

#### **Mountain Rides Transportation Authority**

#### **PUBLIC NOTICE**

Agenda for Regular Meeting of the Board of Directors

Wednesday, October 16, 2019, 12:30pm

Ketchum City Hall Council Chambers, 480 East Ave. N., Ketchum, ID 83340

**Members:** Chair Kristin Derrig (Ketchum), Vice-Chair Grant Gager (Ketchum), Secretary Tory Canfield (at-large), Kathleen Kristenson (Blaine County), Tom Blanchard (Bellevue), Jim Finch (Hailey), Rick Webking (Sun Valley), Peter Hendricks (Sun Valley)

- 1. Call to Order
- 2. Comments from the Chair, Members and Staff
- 3. Public comment re: items not on the Agenda (and questions from the press)
- **4. Action item:** Consent Agenda (p.2)
  - a. Approve: Minutes of Regular Board Meeting, September 18, 2019 (p.3-4)
  - b. Approve/adopt: Mountain Rides' FY2020 Organization Chart, Positions and Pay Scale (p.5-7)
  - c. Receive/file: Report: Alternative Fuel Technology Implementation Plan for the MRTA System (Fonnesbeck Electric Bus Solutions, Sep 2019) (p.8-41)
  - d. Approve/adopt: Bylaws re: Amendment of Article One (p.42-49)
  - e. Receive/file: Performance Dashboard Report for Sept 2019 (p.50-54)
  - f. Receive/file: Financial Statements, Bills Paid and Operating financial Reports August 2019 (p.55-60)
  - g. Receive/file: Planning & Marketing Committee, Oct 2, 2019, Minutes (p.61)
  - h. Receive/file: Finance & Performance Committee, Oct 2, 2019, Minutes (p.62-63)
  - i. Receive/file: Reports from Director, Community Development; Director, Transit Operations; Director, Finance & Administration; Executive Director (p.64-67)
- 5. Action item: Consideration of Re-structuring Fares for the Hailey Route (p.68)
- 6. **Action item:** Selection of Sub-committee to Evaluate Candidates and Recommend a Candidate for Serving a three-year Term as Director At-large (p.69)
- 7. Adjourn

NOTE: Public information on agenda items is available from the Mountain Rides' office at 800 1<sup>st</sup> Ave. North, Ketchum, or 208-788-7433. Any person needing special accommodation to attend the above noticed meeting should contact Mountain Rides two days prior to the meeting at 208-788-7433.

### Mountain Rides Consent Agenda Item Summary

<u>Date:</u>	October 16, 2019 From: MRTA staff
Action Item:	4. Consent Agenda
Committee Review:	Yes No Committee Performance; Planning & Marketing Purview:
Previously discussed at board level:	Yes No
Recommended Motion:	I move to approve, receive, file, and adopt the Consent Agenda.
Fiscal Impact:	NA
Related Policy or Procedural Impact:	NA
Background:	a. Approve: Minutes: Board of Directors Meeting, September 18, 2019
	b. Approve/adopt: Mountain Rides' FY2020 Organization Chart, Positions and Pay Scale
	c. Receive/file: Report: Alternative Fuel Technology Implementation Plan for the MRTA System (FEBS, Sep 2019)
	d. Approve/adopt: Bylaws re: Amendment of Article One
	e. Receive/file: Performance Dashboard Report for Sept 2019
	f. Receive/file: Financial Statements, Bills Paid and Operating Financial Reports Aug 2019
	g. Receive/file: Planning & Marketing Committee Meeting minutes, 10/2/2019
	h. Receive/file: Finance & Performance Committee Meeting minutes, 10/2/2019
	i. Receive/file: Reports from Director, Community Development; Director, Transit Operations; Director, Finance & Administration; Executive Director



RECORDED

# REGULAR MEETING MINUTES MOUNTAIN RIDES TRANSPORTATION AUTHORITY Wednesday, September 18, 2019, 12:30 p.m. Ketchum City Hall Meeting Room, Ketchum, Idaho

The Mountain Rides Transportation Authority's Board of Directors met in a Regular Meeting in the Ketchum City Hall Meeting Room, Ketchum, Idaho.

PRESENT: Chair Kristin Derrig (Ketchum), Vice-chair Grant Gager (Ketchum), Kathy

Kristenson (Blaine County), Jim Finch (Hailey), Peter Hendricks (Sun Valley),

Rick Webking (Sun Valley) and Tom Blanchard (Bellevue)

ABSENT: Secretary Tory Canfield (at-large)

ALSO PRESENT: Mountain Rides Executive Director, Wally Morgus

Mountain Rides Director, Transit Operations, Ben Varner

Mountain Rides Director, Finance & Administration, Tucker Van Law Mountain Rides Director, Community Development, Kim MacPherson

**Emily Jones, Idaho Mountain Express** 

#### 1. CALL TO ORDER

Chair Kristin Derrig called to order the meeting of Wednesday, September 18, 2019 at 12:31pm. Grant Gager called roll and determined that a quorum was present.

#### 2. COMMENTS FROM THE CHAIR AND BOARD MEMBER THOUGHTS

Grant Gager said thank you to the Mountain Rides staff for all their hard work through a busy summer.

Jim Finch said the ridership numbers looked across the board and that Mountain Rides has a sustainable future. He said he was excited about the new bus stop improvement in Bellevue. Peter Hendricks said we did a terrific job for the safety record.

### 3. PUBLIC COMMENT PERIOD FOR ITEMS NOT ON THE AGENDA (incl. questions from Press) There was none.

#### 4. ACTION ITEM: Approve Consent Calendar items

- a. Approve minutes: Regular board meeting, August 21, 2019
- b. Receive/file: Extension, through Sep 30, 2023, of Mountain Rides Transportation Authority's Joint Powers Agreement and By-laws.
- c. Approve/adopt: Mountain Rides' FY2020 Transportation Service Plan
- d. Receive/file: Performance Dashboard report for August 2019
- e. Receive/file: Financial Statements and Bills Paid reports for July 2019
- f. Receive/file: Planning & Marketing Committee, Sept 4, 2019, Minutes

- g. Receive/file: Finance & Performance Committee, Sept 4, 2019, Minutes
- h. Receive/file: Reports from Director, Community Development; Director, Transit Operations; Director, Finance & Administration; Executive Director

Grant Gager moved to approve the Consent Agenda less the by-laws (4b) which will go to committees at a later date. Peter Hendricks seconded. The motion passed.

#### 5. ACTION ITEM:

Approve/adopt Mountain Rides' FY2020 (Oct. 1, 2019 - Sep 30, 2020) Budget, including Operating and Capital Funds revenue and expenditures

The budget has gone to both committees at this point. This is the final version.

Rick Webking moved to approve and adopt the fiscal year 2020 Operating and Capital Budgets for Mountain Rides Transportation Authority. Grant Gager seconded. The motion passed.

#### 6. DISCUSSION ITEM:

Board and committee seats

Wally Morgus stated we will balance out the committees. Tom Blanchard will now be on Finance & Performance committee.

Current members:

Finance committee: Grant Gager, Kathleen Kristenson, Rick Webking and Tom Blanchard. Grant Gager is chair.

Planning committee: Kristin Derrig, Tory Canfield, Jim Finch and Peter Hendricks. Tory Canfield is chair.

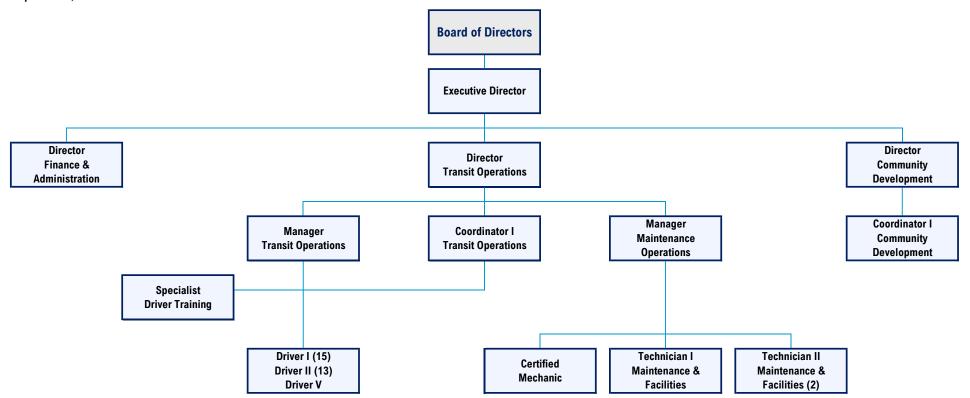
The deadline for at-large applications is Sept 30, 2019.

The City of Ketchum is appointing Kristin Derrig to the Mountain Rides board again.

#### 7. ADJOURNMENT

Grant Gager moved to adjourn the meeting at 12:44pm. Peter Hendricks seconded. The motion carried unanimously.

Chair Kristin Derrig	



#### FY2020 Adopted

Code	No.	Min (I	Hire)	M	ax (Perf)	Preferred Credentials, Experience, Skills
		+2.00	% YoY			
00 EDR	1	\$ 82,	,000	\$	115,000	Advanced degree or equivalent; 10+ years of leadership/management experience; excellent strategic planning, organizational development, financial, communications, presentation, and interpersonal skills.
02 DIR	3	\$ 61,	,000	\$	85,000	BS/BA or equivalent; 7+ years of leadership/management experience; excellent field- specific, communications, presentation, technological, and interpersonal skills and experience. Team player / team builder.
05 MGR	2	\$ 51,	,000	\$	71,000	BS/BA or equivalent; 4+ years of leadership/management experience; excellent field- specific, communications, presentation, technological, and interpersonal skills and experience. Team player / team builder.
07 CD1	2	\$ 41,	,000	\$	57,000	AD or equivalent; 2+ years of leadership/management experience; excellent field- specific, communications, presentation, technological, and interpersonal skills and experience. Team player / team builder.
		+2.00	% YoY			
09 SPC	1	\$	23.00	\$	34.50	AD or equivalent; 2+ years directly related experience; excellent field-specific, communications, technological, and interpersonal skills and experience. Team player.
10 CD2	0	\$	18.60	\$	27.90	High School Diploma or equivalent; safe driving record; excellent customer service, communications, technological, and interpersonal skills and experience; Class B CDL. Team player / team builder.
11 D01	15	\$	16.60	\$	27.40	High School Diploma or equivalent; 3+ years of bus driving experience; safe driving record; excellent customer service, attention-to-detail and interpersonal skills; Class B CDL. Team player.
12 D02	13	\$	16.60	\$	24.90	High School Diploma or equivalent; 1+ years of bus driving experience; safe driving record; excellent customer service, attention-to-detail and interpersonal skills; Class B CDL. Team player.
15 D05	0	\$	15.80	\$	16.60	High School Diploma or equivalent; 1+ years of bus driving experience; safe driving record; excellent customer service, attention-to-detail and interpersonal skills; Class B CDL. Team player.
22 CMC	1	\$	21.40	\$	32.10	High School Diploma or equivalent; 3+ years direct experience as a diesel fleet mechanic; Class B CDL; Certification (ASE). Team player.
31 TC1	1	\$	16.60	\$	24.90	High School Diploma or equivalent; 1+ years direct experience as a vehicle mechanic; ability to take direction in English. Team player.
32 TC2	2	\$	15.30	\$	23.00	High School Diploma or equivalent; 1+ years direct experience as a vehicle mechanic; ability to take direction in English. Team player.
	00 EDR  02 DIR  05 MGR  07 CD1  09 SPC  10 CD2  11 D01  12 D02  15 D05  22 CMC	00 EDR 1  02 DIR 3  05 MGR 2  07 CD1 2  09 SPC 1  10 CD2 0  11 D01 15  12 D02 13  15 D05 0  22 CMC 1  31 TC1 1	+2.00 00 EDR	+2.00% YoY  00 EDR	1	1

41 Tot.

#### **Payscale Guidelines**

New hires are to be paid within the bottom 1/3 of the Range for the Position, with the Range for each Position bracketed by "Min \$ (Hire)" on the low end and "Max \$ (Perf)" on the high end. Paying new hires outside of the "bottom 1/3 range" requires the new hire's significantly exceeding qualifications and the ED's approval.

