137.63	\$149.22	\$120.80	\$0.00	\$126.21
Marginal Operating Cost/VSM	\$9.42	\$7.86	\$8.93	\$4.39	\$6.56	\$5.74	\$8.82	\$0.00	\$7.01
Marginal Subsidy/Passenger	\$11.69	\$29.53	\$13.05	\$68.86	\$27.50	\$74.99	\$32.07	\$0.00	\$22.16
Revenue/Passenger	\$2.71	\$2.71	\$2.67	\$3.51	\$3.45	\$3.50	\$2.67	\$0.00	\$2.83
Passengers/VSH	10.25	4.80	9.46	2.64	5.57	2.47	5.25	0.00	6.53
Passengers/VSM	0.82	0.30	0.70	0.09	0.27	0.09	0.38	0.00	0.36
<b>Total Allocated Farebox Ratio</b>	<b>18.8%</b>	<b>8.4%</b>	<b>17.0%</b>	<b>4.8%</b>	<b>11.1%</b>	<b>4.5%</b>	<b>7.7%</b>	<b>0.0%</b>	<b>11.3%</b>

\*Route A/S (Alta Sierra) runs only on Saturdays & COVID-19 Schedule  
Transit Services Commission

\*\*\*Route 5 allocated costs less revenue from Placer County contract  
1/19/2024

\*\*Routes 5 & 7 do not run on Saturdays  
35

**NEVADA COUNTY CONNECTS**

**MONTHLY OPERATIONS REPORT  
SYSTEMWIDE DATA**

**December 2023**

**Monday - Saturday**

	DEC 2023	DEC 2022	% CHANGE	YTD FY2023-24	YTD FY 2022-23	% CHANGE
<b>PASSENGER BOARDINGS</b>	25 service days	25 service days		151 service days	152 service days	
Regular Cash	5,690	4,682	21.53%	23,704	21,410	10.71%
Discount Cash	883	602	46.68%	7,640	6,151	24.21%
Free (Under 6)	406	382	6.28%	3,962	3,337	18.73%
Daily Pass	229	331	-30.82%	3,041	2,538	19.82%
Monthly Pass	2,172	2,291	-5.19%	20,736	19,192	8.05%
Transfer	320	295	8.47%	2,930	2,942	-0.41%
One Ride Tickets	196	158	24.05%	1,922	1,208	59.11%
<b>Total Boardings</b>	<b>9,896</b>	<b>8,741</b>	<b>13%</b>	<b>63,935</b>	<b>56,778</b>	<b>13%</b>
<b>OPERATING DATA</b>						
Revenue Vehicle Hours (RVH)	1,515	1,540	-1.59%	8,379	8,606	-2.63%
Total Vehicle Hours	1,614	1,639	-1.50%	8,864	9,097	-2.57%
Revenue Vehicle Miles (RVM)	27,293	27,916	-2.23%	151,458	154,234	-1.80%
Total Vehicle Miles	28,936	29,521	-1.98%	159,381	163,800	-2.70%
Marginal Operating Cost - RVH	\$135,077	\$126,978	6.38%	\$746,987	\$709,822	5.24%
Marginal Operating Cost - RVM	\$63,046	\$55,274	14.06%	\$346,373	\$305,323	13.44%
<b>Marginal Operating Cost</b>	<b>\$191,212</b>	<b>\$175,341</b>	<b>9.05%</b>	<b>\$1,065,714</b>	<b>\$987,501</b>	<b>7.92%</b>
Total Operating Cost (includes fixed costs)	\$247,307	\$233,049	6.12%	\$1,324,717	\$1,259,492	5.18%
Fare Revenue --ACTUALS	\$28,047	\$23,342	20.16%	\$159,887	\$123,764	29.19%
<b>Net Marginal Operating Subsidy</b>	<b>\$219,260</b>	<b>\$209,707</b>	<b>4.56%</b>	<b>\$1,174,303</b>	<b>\$1,136,950</b>	<b>3.29%</b>
<b>PERFORMANCE INDICATORS</b>						
Marginal Operating Cost/RVH	\$126.21	\$113.89	10.82%	\$127.19	\$114.75	10.84%
Marginal Operating Cost/RVM	\$7.01	\$6.28	11.54%	\$7.04	\$6.40	9.90%
Total Subsidy/Passenger	\$22.16	\$23.99	-7.65%	\$18.37	\$20.02	-8.28%
Revenue/Passenger	\$2.83	\$2.67	6.13%	\$2.50	\$2.18	14.73%
Passengers/VSH	6.53	5.68	15.04%	7.63	6.60	15.65%
Passengers/VSM	0.36	0.31	15.80%	0.42	0.37	14.67%
<b>Farebox Recovery Ratio</b>	<b>11.3%</b>	<b>10.0%</b>	<b>13.23%</b>	<b>12.1%</b>	<b>9.8%</b>	<b>22.83%</b>