Salary and wage increases are determined by Total Performance Evaluation Points; however, an employee's salary or wage is limited to the Max \$ for his/her respective position.

Salary or wage increases generally occur in conjunction with an employee's annual performance evaluation. Salary or wage increases generally do not accompany an employee's initial 90-day performance evaluation.

The Executive Director, exclusively, may approve a one-time salary or wage adjustment for an employee whose performance merits same, subject to the salary or wage conforming to the range specified for the position and the adjustment being <=5%.

Any employee whose pay is above the range for his/her position and whose responsibilities remain the same, remains at his/her pay rate as an exception to the range for his/her position.

If/when an employee's responsibilities and position change, he/she becomes eligible immediately for the pay rates for the new position.

### Mountain Rides Transportation Authority Performance Evaluation Scoring Matrix re: Merit Increases September 4, 2019

Performance Evaluation Score (Points)	Percentage Increase (Raise)
0.0 to 11.5	0.0% to 0.9%
11.6 to 17.5	1.0% to 2.5%
17.6 to 22.5	2.6% to 3.5%
22.6 to 25.0	3.6% to 4.5%

Part-time Winter Driver receives a Performance Evaluation after the Winter Season; then, upon return for the next Winter Season, earns a new wage that is calculated based on the score on the previous Winter Season's Performance Evaluation. Every other employee receives an annual Performance Evaluation on his/her hire date anniversary and earns a new wage subsequent to and based on that Performance Evaluation.

# Alternative Fuel Technology Implementation Plan (AFTIP) for Mountain Rides Transportation Authority



### Alternative Fuel Technology Implementation Plan for the Mountain Rides Transportation Authority System

**Compiled September 2019** 

**Prepared for** 

**Mountain Rides Transportation Authority** 

By

**Fonnesbeck Electric Bus Solutions LLC** 

Sandy, Oregon

## Alternative Fuel Technology Implementation Plan (AFTIP)

An Alternative Fuel Technology Implementation Plan for Mountain Rides Transportation Authority to transition from the current diesel transit bus fleet to a battery electric bus fleet by 2029

Prepared for the

Mountain Rides Transportation Authority 800 1<sup>st</sup> Ave North Ketchum, ID 83340 (208) 788-7433

Prepared by

Fonnesbeck Electric Bus Solutions LLC 19233 Oak Ave Sandy, OR 97055 (435) 901-0938

September 2019

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#### 1. Introduction

In May 2019 Mountain Rides Transit Authority (MRTA) enlisted the services of Fonnesbeck Electric Bus Solutions LLC (FEBS) through a competitive Request-For-Proposal process, to perform the following:

- Alternative Fuel Technology Opportunity Assessment (AFTOA) survey to inform decisions to transition and replace the current diesel transit fleet over the next 7-10 years (Appendix A).
- Alternative Fuel Technology Recommendation (AFTR) (Appendix B).
- Alternative Fuel Technology Implementation Plan (AFTIP).

The AFTOA and AFTR were completed and presented to the MRTA board at the July 17, 2019 MRTA Board meeting. At the meeting FEBS recommended that the Alternative Fuel Technology that would work best in the MRTA system was Battery Electric and the MRTA board accepted the recommendation.

With the Battery Electric recommendation this plan will generally map a course for the transition of the MRTA Low Floor bus fleet from the current diesel buses to Battery Electric buses in the next 7-10 years. As part of this plan FEBS has used available battery electric technology and specifications to provide a plan moving forward. Not all manufacturers of battery electric buses can meet the needs at this time for the first MRTA buses but with battery electric technology moving forward rapidly they may be able to meet the specifications in future bus procurements. The scale is tipping towards a standard 800 Volt bus and charging infrastructure which will help open the ability to have multiple brands of buses in the MRTA fleet in the future if desired. This report does not attempt to define a manufacturer but does use data from the one with the longest range to meet the current needs of the MRTA system and to produce a plan that will not require additional buses to meet the daily routes.

Also, to take into consideration in this report are that prices are estimated on a base configuration and any additional configuration items added to the bus will affect the cost.

The AFTIP includes a fleet replacement, financial, operating, capital, marketing plans, and other considerations needed for a transition of this type. Other factors considered in this report are the changeable nature of conditions and demand in a resort-based community.

It should also be noted that during FEBS meetings with the MRTA staff and the MRTA Board members FEBS discussed that sometimes when you make these types of changes that it is a good time to also make changes towards efficiency and or service changes. In learning the MRTA system there is not a recommendation to change or adjust routes at this time due to the limited number of buses that will be purchased at the beginning of this transitional plan. As MRTA gets experience with operating additional electric buses then staff may have some recommendations for changes. When MRTA updates the Five-Year Strategic Plan for 2016-2020 then their may be opportunities to make routing changes that will meet well with the Battery Electric bus capabilities and provide service improvements.

#### 2. Battery Electric Bus Replacement Schedule

The goal of the AFTIP is to provide a viable diesel to battery electric bus implementation plan that can be followed for the next 7-10 years. In Table 1 below a 10-year plan has been demonstrated using the following assumptions and constraints:

- Available funding for capital purchases regarding Federal, State, and Local agency funds.
   These include Federal grants such as 5339, 5339c (Low No Grants), State transportation funding (VW settlement funds grant, DERA grant funding), Local Capital funding.
- Current state of the Diesel fleet considering all 17 low floor buses that have an equivalent Battery Electric replacement.
- Age and mileage of each bus according to the Federal definition of useful life of 12 years or 500,000 miles.
- Average miles per route per year considering all routes is 50,000 miles per year.
- Peak season need of 12 transit buses with 5 spare buses.
- Battery Electric bus technology progression in range, battery efficiency, and charging.
- Cut-away buses and vans were not included in this document because the Battery Electric technology has not yet reached viable ranges and faster charging to reach the useful threshold for MRTA.
- Odometer listing in table is based off information obtained from MRTA in July 2019.
- The current MRTA bus # is listed in the table along with an AFTIP Bus identifier letter for reference to other capital and financial plans supplied as part of this document.
- The first 3 buses are to be replaced using the \$1,768,500 obtained from the State as a
   VW settlement fund grant and will need to be removed from service immediately upon
   delivery of the battery electric buses and as part of the grant requirements, made
   inoperable and only disposed of as scrap due to the emissions reductions stipulations
   tied to the grant money.
- Proceeds from sale of all remaining diesel buses will go back into the MRTA capital fund to help with future purchases (this will not be a significant amount but will help).
- The replacement schedule shows a 10-year plan but could be condensed to 7 years if funding is available.

At the time of this report MRTA has acquired enough funds between Federal, State, and Local match to purchase the first four battery electric buses with their associated charging systems. In subsequent years MRTA will need to use various grant funds that would have been used to replace diesel buses combined with State and Local match funds to purchase new Battery Electric buses and charging infrastructure. Further on in this document in Table 4 is laid out a 10-year capital plan and Table 5 battery replacement plan. Some of the local funding can come from the cost saving of running battery electric buses vs diesel buses if that realized savings is placed in a Capital Replacement fund to be used for the replacement of batteries and buses.

Table 1

MRTA Battery Electric Bus Replacement Schedule								
Replacement	AFTIP Bus	MRTA			License			
Year	Identifier	Bus#	Year	Make	Plate	VIN#	Odometer	Comment
	Α	31	2005	OPTIMA BUS	C19418	1Z9B5BSS35W216283	298702	VW Settlement Fund
2020	В	3	2002	GILLIG BUS	C5764	15GGE181921090287	602978	VW Settlement Fund
2020	С	4	2002	GILLIG BUS	C5765	15GGE181021090288	586639	VW Settlement Fund
	D	32	2005	OPTIMA BUS	C19543	1Z9B5BSS45W216289	263422	
2021	Е	33	2005	OPTIMA BUS	C19544	1ZB5BBSS15W216279	268049	
2021	F	34	2002	GILLIG BUS	C19904	15GGE181921090533	432804	
2022	G	1	2006	GILLIG BUS	C14225	15GGE291561091124	484715	
2022	Н	2	2006	GILLIG BUS	C14226	15GGE291761091125	502479	
	I	5	2007	GILLIG BUS	C14926	15GGB291571077671	738429	
2023	J	25	2011	INTERNATIONAL BUS	C17093	4DRASSKM3BH291846	157912	
	K	27	2011	INTERNATIONAL BUS	C17091	4DRASSKM7BH291848	285305	
2024	L	23	2012	INTERNATIONAL BUS	C17498	4DRASSKM2CJ557092	75575	
2024	М	28	2012	GILLIG BUS	C17538	15GGE2710B1091934	298668	
2026	N	29	2014	GILLIG BUS	C18575	15GGB2715E1182419	206047	
2027	0	30	2015	GILLIG BUS	C19403	15GGB2718F1181508	207355	
2020	Р	201	2017	NEW FLYER BUS	C20414	5FYD8KV05HF052019	71835	
2029	Q	202	2018	NEW FLYER BUS	C20910	5FYD8KV09KF055142	23951	

#### 3. Operational Scenarios

While battery electric technology for transit buses has moved forward at a rapid pace over the last 10 years it still is unable to match the ranges of a diesel bus on most routes without some additional charging infrastructure, additional driver training, and occasional backup. Factors such as temperature due to the running of the HVAC can use up additional energy on the route which can affect range. In the MRTA operations environment, summer and winter seasons will reduce range due to air conditioning and heat. It has been the goal of FEBS in this report to present two viable scenarios that will work for the first four buses purchased.

Both Table 2 and Table 3 below present scenarios that will provide for a successful launch into the new battery electric buses. Each scenario will require some changes in operations as well as charging infrastructure to be successful. The differences will be discussed in each scenario.

It is important to note that the following scenarios were built to maximize the battery electric bus use for the entire route each day without having to switch in spare diesel buses towards the end of the day. Other scenarios could be used but would most likely require supplementation each day of another bus. As battery technology improves causing range to increase buses purchased in subsequent years will get to a point where they could be used on all routes with a few different charging scenarios. This report does not attempt to define those other scenarios.

Scenario 1 – Balanced Routes: This scenario takes the first four buses purchased and operates them in such a way as to spread them throughout the system to ensure that everyone sees the new Battery Electric buses and starts to understand that they will work in various situations. In the table below Spring, Summer, Fall, and Winter seasons are denoted in the route description as SpSFW or a combination of. This means for example that Valley 3 + 7 could run the route fully during the Spring, Summer, and Fall (SpSF) seasons and the Silver Route during the Winter (W) season.

In Table 2 below it shows the route name, a BE Bus Number for convenience and identification, the actual annual miles of that route, an average annual miles for that route, and the operational and maintenance costs for that route based on the average annual miles compared to running a diesel bus on exactly the same route. This gives an estimated annual savings of running the Battery Electric bus vs Diesel bus in the exact same way of \$29,427 per bus. This estimated annual savings could be deposited into a capital reserve account to pay for replacement batteries (see Tables 4 & 5) in approximately 6 years.

Scenario 1 will require 3, 125 KWh depot chargers, with 2 installed at the Bellevue site and 1 installed in Ketchum. The 125 KWh depot chargers have the capability of having two buses plugged in at one time, charging up one bus to full in approximately 2.8 hours and subsequently the second bus in 2.8 hours.