**NCC & NCN COMBINED SERVICES**  
**MONTHLY OPERATIONS REPORT - 2023-24**

**DECEMBER 2023**

Monday - Saturday  
 25 Service Days

	Route 1	Route 3.2/AS*	Route 4	Route 5**	Route 6	Route 7	Tripper	Paratransit		Total
<b>PASSENGER BOARDINGS</b>										
Regular Cash	1,916	899	1,743	405	511	173	43	1,651		7,341
Discount Cash	312	113	160	62	47	36	153			883
Free (Under 6)	76	73	168	31	55	3	0			406
Daily Pass	65	40	93	8	3	20	0			229
Monthly Pass	840	291	707	74	199	60	1			2,172
Transfer	69	75	107	34	32	3	0			320
One Ride Tickets	79	21	72	20	3	1	0			196
<b>Total Boardings</b>	<b>3,357</b>	<b>1,512</b>	<b>3,050</b>	<b>634</b>	<b>850</b>	<b>296</b>	<b>197</b>	<b>1,651</b>		<b>11,547</b>
<b>OPERATING DATA</b>										
Revenue Vehicle Hours (RVH)	328	315	323	240	153	120	38	886		2,401
Total Vehicle Hours	341	328	335	260	165	140	45	735		2,349
Revenue Vehicle Miles (RVM)	4,104	5,058	4,341	6,956	3,200	3,120	514	8,640		35,933
Total Vehicle Miles	4,404	5,252	4,540	7,276	3,400	3,280	784	9,674		38,610
Marginal Operating Cost - RVH	\$29,200	\$28,085	\$28,754	\$21,398	\$13,597	\$10,699	\$3,344			\$135,077
Marginal Operating Cost - RVM	\$9,480	\$11,684	\$10,028	\$16,068	\$7,392	\$7,207	\$1,186			\$63,046
Marginal Operating Cost	\$38,680	\$39,769	\$38,782	\$30,556	\$20,989	\$17,906	\$4,530			\$191,212
Total Operating Cost (includes fixed costs)	\$48,335	\$48,756	\$47,950	\$45,883	\$26,306	\$23,233	\$6,842	\$112,855		\$360,162
Fare Revenue - ACTUALS	\$9,084	\$4,105	\$8,144	\$2,224	\$2,930	\$1,035	\$525	\$2,834.00		\$30,921
<b>Total Institutional &amp; MUB Pass Sales</b>										<b>\$10,872</b>
<b>Total LCTOP Subsidized Passes</b>										<b>\$6,480</b>
Net Operating Subsidy	\$39,251	\$44,651	\$39,806	\$43,659	\$23,376	\$22,198	\$6,317	\$110,021		\$329,281
<b>PERFORMANCE INDICATORS</b>										
Marginal Operating Cost/VSH	\$89.16	\$89.16	\$89.16	\$89.16	\$89.16	\$89.16	\$89.16	\$0.00		\$56.26
Marginal Operating Cost/VSM	\$2.31	\$2.31	\$2.31	\$2.31	\$2.31	\$2.31	\$2.31	\$0.00		\$1.75
Marginal Subsidy/Passenger	\$11.69	\$29.53	\$13.05	\$68.86	\$27.50	\$74.99	\$32.07	\$66.64		\$28.52
Revenue/Passenger	\$2.71	\$2.71	\$2.67	\$3.51	\$3.45	\$3.50	\$2.66	\$1.72		\$2.68
Passengers/VSH	10.25	4.80	9.46	2.64	5.57	2.47	5.25	1.86		4.81
Passengers/VSM	0.82	0.30	0.70	0.09	0.27	0.09	0.38	0.19		0.32
<b>Total Allocated Farebox Ratio</b>	<b>18.8%</b>	<b>8.4%</b>	<b>17.0%</b>	<b>4.8%</b>	<b>11.1%</b>	<b>4.5%</b>	<b>7.7%</b>	<b>2.5%</b>		<b>8.6%</b>

\*Route A/S (Alta Sierra) runs only on Saturdays & COVID-19 Schedule

\*\*Routes 5, 7 & Tripper do not run on Saturday

\*\*\*Route 5 allocated costs less revenue from Placer County contract



**COUNTY OF NEVADA  
COMMUNITY DEVELOPMENT AGENCY  
DEPARTMENT OF PUBLIC WORKS  
TRANSIT SERVICES DIVISION  
950 MAIDU AVENUE, NEVADA CITY, CA 95959-8617  
(530) 477-0103 Toll Free (888) 660-7433 FAX (530) 477-7847  
<http://new.nevadacounty.com>**

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Heba El-Guindy,  
Director of Public Works

Robin Van Valkenburgh, Transit Services Manager

**TRANSIT SERVICES COMMISSION  
Information Item**

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**MEETING DATE:** January 24, 2024

**TO:** Transit Services Commission

**FROM:** Robin Van Valkenburgh, Transit Services Manager

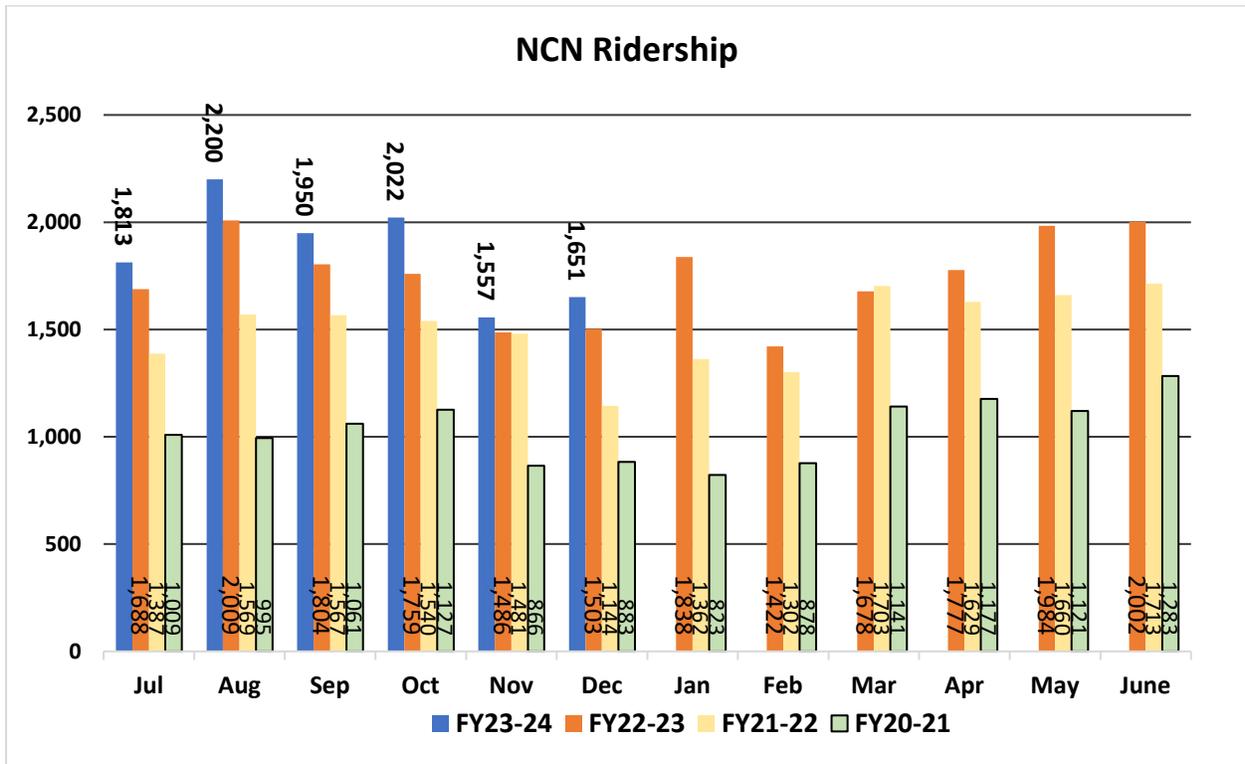
**SUBJECT:** Nevada County Now Operations Report for November and December 2023