Table 2

Table 2							
Annual Operati	ons Cost Sce	nario 1 - B	alanced F	Routes - Ba	attery Elect	ric vs. Dies	el
			Average		Electric Cost	Maint. Cost	Annual
		Annual	Annual	Average	per Yr. @	@	Operating
Route	BE Bus Number	Miles	Miles	KWh/Mile	\$0.08/KWh	\$0.75/Mile	Cost
Valley 2 AM/PM SpSF	1	56576	50000	1.7	\$6,800	\$37,500	\$44,300
Valley 3 + 7 SpSF and Silver W	2	62193	50000	1.7	\$6,800	\$37,500	\$44,300
Valley 4 + 8 SW and Blue 2 SpF	3	48135	50000	1.7	\$6,800	\$37,500	\$44,300
Hailey SpSFW	4	33020	50000	1.7	\$6,800	\$37,500	\$44,300
			Average		Diesel Cost	Maint. Cost	Annual
	Diesel Bus	Annual	Annual	Average	per Yr. @	@	Operating
Route	Number	Miles	Miles	MPG	\$3.05/gal	\$0.92/Mile	Cost
Valley 2 AM/PM SpSF	1	56576	50000	5.5	\$27,727	\$46,000	\$73,727
Valley 3 + 7 SpSF and Silver W	2	62193	50000	5.5	\$27,727	\$46,000	\$73,727
Valley 4 + 8 SW and Blue 2 SpF	3	48135	50000	5.5	\$27,727	\$46,000	\$73,727
Hailey SpSFW	4	33020	50000	5.5	\$27,727	\$46,000	\$73,727

Scenario 2 – Valley Route: This scenario takes the first four buses purchased and operates them in such a way as to encourage the commuters to use the new zero tailpipe emissions buses rather than drive. This scenario would require a 500 KWh fast charger installed at the beginning of the route at Bellevue and one less 125 KWh depot charger. There would still be 2, 125 KWh depot chargers installed at the Bellevue facility for overnight charging of the four buses. It would also

require the buses to stop and charge for 3-7 minutes each time they complete a full circle route depending on the usage of the HVAC system on the bus. With all 4 Battery Electric buses on the Valley route the initial charger infrastructure construction will all be in Bellevue.

In Table 3 below it shows the route, a BE Bus Number for convenience and identification, the actual annual miles of that route, an average annual miles for that route, and the operational and maintenance costs for that route based on the average annual miles compared to running a diesel bus on exactly the same route. This gives an estimated annual savings of running the Battery Electric bus vs Diesel bus in the exact same way of \$50,374 per bus.

However, the amount of mileage each year would prematurely cause the bus to not last the 12 years without replacing the batteries every 4 years and refurbishment of major components every 6 years. The additional replacements and refurbishments would negate any additional savings over Scenario 1.

The proper way to operate Scenario 2 without wearing out the buses before their useful life of 12 years is to balance their mileage. Therefore, in Scenario 2 you would use the 4 buses for the first year, balancing their mileage throughout the year to achieve around the 85,592-mile average per bus for the year. When MRTA purchases the next two Battery Electric buses in 2021 they would place those two buses on the Valley 1 and 2 routes and then keep the other two buses on the other Valley routes for the next year rotating them out when MRTA purchases the next round of buses. Placing the two highest mileage buses on routes with less miles to bring the average miles on those buses back to the 50,000 miles per year.

Table 3

Table 3							
Annual (	Operations Co	ost Scenario 2	! - Valley Rou	ite - Batte	ry Electric v	vs. Diesel	
					Electric Cost	Maint. Cost	Annual
			Average	Average	per Yr. @	@	Operating
Route	BE Bus Number	Annual Miles	Annual Miles	KWh/Mile	\$0.08/KWh	\$0.75/Mile	Cost
Valley 1 AM/PM	1	124465	85592	1.7	\$11,641	\$64,194	\$75,835
Valley 2 AM/PM	2	93440	85592	1.7	\$11,641	\$64,194	\$75,835
Valley 3 + 7	3	77745	85592	1.7	\$11,641	\$64,194	\$75,835
Valley 4 + 8	4	46720	85592	1.7	\$11,641	\$64,194	\$75,835
					Diesel Cost	Maint. Cost	Annual
	Diesel Bus		Average	Average	per Yr. @	@	Operating
Route	Number	Annual Miles	Annual Miles	MPG	\$3.05/gal	\$0.92/Mile	Cost
Valley 1 AM/PM	1	124465	85592	5.5	\$47,465	\$78,745	\$126,209
Valley 2 AM/PM	2	93440	85592	5.5	\$47,465	\$78,745	\$126,209
Valley 3 + 7	3	77745	85592	5.5	\$47,465	\$78,745	\$126,209
Valley 4+8	4	46720	85592	5.5	\$47,465	\$78,745	\$126,209

Both Scenarios 1 & 2 are viable scenarios that will help MRTA begin the transition into a fully Battery Electric bus fleet.

#### 4. 10 YR Capital Transition Plan

In Table 4 below a Battery Electric Bus 10 YR Capital Transition Plan shows a financial schedule with estimated costs for replacing MRTA's Low Floor Diesel bus fleet in 7-10 years including battery replacement over the same time period.

It is important to note that Battery Electric Bus technologies are newer and as so prices are difficult to predict. Prices over the past 5 years have decreased substantially and as with most new technologies' prices begin to go down and stabilize as standards are adopted and manufacturing processes improve. Therefore, I have kept the prices in Table 4 consistent due to the unknown nature of where the prices will go. In Table 4 it shows purchases of 125KWh depot chargers in the first 5 years but no additional chargers in the following 5 years this is due to the fact that MRTA only needs enough 125KWh chargers to charge the number of buses needed during peak times which is 12 buses at the current configuration. The other spares can be placed on the chargers when needed while other buses are on route. There are also two additional 125 KWh chargers listed in Table 4 that may be used for some on route opportunity charges to help increase the range on some routes. The 125 KWh chargers can be configured with either a plugin charge connection or an overhead catenary/pantograph connection (see Figure 1).



Figure 1 - Overhead Catenary/Pantograph Type Charge Head

Again, as with Table 1 this 10-year capital plan could be escalated to a 7-year plan if funding is available.

Funding of the 10-year capital transition plan shown in Table 4 will need to be accomplished through a variety of sources listed below:

• Federal 5339 Bus and Bus Facilities grants – These are the grants that have been used in the past by MRTA to replace Diesel buses.

- Federal 5339c Low No Emissions grants MRTA has received \$2,000,000 dollars from this source. Next spring in 2020 will be the last year of the Low No program.
- State of Idaho dispersed Volkswagen Settlement funds MRTA received a grant of \$1,768,500.
- State of Idaho has implemented the DERA grant program that could be used for purchase
  of Battery Electric buses that has available funding of \$1,200,000 to \$1,500,000 per year
  of which MRTA should apply for.
- MRTA should try to work with Idaho Power to assist with installation and charger costs.
- All cost savings from the fuel and maintenance line items in MRTA's Budget from running Battery Electric vs Diesel should be applied to the capital replacement fund (see Table 5 Battery Replacement Schedule).
- All sales proceeds received for the disposal of retired buses should be placed in the capital replacement fund.

It will be important for MRTA to continue to look for other funding options for this very capital-intensive transition.

Table 4

	ı	Battery Ele	ectric Bus	10 YR Ca	pital Tran	sition Pl	an			
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
35 ft Battery Electric Bus	\$800,000									
35 ft Battery Electric Bus	\$800,000									
35 ft Battery Electric Bus	\$800,000									
35 ft Battery Electric Bus	\$800,000									
*125 KWh Depot Charger	\$106,000									
*125 KWh Depot Charger	\$106,000									
**500 KWh Fast Charger	\$500,000									
35 ft Battery Electric Bus		\$800,000								
35 ft Battery Electric Bus		\$800,000								
125 KWh Depot Charger		\$106,000								
125 KWh Depot Charger		\$106,000								
35 ft Battery Electric Bus			\$800,000							
35 ft Battery Electric Bus			\$800,000							
125 KWh Depot Charger			\$106,000							
125 KWh Depot Charger			\$106,000							
35 ft Battery Electric Bus				\$800,000						
35 ft Battery Electric Bus				\$800,000						
35 ft Battery Electric Bus				\$800,000						
125 KWh Depot Charger				\$106,000						
35 ft Battery Electric Bus					\$800,000					
35 ft Battery Electric Bus					\$800,000					
125 KWh Depot Charger					\$106,000					
35 ft Battery Electric Bus							\$800,000			
35 ft Battery Electric Bus								\$800,000		
35 ft Battery Electric Bus										\$800,000
35 ft Battery Electric Bus										\$800,000
Battery Replacement 4 Buses							\$480,000			
Battery Replacement 2 Buses								\$240,000		
Battery Replacement 2 Buses									\$240,000	
Battery Replacement 3 Buses										\$360,000
Total Capital/Year	* \$3,518,000	\$1,812,000	\$1,812,000	\$2,506,000	\$1,706,000	\$0	\$1,280,000	\$1,040,000	\$240,000	\$1,960,000

 $<sup>{\</sup>rm *1\,Additional\,125KWh\,instead\,of\,the\,500KWh\,Fast\,Charger\,would\,be\,needed\,if\,Operations\,Scenario\,1\,is\,considered.}$ 

\*\* \$3,912,000

<sup>\*\* 500</sup>KWh Fast Charger would be needed if Operations Scenario 2 is considered in order to keep all buses running the full valley route year round.

#### 5. Battery Replacement Schedule

Each Battery Electric bus at this time will need to have one battery replacement over the 12 years or 500,000 miles of useful life in order to keep them viable on route regarding range. Batteries should be replaced when they are around 80% efficient in order to ensure that they can still meet the needs of the MRTA system.

In Table 5 below is shown a battery replacement schedule for the first 10 years, this is set up to reflect the industry standard of meeting that 80% efficiency around 6 years. It is important to note that this is an estimate and could be a little sooner or later depending on the usage of the bus. The Battery Replacement Schedule in Table 5 uses the following assumptions:

- The buses are operated and maintained according to manufacturer guidelines.
- The mileage on each bus is balanced over the 12 years per each bus.
- The buses are not run down to a deep state of charge below 20% on a regular basis.

The funds for the battery replacement come from placing the savings from reduction of fuel and maintenance costs when using Battery Electric vs Diesel buses into a capital reserve to purchase new batteries.

Table 5 has an alphabetical bus identifier along the side for convenience in identifying which bus needs battery replacement and the cost and year of that replacement in the lower part of the Table.

As battery technologies improve along with electric motor efficiencies these estimates may need to be adjusted. Also, the Table assumes that battery prices will remain the same at \$120,000 per bus for the purpose of showing the pattern and trend of capital savings for the batteries. As stated previously it is possible as the technology moves forward with increases in competition and production improvements that the cost will decrease.

In using this suggested method MRTA can insure the longevity and dependability of the fleet of Battery Electric buses from financial downturns.

One other factor that MRTA needs to consider regarding Bus selection and batteries is the bus technology backwards compatible. In other words, will a battery purchased 6 years in the future have all the newest battery technologies and still be available for a 6-year-old bus or are you forced to buy older technology.

Table 5

			Batt	ery Repl	acement	Schedul	е			
AFTIP Bus										
Identifier	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Α	Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000			
В	Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000			
С	Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000			
D	Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000			
E		Purchased	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000		
F		Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000		
G			Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	
Н			Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	
ı				Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
J				Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
к				Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
L					Purchase	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
м					Purchase	\$20,000				. ,
N						. ,	Purchase	\$20,000		
o								Purchase	\$20,000	
P										Purchase
Q										Purchase
Total Capital		\$80,000	\$120,000	\$160,000	\$220,000	\$260,000	\$260,000	\$200,000		\$140,000
Deposited		. ,	. ,	. ,	. ,	. ,		. ,	. ,	. ,
per year for										
Battery										
Replacement										
Bus Batteries										
Replaced	-	-	-		-	-	A,B,C,D	E,F	G,H	I,J,K
Capital	40	40	40	4.0	40	40	ć400 000	ć240.000	6240.000	¢250.050
Expended	\$0	\$0	\$0	\$0	\$0	\$0	\$480,000	\$240,000	\$240,000	\$360,000

#### 6. Marketing and Public Relations

In order to ensure that MRTA has a successful transition it is important to have a marketing and public relations plan going forward. The following are critical factors to consider as MRTA is implementing a transition from Diesel to Battery Electric low floor buses:

- All MRTA staff need to be on board with the transition, MRTA Board members, Managers, Supervisors, Maintenance, Drivers, all other support staff.
- MRTA Board members should ensure that they carry a positive story in newspapers, radio, and to their various constituents.
- Just before ordering the buses put out a press release with talking points about the Transition Program.
- When ordering the buses, those that went back to the plant if they did should share their excitement about what is coming and when the buses should arrive (add a month or two

- onto the date just in case production is delayed or construction of chargers is slower than expected) (It is always easier to move the launch earlier if all goes well than to delay).
- Create a new look for the buses as far as wrap or wording on the side that will create a brand that ties to the current brand but will identify each bus as a Battery Electric Bus.
- With that new look create a smaller wrap that could temporarily go on the diesel buses that run on the routes the new buses are going to replace complete with implementation dates. This can build excitement with the communities and customers.
- When it is time to do the final inspection at the bus manufacturing plant make sure your
  mechanic staff is represented so that they can have the opportunity to get all of their
  questions answered as they will get to see the bus in all stages of production. You want
  to ensure that they come back with an excitement for the new technology. Because they
  will help ensure that the drivers hear positive things about the new buses.
- When MRTA is ready to start the buses on the route have a ribbon cutting event that goes all out in inviting the Governor, State Legislators, Idaho Congressional and Senate Representatives, State DOT, Idaho Power, FTA Regional partners, and of course the press, newspaper, radio, and TV stations. Tout that MRTA is the first transit agency in Idaho that is adopting Battery Electric bus technology. Start those routes right after the ribbon cutting so some of them can ride on them if they would like. You may also hold one bus back that would give those that don't have enough time to ride a full route a ride on the electric bus.
- Ensure that whatever bus manufacturer is used that they provide training for mechanics and drivers on the new technology and lessons learned from other agencies as they have started up.
- Arrange for Political leaders of the various communities to ride with a staff member so they can share their positive experience with their constituents.
- Ensure that your drivers have a list of talking points related to the buses because they will get asked many questions.

With any marketing and public relations plan it is crucial to listen to complaints and respond with solutions quickly. You will have breakdowns, accidents, power outages, etc. Have backup plans and train your staff as to what they should do in those situations. Be prepared to respond quickly to the media who may sometimes need a story on a slow news day, help them understand that you are working quickly to resolve whatever issue they are trying to exploit for a story.

#### 7. Conclusion

The MRTA Board and Staff are moving forward with transitioning from a Diesel based transit system to a Battery Electric transit-based system for both environmental and financial reasons. This decision is a paradigm shift in the current system that will provide MRTA a continued catalyst in moving towards a quieter more efficient system, as with any change their will be challenges to be overcome as this newer technology advances. As with any change there will be champions as well as critics. It will be important for all involved with MRTA to keep a positive outlook on this project supporting the champions and winning over

the critics with data and public support. It is an exciting time for MRTA, leading the State of Idaho and their region forward in taking this new transportation step.

#### **Appendix A**

Alternative Fuel Technology Opportunity
Assessment (AFTOA) for Mountain Rides
Transportation Authority



### Survey of Alternative Fuel Technologies for the Mountain Rides Transportation Authority System

**Compiled July 2019** 

**Prepared for** 

**Mountain Rides Transportation Authority** 

By

### **Fonnesbeck Electric Bus Solutions LLC**

Sandy, Oregon

## Alternative Fuel Technology Opportunity Assessment (AFTOA)

A survey of existing and available alternative fuel technologies Low or

No emission viable for Mountain Rides Transportation Authority to

transition from current diesel transit buses to the Alternative Fuel

Technology over the next 7-10 years

Prepared for the

Mountain Rides Transportation Authority 800 1<sup>st</sup> Ave North Ketchum, ID 83340 (208) 788-7433

Prepared by

Fonnesbeck Electric Bus Solutions LLC 19233 Oak Ave Sandy, OR 97055 (435) 901-0938

July 2019

#### Introduction

In 2017, 2018, and 2019 Mountain Rides Transit Authority (MRTA) has applied for the FTA Low No grant program created to support the development and use of Alternative Fuel Technology in Public Transportation applications to significantly reduce energy consumption or harmful emissions, including direct carbon emissions, when compared to a standard vehicle. It is important to note that each of these grant applications indicated that Battery Electric buses will be the technology used for these Federal dollars. Having been successful in receiving awards for the 2017 and 2018 applications (2019 has not been awarded by FTA at the time of this survey) MRTA enlisted the services of Fonnesbeck Electric Bus Solutions LLC (FEBS) through a competitive Request-For-Proposal process. In May 2019 FEBS was contracted to provide an Alternative Fuel Technology Opportunity Assessment (AFTOA) survey to inform decisions to transition and replace the current diesel transit fleet over the next 7-10 years. The contract also includes the Alternative Fuel Technology Recommendation (AFTR), and Alternative Fuel Technology Implementation Plan (AFTIP) documents which will be provided separately from this document.

In doing this survey it is noted that it will only address those Alternative fuel technologies recognized as Low or No emission consistent with the definition in the FTA Low No Grant program. Therefore, this survey will evaluate the following technologies:

- Compressed Natural Gas (CNG)
- Hydrogen Fuel Cell
- Battery Electric

All three of these technologies are available in what from the passenger standpoint would be a typical transit bus in both size and comfort. From an operational standpoint each technology has differences that will affect operational capacities and uses which will be discussed as part of this survey.

#### **Compressed Natural Gas (CNG)**

Compressed natural gas transit buses are very similar to their diesel counterparts in that they consist of a combustion engine that provides the power using CNG as the fuel. They became very popular as an alternative to diesel buses over the past 12 years due to two main factors; cost of fuel and reduced emissions vs a model year 2000 diesel bus. Much of the Data studies available for costing the conversion to a CNG fleet has been completed around the 2010 – 2013 years and has not been updated due to many agencies pushing towards newer alternative fuel

technologies that provide a much higher environmental and cost benefit. Therefore, cost numbers provided below and throughout this study for CNG are extrapolated percentages assuming the difference would remain approximately equal to diesel.

CNG buses compare in longevity and capital bus cost with a standard diesel bus with the CNG being approximately 16% more to purchase than a comparable diesel bus. The much larger capital costs that must be included are a CNG fueling facility, and specialized CNG maintenance facility. With fueling facility estimates from \$1.5 to \$2.0 Million and Maintenance Facility of \$1.0 to \$1.6 Million depending on land costs. These facilities in themselves will have annual operations and maintenance costs of approximately 5% of the up-front construction costs over diesel bus cost. CNG will have a similar range to current diesel buses and will be able to complete any of MRTA's daily current routes on a full tank.

#### **Hydrogen Fuel Cell**

Hydrogen Fuel Cell transit buses use the fuel cell to generate electricity that is then supplied to a 60 KW battery on the vehicle which in turn supplies electrical power to an electric motor for the drive train. The bus can be configured very similar to CNG and diesel buses and are also similar in range as well and will be able to complete any of MRTA's daily current routes on a full tank. This technology is still in the beginning stages with only approximately 33 buses in operation in the United States. The capital cost is very high currently with an estimated cost of \$1.2 Million per bus. Additional capital costs include a hydrogen fueling station that has an estimated installation cost of \$5.0 Million for a 25-bus facility. Hydrogen fuel is measured in Kilograms vs Gallons, an equivalent measurement for comparison of daily fuel costs would be liquid hydrogen at \$9 to \$10 per Kilogram would equal \$4 to \$5 per gallon of diesel.

#### **Battery Electric**

Battery Electric buses have large battery packs on board that store up to 660 KW of power that supplies an electric motor for the drive. They have several ways that they can be charged, such as overnight depot charging, on route high energy fast chargers, or a combination of both Battery electric buses can be configured very similar to a diesel bus. They have 30% fewer parts and conversely have fewer maintenance costs. Advancements in battery technology over the past 10 years have increased their range. They do not have a range that will equal any of the other technologies without incorporation of some combination of depot and on route fast charging to complete MRTA's current daily routes. The range can be affected by hot and cold temperatures due to the running of the HVAC system for winter heat and summer cooling.

The remaining portion of this survey is best represented through a series of tables with short descriptions:

#### **Capital Cost**

The capital costs to purchase each bus plus the startup costs to place those buses in operation is included in Table 1 below. It was calculated by figuring the total startup costs and then dividing that number by 20 buses as per the number of Diesel buses to be replaced by MRTA over the next 7-10 years. In some scenarios like CNG and Hydrogen the entire startup cost would need to be expended to implement the technology for the 1<sup>st</sup> bus. The Battery Electric has a more incremental cost based on 1 depot charger per bus and 1 fast charger.

Table 1:

Capital Cost	Cost/bus	Other Capital Description Cost/bus (Full Startup Cost based on 20 Buses)
CNG	\$550,000	CNG Fueling \$15,000 (\$3,600,000)
Hydrogen	\$1,200,000	Hydrogen Fueling \$21,000 (\$5,000,000)
Battery Electric	\$750,000	Charging Infrastructure (1 depot/bus + 1 fast charge) \$9,000 (\$80,000/bus +\$500,000 fast charge = \$2,400,000)

#### **Vehicle Performance Standards**

Vehicle range in miles per fuel fill or electrical charge plus the estimated miles per gallon equivalent as compared to diesel is shown in Table 2 below. It is important to note that these numbers are an average based on usage or manufacturer data.

Table 2:

Vehicle Performance Standards	Range Miles per Fill/Charge	MPG equivalent compared to Diesel
CNG	350 - 380	2.77
Hydrogen	277-357	7.5
Battery Electric	150 - 213	19.5

#### **Environmental Considerations**

In Table 3 below it shows the tailpipe emissions of each technology. Notice that No Measure (NM) is noted where no values were read.

Table 3:

Environmental Impact Emissions	NOx (g/ml)	CO (g/ml)	CO2 (g/ml)	PM (g/ml)
CNG	0.49	8.33	2072	NM
Hydrogen	NM	NM	NM	NM
<b>Battery Electric</b>	NM	NM	NM	NM

#### **Total Lifetime Cost Per Bus**

The total lifetime cost per bus shown below in Table 4 includes the original capital cost of the bus, lifetime fuel cost, estimated lifetime maintenance cost, and the total infrastructure cost based on 657,000 miles over a 12 year period.

Table 4:

Total Lifetime Cost of Ownership	Fuel Cost Assumption	Based on 150 miles/day 365 days per year for 12 years.
CNG	\$2.15/Gal.	\$1,811,616
Hydrogen	\$5.00/Gal.	\$2,255,920
Battery Electric	\$0.10/kWh	\$1,722,687

#### **Bus Vendors**

The bus vendors listed in Table 5 below are a representative list of the more common vendors that provide the Alternative Fuel Technologies in this survey. The CNG and Hydrogen fueling facilities are supported by different vendors. Most of the Battery Electric Vendors are also suppliers of the charging infrastructure.