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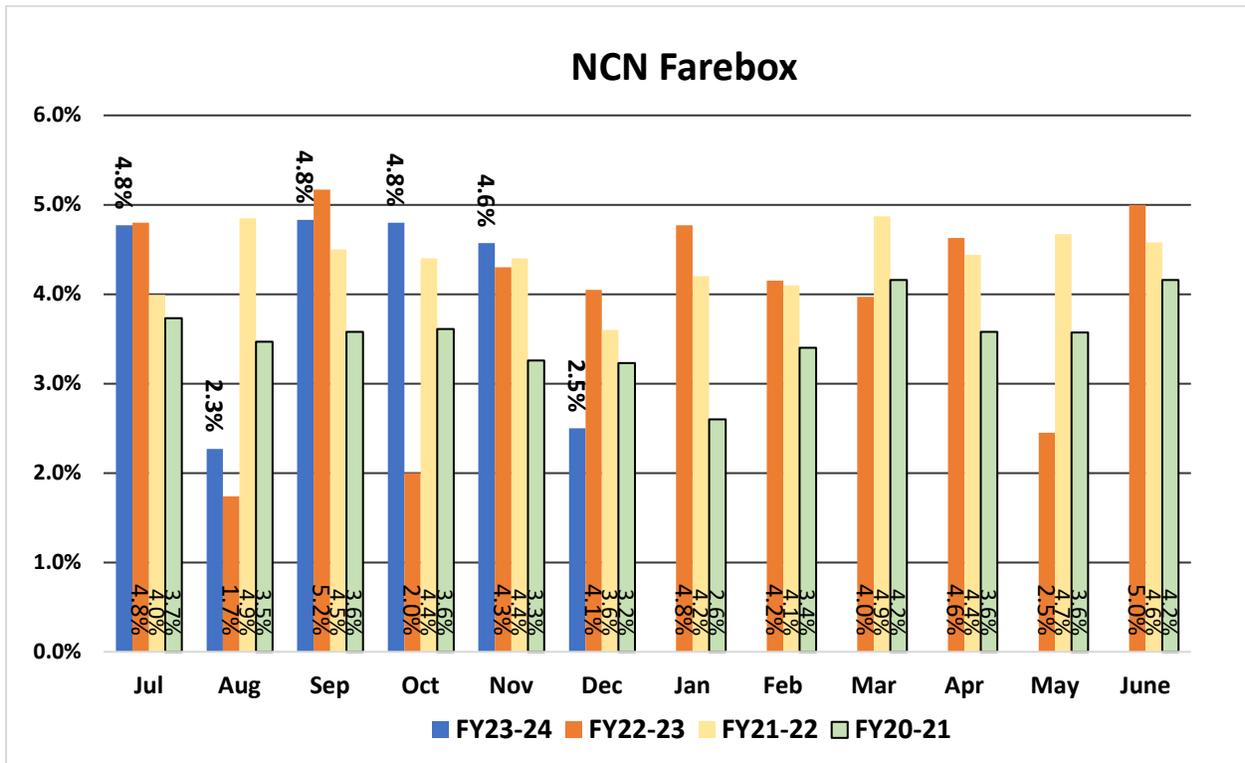
**RECOMMENDATION:** Accept the report.

**BACKGROUND:** Nevada County Now (NCN) operates Americans with Disabilities Act (ADA) paratransit service Monday through Saturday, serving the communities of Grass Valley, Nevada City, Penn Valley, Rough and Ready, Lake Wildwood and Alta Sierra. The following performance metrics are captured and reported on a monthly basis.

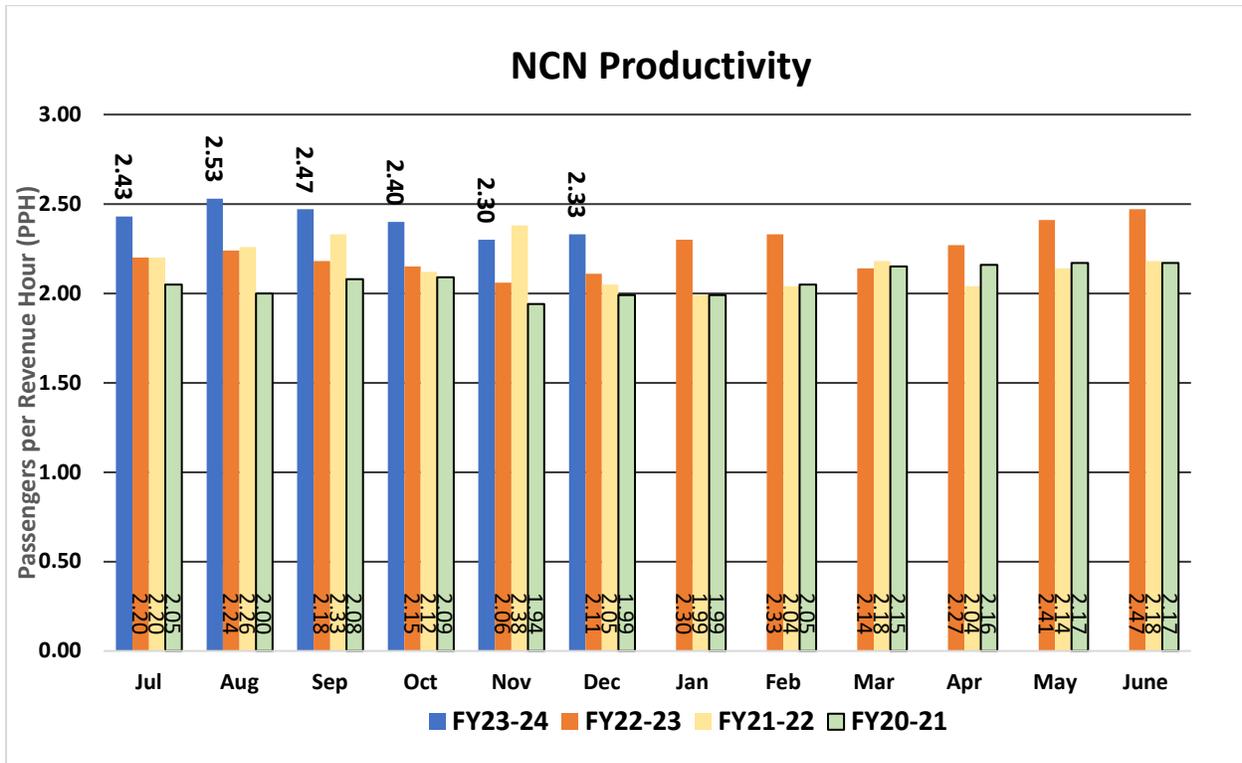
## Ridership



## Farebox



## Passenger per Service Hour-PPH (productivity)



### Year-to-Date

Total boardings year-to-date (YTD) FY23-24 are 11,193, an increase of 9 percent compared to the prior year (FY23/24 11,193 vs. FY22/23 10,249).