Table 5:

<b>Bus Manufacturers</b>	CNG	Hydrogen	Battery Electric
Ballard		X	
BYD	Х		Х
Gillig	Х		Х
Gillig New Flyer	Х	X	Х
Proterra			Х

#### **Funding availability**

All three Alternative Fuel Technologies considered in this survey are eligible for Federal Funding under the Low No grant (5339c). The following caveats exist:

- All three of the Low No grants applied for by Mountain rides stipulate Battery Electric at an 85/15 Federal/Local share. The Low No funding would need to be used for purchase of Battery Electric buses and infrastructure.
- CNG is eligible for a Low No Grant application in the future but would be competing against many battery electric and hydrogen projects which would cause it to score much lower in a side by side ranking.
- Battery Electric buses have a leasing option that is allowed under the Low No grant stipulations. Battery leasing can be done to reduce up front capital costs by placing the leasing cost under you operations budget much like you would budget for annual fuel costs.

#### Conclusion

In reviewing the types of Alternate Fueling Technologies available to MRTA at the current time and viable for investment and Low No Grant funding in a fleet transition are CNG, Hydrogen Fuel Cell, and Battery Electric. While researching the various technologies some were more readily adoptable by MRTA than others. For instance, both the CNG and Hydrogen had very high up-front capital costs due to the need of installing a fueling station for the entire fleet even though the buses would be transitioned over a 7-10-year time frame. CNG's environmental impacts are of importance when compared to replacing a model year 2000 Diesel bus but significantly reduced as compared to a 2019 Clean Diesel bus. Hydrogen Fuel Cell buses are still in the development stages with only 33 in operation across the United States not to mention they are extremely expensive per bus and fueling infrastructure. Battery Electric have made the most strides over the past several years in matching the performance of a diesel bus regarding mileage and far surpassed regarding tailpipe emissions. Battery Electric can overcome the range challenge with additional investment into on-route fast charging infrastructure. This survey will be used to make the Alternative Fuel Recommendation to be provided to the MRTA Board during the July 17, 2019 meeting.

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#### **Appendix B**

#### Alternative Fuel Technology Recommendation (AFTR) for Mountain Rides Transportation Authority



### Alternative Fuel Technologies Recommendation for the Mountain Rides Transportation Authority System

**Compiled July 2019** 

**Prepared for** 

**Mountain Rides Transportation Authority** 

By

## Fonnesbeck Electric Bus Solutions LLC Sandy, Oregon

## Alternative Fuel Technology Recommendation (AFTR)

Recommendation of best alternative fuel technology Low or No
Emission viable for Mountain Rides Transportation Authority to
transition from current diesel transit buses to the Alternative Fuel
Technology over the next 7-10 years

Prepared for the

Mountain Rides Transportation Authority 800 1<sup>st</sup> Ave North Ketchum, ID 83340 (208) 788-7433

Prepared by

Fonnesbeck Electric Bus Solutions LLC 19233 Oak Ave Sandy, OR 97055 (435) 901-0938

July 2019

#### Introduction

In May 2019 Mountain Rides Transit Authority (MRTA) enlisted the services of Fonnesbeck Electric Bus Solutions LLC (FEBS) through a competitive Request-For-Proposal (RFP) process to provide an Alternative Fuel Technology Opportunity Assessment (AFTOA) survey to inform decisions to transition and replace the current diesel transit fleet over the next 7-10 years. A critical piece of the contract's scope of work is to provide a recommendation of which Alternative Fuel Technology MRTA should pursue based on the information obtained by the survey, system constraints and opportunities, estimated costs both of initial capital and lifetime cost, and environmental impacts. The recommendation needed to also address the Alternative Fuel Technology's compatibility with current and future awards for the FTA Low No grant program as well as other grant opportunities.

In June 2019 I performed a site-visit to Mountain Rides Transit Authority in which I spent time getting to know the system in order to understand what opportunities were available to Alternative Fuel Technology fleet transition. I was able to spend time with MRTA staff and the MRTA Board members to discuss the future of the transit system and toured the MRTA facilities and routes. Following the site-visit I researched the various Alternate Fuel Technologies that would be compatible with the definition of Low or No Emission in the FTA Low No Grant guidelines:

"FTA Low No grant program created to support the development and use of Alternative Fuel Technology in Public Transportation applications to significantly reduce energy consumption or harmful emissions, including direct carbon emissions, when compared to a standard vehicle".

The following three technologies met the criteria needed to satisfy the FTA guidelines and were covered in the Alternative Fuel Technology Opportunity Assessment (Survey):

- Compressed Natural Gas (CNG)
- Hydrogen Fuel Cell
- Battery Electric

All three of these technologies are available in what from the passenger standpoint would be a typical transit bus in both size and comfort. From an operational standpoint each technology has differences that will affect operational capacities and uses which will be discussed as part of this survey.

In 2017, 2018, and 2019 Mountain Rides Transit Authority (MRTA) applied for the FTA Low No Grant Program. It is important to note that each of these grant applications indicated that Battery Electric buses will be the technology used for these Federal dollars. Having been successful in receiving awards for the 2017 and 2018 applications (2019 has not been awarded by FTA at the time of this recommendation).

#### Recommendation

To make this recommendation of which Alternative Fuel Technology the MRTA Board and staff should adopt and move forward with transition of the MRTA fleet. The following factors were considered:

- Availability of Technology
- Technology Limitations/Service Changes or Adjustments
- Support Infrastructure needs (Cost, Training, Land Requirements, Facilities Upgrades)
- Maintenance Costs
- Capital Costs
- Operations Costs
- Environmental Impacts, including noise impacts
- Longevity
- FTA Low No Grant Guidelines

The site-visit along with the research of the AFTOA Survey lead Fonnesbeck Electric Bus Solutions to recommend that MRTA adopt "Battery Electric" as the most viable Alternative Fuel Technology based on the above factors as well as constraints of the MRTA system.

# Alternative Fuel Technology Opportunity Assessment (AFTOA) for Mountain Rides Transportation Authority



### Survey of Alternative Fuel Technologies for the Mountain Rides Transportation Authority System

**Compiled July 2019** 

**Prepared for** 

**Mountain Rides Transportation Authority** 

By

**Fonnesbeck Electric Bus Solutions LLC** 

Sandy, Oregon

## Alternative Fuel Technology Opportunity Assessment (AFTOA)

A survey of existing and available alternative fuel technologies Low or

No emission viable for Mountain Rides Transportation Authority to

transition from current diesel transit buses to the Alternative Fuel

Technology over the next 7-10 years

Prepared for the

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July 2019

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In doing this survey it is noted that it will only address those Alternative fuel technologies recognized as Low or No emission consistent with the definition in the FTA Low No Grant program. Therefore, this survey will evaluate the following technologies:

- Compressed Natural Gas (CNG)
- Hydrogen Fuel Cell
- Battery Electric

All three of these technologies are available in what from the passenger standpoint would be a typical transit bus in both size and comfort. From an operational standpoint each technology has differences that will affect operational capacities and uses which will be discussed as part of this survey.

#### **Compressed Natural Gas (CNG)**

Compressed natural gas transit buses are very similar to their diesel counterparts in that they consist of a combustion engine that provides the power using CNG as the fuel. They became very popular as an alternative to diesel buses over the past 12 years due to two main factors; cost of fuel and reduced emissions vs a model year 2000 diesel bus. Much of the Data studies available for costing the conversion to a CNG fleet has been completed around the 2010 – 2013 years and has not been updated due to many agencies pushing towards newer alternative fuel technologies that provide a much higher environmental and cost benefit. Therefore, cost numbers provided below and throughout this study for CNG are extrapolated percentages assuming the difference would remain approximately equal to diesel.

CNG buses compare in longevity and capital bus cost with a standard diesel bus with the CNG being approximately 16% more to purchase than a comparable diesel bus. The much larger capital costs that must be included are a CNG fueling facility, and specialized CNG maintenance facility. With fueling facility estimates from \$1.5 to \$2.0 Million and Maintenance Facility of \$1.0 to \$1.6 Million depending on land costs. These facilities in themselves will have annual operations and maintenance costs of approximately 5% of the up-front construction costs over diesel bus cost. CNG will have a similar range to current diesel buses and will be able to complete any of MRTA's daily current routes on a full tank.

### **Hydrogen Fuel Cell**

Hydrogen Fuel Cell transit buses use the fuel cell to generate electricity that is then supplied to a 60 KW battery on the vehicle which in turn supplies electrical power to an electric motor for the drive train. The bus can be configured very similar to CNG and diesel buses and are also similar in range as well and will be able to complete any of MRTA's daily current routes on a full tank. This technology is still in the beginning stages with only approximately 33 buses in operation in the United States. The capital cost is very high currently with an estimated cost of \$1.2 Million per bus. Additional capital costs include a hydrogen fueling station that has an estimated installation cost of \$5.0 Million for a 25-bus facility. Hydrogen fuel is measured in Kilograms vs Gallons, an equivalent measurement for comparison of daily fuel costs would be liquid hydrogen at \$9 to \$10 per Kilogram would equal \$4 to \$5 per gallon of diesel.

### **Battery Electric**

Battery Electric buses have large battery packs on board that store up to 660 KW of power that supplies an electric motor for the drive. They have several ways that they can be charged, such as overnight depot charging, on route high energy fast chargers, or a combination of both Battery electric buses can be configured very similar to a diesel bus. They have 30% fewer parts and conversely have fewer maintenance costs. Advancements in battery technology over the past 10 years have increased their range. They do not have a range that will equal any of the other technologies without incorporation of some combination of depot and on route fast charging to complete MRTA's current daily routes. The range can be affected by hot and cold temperatures due to the running of the HVAC system for winter heat and summer cooling.

The remaining portion of this survey is best represented through a series of tables with short descriptions:

### **Capital Cost**

The capital costs to purchase each bus plus the start up costs to place those buses in operation is included in Table 1 below. It was calculated by figuring the total start up costs and then dividing that number by 20 buses as per the number of Diesel buses to be replaced by MRTA over the next 7-10 years. In some scenarios like CNG and Hydrogen the entire start up cost

would need to be expended to implement the technology for the 1<sup>st</sup> bus. The Battery Electric has a more incremental cost based on 1 depot charger per bus and 1 fast charger.

Table 1:

Capital Cost	Cost/bus	Other Capital Description Cost/bus (Full Startup Cost based on 20 Buses)
CNG	\$550,000	CNG Fueling \$15,000 (\$3,600,000)
Hydrogen	\$1,200,000	Hydrogen Fueling \$21,000 (\$5,000,000)
Battery Electric	\$750,000	Charging Infrastructure (1 depot/bus + 1 fast charge) \$9,000 (\$80,000/bus +\$500,000 fast charge = \$2,400,000)

#### **Vehicle Performance Standards**

Vehicle range in miles per fuel fill or electrical charge plus the estimated miles per gallon equivalent as compared to diesel is shown in Table 2 below. It is important to note that these numbers are an average based on usage or manufacturer data.

Table 2:

<b>Vehicle Performance</b>	Range	MPG equivalent compared
Standards	Miles per Fill/Charge	to Diesel
CNG	350 - 380	2.77
Hydrogen	277-357	7.5
Battery Electric	150 - 213	19.5

#### **Environmental Considerations**

In Table 3 below it shows the tailpipe emissions of each technology. Notice that No Measure (NM) is noted where no values were read.

Table 3:

Environmental Impact Emissions	NOx (g/ml)	CO (g/ml)	CO2 (g/ml)	PM (g/ml)
CNG	0.49	8.33	2072	NM
Hydrogen	NM	NM	NM	NM
Battery Electric	NM	NM	NM	NM

#### **Total Lifetime Cost Per Bus**

The total lifetime cost per bus shown below in Table 4 includes the original capital cost of the bus, lifetime fuel cost, estimated lifetime maintenance cost, and the total infrastructure cost based on 657,000 miles over a 12 year period.