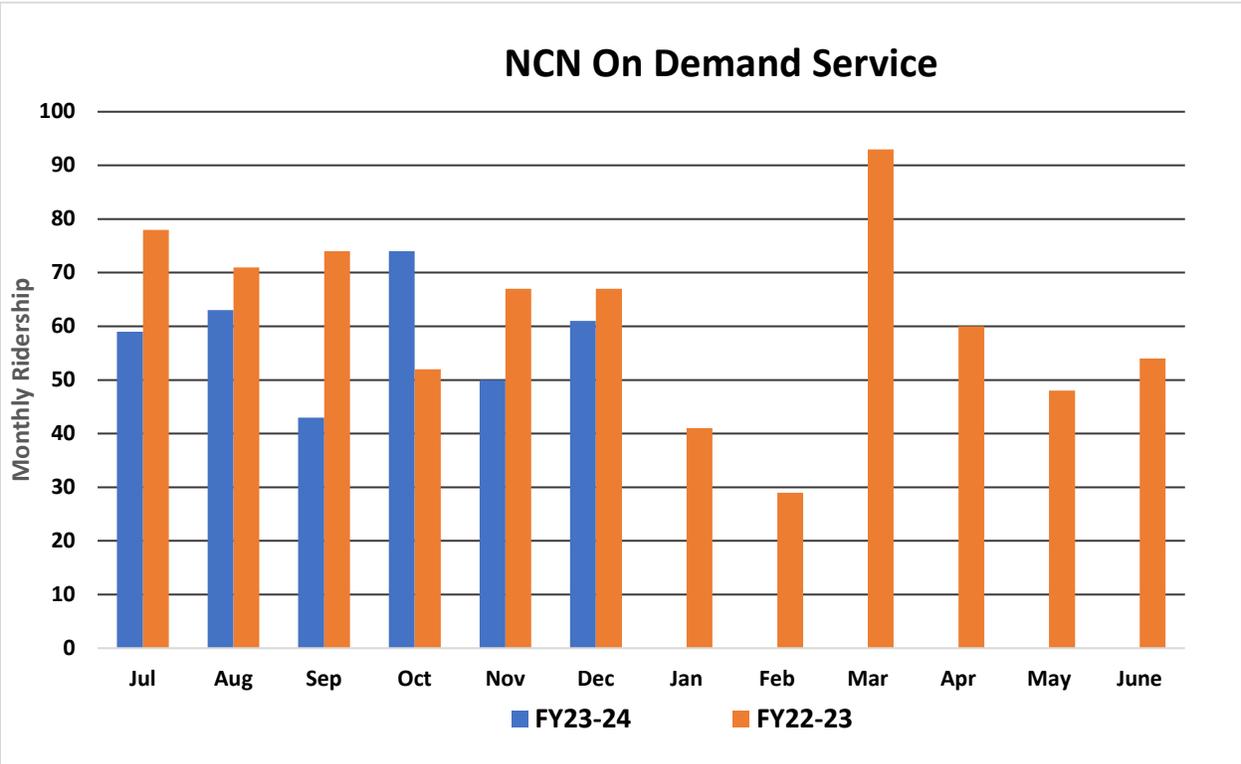
The NCN farebox recovery rate (FBR) for FY23-24 YTD is 4.0 percent, which is an increase of 8 percent over prior year (FY22/23 3.7 percent). This is a positive trend that follows the increase in ridership we are seeing. It should be noted that the significant fluctuations in monthly FBR, as seen in August and December, are due to multiday free fare events wherein the fares are not collected by Paratransit Services, rather they are paid by LCTOP grant funds.

Productivity for FY23/24 YTD is at 2.41 PPH which is 12 percent above prior year for the same period (FY23/24 2.41 vs. FY22/23 2.16)

### On-Demand Services

Senior On-demand services were implemented in April 2020, providing on-demand service to seniors 65 and over within the regular ADA service, with ADA On-demand service beginning in August 2023.

Year-to date the overall combine on-demand service has provided 350 passenger trips, which is 14 percent below the prior year for the same period (FY23/24 350 vs FY22/23 409). This is a slower than expected start to the year with the addition of ADA on-demand service, staff will work with Paratransit Services staff to develop strategies to increase ridership. The expectation is that we will continue to see increases in the on-demand services as consumers get more familiar with the new processes.



Please contact me if you have any questions prior to the January 24, 2024 TSC Meeting.

TT:RVV

Monday-Saturday	July	August	September	October	November	December	January	February	March	April	May	June	Yr to Date
Days of Service													0
Total Mileage:	10,627	12,587	11,446	11,908	9,262	9,674							65,504
Service Miles	9,346	11,210	10,096	10,524	8,189	8,640							58,005
Deadhead Miles	1281	1377	1350	1384	1073	1034							7499
<b>18,400</b>													
Total Hours:	932.82	1,074.83	977.40	1,054.55	844.83	885.85							5,770.28
Service Hours	769.42	897.23	806.38	872.73	699.43	735.35							4,780.55
Deadhead Hours	163.40	177.6	171.0167	181.8167	145.4	150.50							989.73
<b>Percent of Max Hours</b>	<b>5%</b>	<b>6%</b>	<b>5%</b>	<b>6%</b>	<b>5%</b>	<b>5%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>31%</b>
Boardings/Delivered	1,813	2,200	1,950	2,022	1,557	1,651							11,193
Subscriptions	1157	1353	1211	1223	857	960							6761
Demand Response	597	774	696	725	650	630							4072
Senior DAR Delivered	59	53	33	31	21	39							236
ADA DAR Delivered		10	10	43	29	22							114
Non Boardings	79	86	90	101	100	73							529
No Shows	14	22	25	26	26	18							131
Late Cancels	54	44	52	65	63	44							322
Group No Shows	7	11	9	6	5	8							
Group Late Cancels	4	9	4	4	6	3							
Refused	0	0	0	0	0	0							0
Denials	0	0	0	0	0	0							0
In Service Veh Failures	0	0	0	0	0	0							0
Accidents	0	0	0	0	0	0							0
Fare Revenue	\$5,302.00	\$5,621.05	\$5,627.00	\$5,756.00	\$5,078.00	\$ 2,826.00							\$30,210.05
Farebox Percentage	4.77%	4.64%	4.83%	4.80%	4.57%	2.50%							4.35%
Passengers Per Hour	2.43	2.53	2.47	2.40	2.30	2.33							2.41
Price/Ride	\$ 2.92	\$ 2.56	\$ 2.89	\$ 2.85	\$ 3.26	\$ 1.71							\$ 2.70
Subscription %	63.82%	61.50%	62.10%	60.48%	55.04%	58.15%							60.18%
No Show %	0.77%	1.00%	1.28%	1.29%	1.67%	1.09%							1.18%
Late Cancel %	2.98%	2.00%	2.67%	3.21%	4.05%	2.67%							2.93%
Group No Shows %	0.39%	0.50%	0.46%	0.30%	0.32%	0.48%							
Group Late Cancels %	0.22%	0.41%	0.21%	0.20%	0.39%	0.18%							
Refused %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%							0.00%
Denials %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%							0.00%
ADA Board/Delivered	1684	2046	1833	1877	1452	1528							10420
ADA % of Total	93%	93%	94%	93%	93%	93%							93%
ADA No Shows	13	21	24	26	25	16							125
ADA Subscription	1098	1282	1148	1161	809	909							6407