Table 4:

Total Lifetime Cost of Ownership	Fuel Cost Assumption	Based on 150 miles/day 365 days per year for 12 years.
CNG	\$2.15/Gal.	\$1,811,616
Hydrogen	\$5.00/Gal.	\$2,255,920
Battery Electric	\$0.10/kWh	\$1,722,687

#### **Bus Vendors**

The bus vendors listed in Table 5 below are a representative list of the more common vendors that provide the Alternative Fuel Technologies in this survey. The CNG and Hydrogen fueling facilities are supported by different vendors. Most of the Battery Electric Vendors are also suppliers of the charging infrastructure.

Table 5:

<b>Bus Manufacturers</b>	CNG	Hydrogen	Battery Electric
Ballard		Х	
BYD	X		Х
Gillig	Х		X
New Flyer	х	Х	X
Proterra			Х

### **Funding availability**

All three Alternative Fuel Technologies considered in this survey are eligible for Federal Funding under the Low No grant (5339c). The following caveats exist:

- All three of the Low No grants applied for by Mountain rides stipulate Battery Electric at an 85/15 Federal/Local share. The Low No funding would need to be used for purchase of Battery Electric buses and infrastructure.
- CNG is eligible for a Low No Grant application in the future but would be competing
  against many battery electric and hydrogen projects which would cause it to score much
  lower in a side by side ranking.

 Battery Electric buses have a leasing option that is allowed under the Low No grant stipulations. Battery leasing can be done to reduce up front capital costs by placing the leasing cost under you operations budget much like you would budget for annual fuel costs.

#### Conclusion

In reviewing the types of Alternate Fueling Technologies available to MRTA at the current time and viable for investment and Low No Grant funding in a fleet transition are CNG, Hydrogen Fuel Cell, and Battery Electric. While researching the various technologies some were more readily adoptable by MRTA than others. For instance, both the CNG and Hydrogen had very high up-front capital costs due to the need of installing a fueling station for the entire fleet even though the buses would be transitioned over a 7-10-year time frame. CNG's environmental impacts are of importance when compared to replacing a model year 2000 Diesel bus but significantly reduced as compared to a 2019 Clean Diesel bus. Hydrogen Fuel Cell buses are still in the development stages with only 33 in operation across the United States not to mention they are extremely expensive per bus and fueling infrastructure. Battery Electric have made the most strides over the past several years in matching the performance of a diesel bus regarding mileage and far surpassed regarding tailpipe emissions. Battery Electric can overcome the range challenge with additional investment into on-route fast charging infrastructure. This survey will be used to make the Alternative Fuel Recommendation to be provided to the MRTA Board during the July 17, 2019 meeting.

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# AMENDED BYLAWS OF THE MOUNTAIN RIDES TRANSPORTATION AUTHORITY

**OCTOBER 16, 2019** 

#### **ARTICLE ONE: ORGANIZATION**

This organization was originally created by the AGREEMENT FOR THE FORMATION OF THE KETCHUM-SUN VALLEY PUBLIC TRANSIT AUTHORITY ("Authority"), dated June 5, 1989, by and between the cities of Ketchum and Sun Valley, Idaho. A Joint Powers Agreement dated January 17, 2006 expanded the Authority to include Ketchum, Sun Valley, Hailey, Bellevue, Carey and Blaine County provided that each of these entities elected to execute said Joint Powers Agreement. The Joint Powers Agreement was subsequently amended and restated.

#### **ARTICLE TWO: PURPOSE**

The purpose of the Authority is to establish, implement, maintain, fund and operate a comprehensive multimodal transportation system by, without limitation, buses, fixed route conveyances (such as light rail and gondolas), special needs transportation (ADA), vans, carpools, bicycles, pedestrain facilities or other appropriate means on scheduled or unscheduled service throughout Blaine County and surrounding communities for the benefit of the residents, workers, and visitors traveling within and to and from Blaine County. In furtherance of that purpose, the Authority shall have the following powers:

- (a) As a separate legal entity under state and federal statutes, to apply for, receive and operate under financial assistance from the federal or state government, and from any agency or political subdivision thereof, or from any private sources:
- (b) To acquire by purchase, gift, lease, sublease or otherwise, to the extent and in the manner that a city or county operating under the laws of the State of Idaho might do so, real or personal property necessary for the establishment, operation and maintenance of a public transportation system including but not limited to land and easement acquisitions, facilities, employee housing and rolling stock;
- (c) To fund operational and maintenance costs of operating a comprehensive multimodal transportation system;
- (d) To contract with public or private agencies, companies or entities for the provision of multimodal transportation services or for expansion of a multimodal transportation system in Blaine County and surrounding communities;

- (e) To undertake or contract for studies relating to the multimodal transportation needs of Blaine County and surrounding communities, and the methods by which said needs can best be served; and
- (f) To participate in, influence and support regional transportation plans, and economic development and land use proposals as they relate to transportation, as from time to time they may be proposed, adopted and amended.

#### ARTICLE THREE: VISION, MISSION AND GOALS

The Authority may adopt and update a Vision, Mission, Statement of Purpose, and Goals statement, from time to time, in order to convey a sense of purpose to the Authority's staff, stakeholders, and the public at-large. In general, the Vision, Mission, Statement of Purpose and Goals statement shall be consistent with Article Two above.

#### ARTICLE FOUR: BOARD OF DIRECTORS AND COMMITTEES

The Authority shall be managed by a Board of Directors ("Board"). The Board shall consist of the appointed representatives of each participating city, Blaine County and a "Member-at Large" (a routine user or advocate of the multimodal transportation services offered by the Authority). The Board shall elect the officers provided for herein every one (1) year. The Board shall meet monthly at a site duly noticed by the Board. The Board shall determine and assure that the qualifications for membership and for voting shall be in accordance with the Amended Authority Agreement.

The term of office for Board members shall be as set forth in the "Amended Authority Agreement" dated October 1, 2007.

The Board Chair (or Vice-Chair in absence of the Chair) may designate a subset of the Board members to constitute a committee to focus on policy for a particular aspect of the Authority's operations (e.g., planning and marketing, finance and performance, Executive Director review etc). Each committee shall have one or more members, who serve at the pleasure of the Board. Members of the community that are not on the Board may serve on a committee, however without voting rights during the regular full Board meetings. The designation of such committees and the delegation to it of authority shall not operate to relieve the Board, or any member of it, or any responsibility imposed by law.

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- two (2) representatives appointed by the City of Sun Valley,
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Any city, or the county, may send additional representatives to any Authority meeting as non-voting ex-officio members. The Board may also include one (1) member to be appointed by the Mayor of Carey as determined by the Board, if the City of Carey becomes a signator of the Joint Powers Agreement.

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These bylaws may be amended by the affirmative vote of the majority of the Board at any duly noticed meeting of the Board. No amendment to these bylaws shall be inconsistent with or replace the provisions of the most recent Joint Powers Agreement referenced in Article One, above.

#### ARTICLE ELEVEN: EFFECTIVE DATE

These byl day of		m and after the approval and adoption of the Board on this 20
		, Chair
		MOUNTAIN RIDES TRANSPORTATION AUTHORITY
Attest:		
 Director	 , Secretary	

# AMENDED BYLAWS OF THE MOUNTAIN RIDES TRANSPORTATION AUTHORITY

JULY 20, 201	6	, 2019
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#### ARTICLE ELEVEN: EFFECTIVE DATE

l nese bylaws s	nall take effect from and after the approval and adoption of the Board (, 20,
Attest:	Director David Patrie, Chair MOUNTAIN RIDES TRANSPORTATION AUTHORITY
Director <del>Joe Miczulski</del> _	 , Secretary

Route	FY18	FY19	Y-o-Y (	Change
Blue	208,840	214,100	+ 5,260	+ 3%
Valley	169,601	178,578	+ 8,977	+ 5%
Hailey	26,182	33,037	+ 6,855	+ 26%
Red	13,207	15,309	+ 2,102	+ 16%
Bronze	5,236	14,622	+ 9,386	+ 179%
Silver (Silver 2)	33,899	45,897	+11,998	+ 35%
Gold (Silver 1)	44,317	40,574	- 3,743	- 8%
Galena	830	898	+ 68	+ 8%
Total	502,112	543,015	+40,903	+ 8%

_	Octo	ber	Nove	mber	Dece	mber	FY	Q1
Route	FY18	FY19	FY18	FY19	FY18	FY19	FY18	FY19
Blue	5,801	6,766	6,258	7,385	23,340	27,216	35,399	41,367
Valley	14,922	15,071	12,725	13,300	12,892	13,611	40,539	41,982
Hailey	3,258	3,517	2,571	2,814	1,759	2,221	7,588	8,552
Red	- 1	-	342	584	2,260	2,954	2,602	3,538
Bronze	-	-	-	-	714	2,250	714	2,250
Silver (Silver 2)	-	-	1,031	2,613	14,943	10,064	15,974	12,677
Gold (Silver 1)	-	-	-	-	-	7,089	-	7,089
Galena	-	-	-	4	181	243	181	247
Total	23,981	25,354	22,927	26,700	56,089	65,648	102,997	117,702
Year-over-Year		+ 6%		+ 16%		+ 17%		+ 14%

	Janu	ıary	Febr	uary	Mai	ch	FY	Q2
Route	FY18	FY19	FY18	FY19	FY18	FY19	FY18	FY19
Blue	27,787	29,287	25,816	28,351	31,108	29,113	84,711	86,751
Valley	15,454	15,531	14,321	14,583	14,095	15,102	43,870	45,216
Hailey	2,987	2,755	2,794	2,465	2,371	2,585	8,152	7,805
Red	3,035	3,669	3,332	3,958	3,267	3,519	9,634	11,146
Bronze	1,243	3,137	1,343	3,767	1,904	3,823	4,490	10,727
Silver (Silver 2)	20,642	10,410	(14,088)	10,470	10,326	10,754	16,880	31,634
Gold (Silver 1)	-	10,368	31,751	11,837	11,268	11,280	43,019	33,485
Galena	396	372	253	168	-	111	649	651
Total	71,544	75,529	65,522	75,599	74,339	76,287	211,405	227,415
Year-over-Year		+ 6%		+ 15%		+ 3%		+ 8%

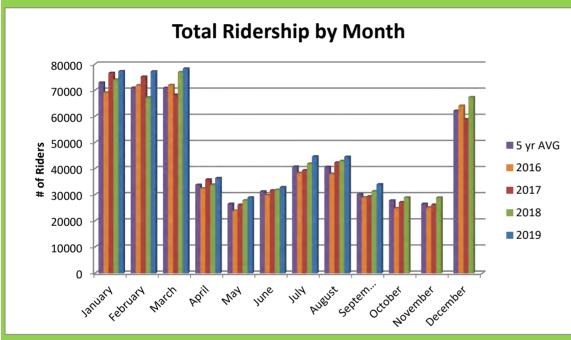
	Ap	ril	Ma	ay	Jui	ne	FY	Q3
Route	FY18	FY19	FY18	FY19	FY18	FY19	FY18	FY19
Blue	11,734	12,749	6,571	6,818	13,560	13,367	31,865	32,934
Valley	14,491	14,856	15,071	15,019	13,421	13,740	42,983	43,615
Hailey	2,324	2,680	2,555	3,189	1,220	1,817	6,099	7,686
Red	430	460	-	-	27	-	457	460
Bronze	32	1,645	-	-	-	-	32	1,645
Silver (Silver 2)	1,045	1,586	-	-	-	-	1,045	1,586
Gold (Silver 1)	1,298	-	-	-	-	-	1,298	-
Galena		-	-	-	-	-	-	-
Total	31,354	33,976	24,197	25,026	28,228	28,924	83,779	87,926
Year-over-Year		+ 8%		+ 3%		+ 2%		+ 5%

	Ju	ly	Aug	ust	Sep	-19	FY	Q4
Route	FY18	FY19	FY18	FY19	FY18	FY19	FY18	FY19
Blue	23,095	21,917	22,526	20,969	11,244	10,162	56,865	53,048
Valley	13,416	15,116	14,894	16,120	13,899	16,529	42,209	47,765
Hailey	879	2,678	1,076	2,947	2,388	3,369	4,343	8,994
Red	181	-	294	165	39	-	514	165
Bronze	-	-	-	-	-	-	-	-
Silver (Silver 2)	-	-	-	-	-	-	-	-
Gold (Silver 1)	-	-	-	-	-	-	-	-
Galena		-	-	-	-	-	-	-
Total	37,571	39,711	38,790	40,201	27,570	30,060	103,931	109,972
Year-over-Year		+ 6%		+ 4%	50	+ 9%		+ 6%

## PERFORMANCE DASHBOARD - RIDERSHIP, SEPTEMBER 2019

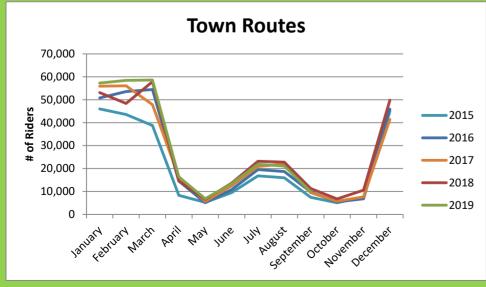


<u>Definition:</u> One way rides for the month divided by the number of bus revenue service hours for the month (aka productivity) - being higher than goal is good. 15 is reasonable goal for a resort-rural fixed route system.

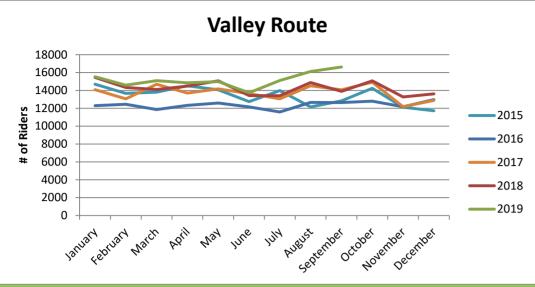


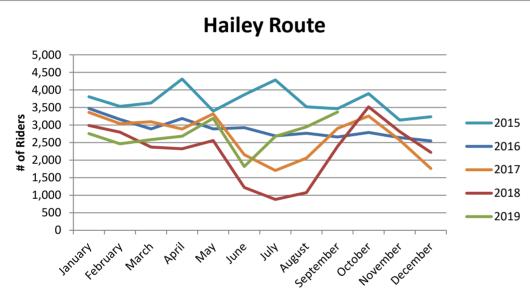
2019 YTD Ridership 457806 2018 YTD Ridership 431858 2017 YTD Ridership 425507 2016 YTD Ridership 404899 2015 YTD Ridership 379182

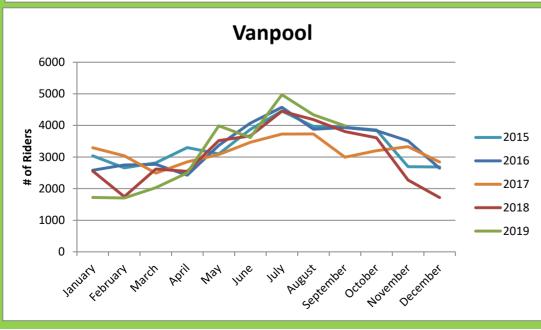
Definition: Monthly ridership compared with one year ago, two years ago and the 5 year average.



## PERFORMANCE DASHBOARD - RIDERSHIP BY ROUTE, SEPTEMBER 2019



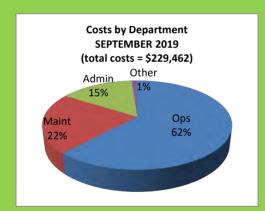


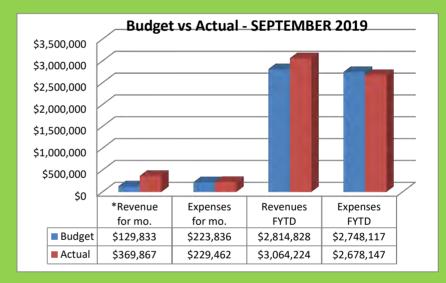


## **PERFORMANCE DASHBOARD - FINANCIAL, SEPTEMBER 2019**



<u>Definition:</u> Monthly costs divided by the number of bus revenue service hours operated for the month. Being lower than goal is good. Monthly numbers are compared to 6 and 12 month averages in order to give a longer time period for reference (monthly fluctuations can be great).





#### \*Revenues reflect budgeted amounts



Definition: Costs for services are taken in total for the month and then divided by the mileage operated for the month. Costs are also calculated for each department to show the contribution to costs per mile. The budget is established based on historical averages and what is reasonable on a statewide basis for a rural fixed route system.

# **PERFORMANCE DASHBOARD - SAFETY, SEPTEMBER 2019**



<u>Definition:</u> This is the rate at which these safety related items are happening at a rate that is consistent with industry

Safety	Jul-19	Aug-19	Sep-19
Incidents	0	0	1
Accidents	0	0	0
Road Calls	0	0	0

<u>Incident</u> is defined as an event that involved a minor collision, injury or altercation that may have caused physical damage or injury (less than \$200) to MRTA property or persons only. No outside parties involved.

Accident is defined as an event that caused damage to one or more MR vehicles or property in excess of \$200 OR damage to vehicles, property or persons unrelated to MRTA in any amount.

<u>Road Call</u> is defined as a vehicle that is taken out of revenue service because of a need for unscheduled maintenance.

MAINTENANCE DAYS WITHOUT A LOSS TIME ACCIDENT OR INJURY: Current

139

Includes September
Previous record 1996 days

# MRTA - Operations Main Revenue & Expenditures Budget Performance August 2019

**Accrual Basis** 

	Aug 19	Budget	% of Budget	Oct '18 - Aug 19	YTD Budget	% of Budget	Annual Budget
Ordinary Income/Expense							
Income							
41000 · Federal Funding							
41200 · Federal - 5311 41600 · Federal - SRTS	231,794.00 0.00	0.00 3,000.00	100.0% 0.0%	1,483,258.00 21,824.22	1,268,065.00 18,500.00	117.0% 118.0%	1,268,065.00 21,000.00
41800 · Federal - SK1S 41800 · Federal - RTAP	1,186.97	1,000.00	118.7%	19,730.57	19,000.00	103.8%	20,000.00
Total 41000 · Federal Funding	232,980.97	4,000.00	5,824.5%	1,524,812.79	1,305,565.00	116.8%	1,309,065.00
43000 · Local Funding							
43100 · Local - Ketchum	44,380.00	44,380.00	100.0%	488,180.00	488,180.00	100.0%	532,560.00
43200 · Local - Hailey	5,250.00	5,250.00	100.0%	57,750.00	57,750.00	100.0%	63,000.00
43300 · Local - Bellevue	0.00	0.00	0.0%	4,515.25	4,515.00	100.0%	4,515.00
43400 · Local - Blaine County	9,782.49	9,782.50	100.0%	107,607.61	107,607.50	100.0%	117,390.00
43500 · Local - Sun Valley 43600 · Local - Sun Valley Company	21,490.00 0.00	21,490.00 0.00	100.0% 0.0%	236,390.00 159,600.00	236,390.00 159,600.00	100.0% 100.0%	257,880.00 159,600.00
43700 · Local - Other Business	0.00	0.00	0.0%	19,300.00	15,000.00	128.7%	15,000.00
Total 43000 · Local Funding	80,902.49	80,902.50	100.0%	1,073,342.86	1,069,042.50	100.4%	1,149,945.00
44000 · Fares							
44100 · Fares - Valley Cash	6,233.12	6,250.00	99.7%	58,714.68	68,750.00	85.4%	75,000.00
44200 · Fares - Valley Passes	17,948.75	14,000.00	128.2%	127,659.54	118,000.00	108.2%	132,000.00
44250 · Fares- Hailey Route- Cash	0.00	450.00	0.0%	5,928.46	5,050.00	117.4%	5,500.00
44300 · Fares - Vanpool 44400 · Fares - ADA	18,892.64 16.00	16,000.00 0.00	118.1% 100.0%	151,880.01 200.00	142,000.00 0.00	107.0% 100.0%	158,000.00 0.00
44500 · Fares - ADA 44500 · Fares- Galena Service	0.00	0.00	0.0%	3,819.95	7,000.00	54.6%	7,000.00
Total 44000 · Fares	43,090.51	36,700.00	117.4%	348,202.64	340,800.00	102.2%	377,500.00
45000 · Revenue							
45100 · Rev - Advertising	2,125.00	1,650.00	128.8%	73,450.00	68,000.00	108.0%	70,000.00
45450 · Rev - Misc.	0.00			1,125.00	0.00	100.0%	0.00
45500 · Rev - Charter/Special Event	8,982.50	5,000.00	179.7%	23,111.90	15,000.00	154.1%	15,000.00
45600 · Rev - Bike Share- Bike Swap	0.00	250.00	0.0%	0.00	750.00	0.0%	1,000.00
Total 45000 · Revenue	11,107.50	6,900.00	161.0%	97,686.90	83,750.00	116.6%	86,000.00
47000 · Private Donations 47100 · Priv. Donation - Foundations	0.00	0.00	0.0%	2,350.00	1,000.00	235.0%	1,000.00
Total 47000 · Private Donations	0.00	0.00	0.0%	2,350.00	1,000.00	235.0%	1,000.00
48000 · Transfers							
48400 · Transfer - Housing Fund	1,250.00	1,250.00	100.0%	13,750.00	13,750.00	100.0%	15,000.00
Total 48000 · Transfers	1,250.00	1,250.00	100.0%	13,750.00	13,750.00	100.0%	15,000.00
49000 · Interest Income	535.66	80.00	669.6%	4,078.23	920.00	443.3%	1,000.00
49600 · Misc. Income	0.00			1.43			
49800 · Excess Operating Funds	0.00	0.00	0.0%	0.00	0.00	0.0%	45,000.00
49810 · Returned Check Charges	0.00	0.00	0.0%	0.00	0.00	0.0%	0.00
Total Income	369,867.13	129,832.50	284.9%	3,064,224.85	2,814,827.50	108.9%	2,984,510.00
Gross Profit	369,867.13	129,832.50	284.9%	3,064,224.85	2,814,827.50	108.9%	2,984,510.00

# MRTA - Operations Main Revenue & Expenditures Budget Performance August 2019

A	-1 D	:
Accru	ai d	ası

	Aug 19	Budget	% of Budget	Oct '18 - Aug 19	YTD Budget	% of Budget	Annual Budget
-			,, or budget				Aimaai Daaget
xpense 51000 · Payroll Expenses							
51100 · Salaries and Wages	108,910.74	115,000.00	94.7%	1,439,132.87	1,435,000.00	100.3%	1,550,000.00
51300 · FICA Expense	6,499.04	6,900.00	94.2%	86,049.87	86,100.00	99.9%	93,000.00
51350 · Medicare Tax Expense	1,519.92	1,610.00	94.4%	20,124.55	20,090.00	100.2%	21,700.00
51400 · Retirement Plan Expenses	32,363.09	0.00	100.0%	95,627.38	90,000.00	106.3%	120,000.00
51500 · Workers Comp Expense	12,568.00	15,000.00	83.8%	43,521.00	60,000.00	72.5%	60,000.00
51600 · SUI Expense	545.10	805.00	67.7%	7,836.50	10,045.00	78.0%	10,850.00
51700 · Medical Ins. Expense	22,741.60	22,666.00	100.3%	244,138.60	249,326.00	97.9%	272,000.00
51950 · Employee Performance Bonus	0.00	0.00	0.0%	4,435.00	6,000.00	73.9%	6,000.00
51000 · Payroll Expenses - Other	57.75	165.00	35.0%	1,552.25	1,815.00	85.5%	2,000.00
Total 51000 · Payroll Expenses	185,205.24	162,146.00	114.2%	1,942,418.02	1,958,376.00	99.2%	2,135,550.
52000 · Insurance Expense	40 400 50	0.400.50	407.40/	444 504 50	400 004 50	407.40/	440.074.00
52100 · Ins Vehicles	10,139.50	9,439.50	107.4%	111,534.50	103,834.50	107.4%	113,274.00
52150 · Ins- Deductibles/claims	-770.01	400.00	-192.5%	-3,975.89	4,600.00	-86.4%	5,000.00
Total 52000 · Insurance Expense	9,369.49	9,839.50	95.2%	107,558.61	108,434.50	99.2%	118,274.
53000 · Professional Fees	4 000 00	4 000 00	100.0%	00.045.00	04 000 00	98.3%	00.000.00
53100 · Accounting & Audit	1,000.00	1,000.00	100.0% 18.1%	20,645.00	21,000.00		22,000.00
53200 · IT Systems 53400 · Legal Fees	72.50 420.00	400.00 300.00	18.1%	1,196.25 2,040.00	4,600.00 3,300.00	26.0% 61.8%	5,000.00 3,500.00
53450 · Planning/ Design	0.00	300.00	140.0%	0.00	0.00	0.0%	0.00
53475 · Medical	255.00	200.00	127.5%	3,669.00	3,000.00	122.3%	3,200.00
53500 · Other Professional Fees	0.00	400.00	0.0%	2,847.58	4,400.00	64.7%	4,800.00
Total 53000 · Professional Fees	1,747.50	2,300.00	76.0%	30,397.83	36,300.00	83.7%	38,500.
54000 · Equipment/ Tool Expense							
54100 · Shop Equipment/ Tools	29.66	500.00	5.9%	1,925.19	5,500.00	35.0%	6,000.00
54300 · Office Equipment	0.00	300.00	0.0%	797.30	3,300.00	24.2%	3,500.00
Total 54000 · Equipment/ Tool Expense	29.66	800.00	3.7%	2,722.49	8,800.00	30.9%	9,500.0
55000 · Rent and Utilities 55200 · Utilities	1,037.78	1,300.00	79.8%	19,255.43	20,700.00	93.0%	22,000.00
Total 55000 · Rent and Utilities	1.037.78	1,300.00	79.8%	19.255.43	20.700.00	93.0%	22.000.0
	1,007.70	1,300.00	13.070	10,255.45	20,700.00	33.070	22,000.
56000 · Supplies 56200 · Janitorial & Safety Supplies	513.63	660.00	77.8%	8,747.71	7,340.00	119.2%	8,000.00
56300 · Department & Office Supplies	275.64	400.00	68.9%	2,479.46	4,400.00	56.4%	5,000.00
56400 · Uniforms	187.70	200.00	93.9%	6,598.82	7,800.00	84.6%	8,000.00
56500 · Postage and Delivery	123.76	70.00	176.8%	942.61	770.00	122.4%	800.00
Total 56000 · Supplies	1,100.73	1,330.00	82.8%	18,768.60	20,310.00	92.4%	21,800.
57000 · Repairs and Maintenance							
57100 · Equipment Repairs/Maintenance	0.00	160.00	0.0%	260.66	1,760.00	14.8%	2,000.00
57200 · Building Repairs/Maintenance	60.56	500.00	12.1%	9,049.68	11,500.00	78.7%	12,000.00
57250 · Bus Stop Repairs/Maint	870.13	100.00	870.1%	7,633.10	3,400.00	224.5%	3,500.00
57300 · Grounds Repairs/Maintenance	0.00	500.00	0.0%	5,709.89	6,500.00	87.8%	7,000.00
57400 · Bike Share Repairs/Maintenance 57500 · Janitorial Services	0.00 372.00	100.00 400.00	0.0% 93.0%	0.00 8,012.42	500.00 5,600.00	0.0% 143.1%	500.00 6,000.00
-	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	
Total 57000 · Repairs and Maintenance	1,302.69	1,760.00	74.0%	30,665.75	29,260.00	104.8%	31,000.
58000 · Communications Expense 58100 · Office Phone Expense	321.87	375.00	85.8%	3,592.90	4,125.00	87.1%	4,500.00
58200 · Cell & Two-Way Mobile	958.55	1,215.00	78.9%	11,032.45	13,365.00	82.5%	14,600.00
	323.44	330.00	98.0%	3.182.44	3.670.00	86.7%	4.000.00
583UU · Internet/Website				0,104.77	0,010.00	00.1 /0	T,000.00
58300 · Internet/Website 58400 · On-Board Vehicle Computers	0.00	0.00	0.0%	15,245.59	18,000.00	84.7%	18,000.00

**Accrual Basis** 

# MRTA - Operations Main Revenue & Expenditures Budget Performance August 2019

	Aug 19	Budget	% of Budget	Oct '18 - Aug 19	YTD Budget	% of Budget	Annual Budget
59000 · Travel and Training 59100 · Vehicle/Airfare 59200 · Lodging 59300 · Food/Meals/Entertainment 59400 · Training/Education 59500 · Safety Curriculum	1,108.63 637.32 211.75 590.00 0.00	550.00 400.00 300.00 800.00 0.00	201.6% 159.3% 70.6% 73.8% 0.0%	7,095.19 7,646.64 2,720.65 5,498.68 373.58	6,050.00 4,400.00 3,300.00 8,800.00 500.00	117.3% 173.8% 82.4% 62.5% 74.7%	6,600.00 5,000.00 3,600.00 9,500.00 500.00
Total 59000 · Travel and Training	2,547.70	2,050.00	124.3%	23,334.74	23,050.00	101.2%	25,200.00
60000 · Business Expenses 60100 · Vehicle Registration Fees 60400 · Membership,Dues & Subscriptions 60500 · Bank Fees 60700 · Bad Debt	0.00 1,839.50 88.84 0.00	50.00 300.00 40.00 0.00	0.0% 613.2% 222.1% 0.0%	253.00 12,815.31 346.12 1,100.00	650.00 5,000.00 440.00 0.00	38.9% 256.3% 78.7% 100.0%	700.00 5,250.00 500.00 0.00
Total 60000 · Business Expenses	1,928.34	390.00	494.4%	14,514.43	6,090.00	238.3%	6,450.00
61000 · Advertising 61100 · Print Advertising 61200 · Radio Advertising 61300 · Online Advertising 61400 · Vehicle Graphics 61500 · Bus Adv. Contract	773.97 0.00 189.62 0.00 450.01	700.00 0.00 0.00 550.00	110.6% 0.0% 100.0% 0.0%	10,255.38 870.00 1,180.15 901.00 859.74	12,300.00 2,000.00 1,500.00 6,050.00	83.4% 43.5% 78.7% 14.9%	13,000.00 2,000.00 1,500.00 7,000.00
Total 61000 · Advertising	1,413.60	1,250.00	113.1%	14,066.27	21,850.00	64.4%	23,500.00
62000 · Marketing and Promotion 62100 · Info. Displays-Stop Signage 62200 · Graphic Design 62300 · Promotional Items 62400 · Customer Events and Misc. 62500 · Staff Appreciation/ Events 62000 · Marketing and Promotion - Other	76.00 213.75 0.00 0.00 332.13 23.75	500.00 0.00 100.00 100.00 100.00	15.2% 100.0% 0.0% 0.0% 332.1%	2,170.86 6,917.25 4,844.08 661.00 4,323.50 23.75	5,500.00 7,000.00 1,000.00 1,136.00 4,600.00	39.5% 98.8% 484.4% 58.2% 94.0%	6,000.00 7,000.00 1,000.00 1,136.00 5,000.00
Total 62000 · Marketing and Promotion	645.63	800.00	80.7%	18,940.44	19,236.00	98.5%	20,136.00
63000 · Printing and Reproduction 63100 · Copies, Passes & Flyers 63200 · Schedules, Maps & Brochures	252.02 0.00	100.00 0.00	252.0% 0.0%	2,443.58 10,283.95	3,400.00 10,000.00	71.9% 102.8%	3,500.00 10,000.00
Total 63000 · Printing and Reproduction	252.02	100.00	252.0%	12,727.53	13,400.00	95.0%	13,500.00
64000 · Fuel Expense 65000 · Vehicle Maintenance 65100 · Parts Expense	8,513.93	25,500.00	33.4%	229,922.01	278,500.00	82.6%	300,000.00
65150 · Vehicle Maintenance- freight 65100 · Parts Expense - Other	0.00 8,165.58	200.00 8,000.00	0.0% 102.1%	880.04 103,157.93	2,200.00 92,000.00	40.0% 112.1%	2,500.00 100,000.00
Total 65100 · Parts Expense	8,165.58	8,200.00	99.6%	104,037.97	94,200.00	110.4%	102,500.00
65200 · Fluids Expense 65300 · Tires Expense 65400 · Purchased Services 65500 · Vehicle Computer/Diagnostic 65500 · Vehicle Glass/Windshield Repai 65700 · Shop Supplies	1,702.32 836.72 1,939.86 0.00 0.00 116.11	1,600.00 1,500.00 0.00 300.00 450.00 300.00	106.4% 55.8% 100.0% 0.0% 0.0% 38.7%	17,033.89 33,267.33 18,431.50 1,744.78 2,147.52 3,135.91	17,400.00 36,500.00 5,000.00 3,300.00 4,950.00 3,300.00	97.9% 91.1% 368.6% 52.9% 43.4% 95.0%	19,000.00 38,000.00 5,000.00 4,000.00 5,500.00 4,000.00
Total 65000 · Vehicle Maintenance	12,760.59	12,350.00	103.3%	179,798.90	164,650.00	109.2%	178,000.00
69500 · Contribution to Fund Balance	0.00	0.00	0.0%	0.00	0.00	0.0%	0.00
Total Expense	229,458.76	223,835.50	102.5%	2,678,144.43	2,748,116.50	97.5%	2,984,510.00
rdinary Income	140,408.37	-94,003.00	-149.4%	386,080.42	66,711.00	578.7%	0.00
me	140,408.37	-94,003.00	-149.4%	386,080.42	66,711.00	578.7%	0.00

### MRTA - Operations Main Checks Issued

As of August 31, 2019

Туре	Date	Num	Name	Memo	Amount	Balance
11100 · Mountain West C	Checking					142,008.63
Check	08/01/2019	8840	III-A Trust	Billing Period 08/01/2019 - 08/31/2019 Health Ins	-27,012.00	114,996.63
Deposit	08/02/2019			Deposit	748.95	115,745.58
Bill Pmt -Check	08/05/2019	ACH	Idaho Power Acct#2221850114	Acct #2221850114	-157.87	115,587.71
Liability Check Bill Pmt -Check	08/05/2019 08/05/2019	ACH 8849	Idaho State Tax Commission Rush Truck Centers	000186434 R567941	-3,340.00 -847.90	112,247.71 111,399.81
Bill Pmt -Check	08/05/2019	8850	Napa Auto Parts	3752	-1,348.96	110,050.85
Bill Pmt -Check	08/05/2019	8851	Cummins Rocky Mountain LLC		-503.46	109,547.39
Bill Pmt -Check	08/05/2019	8852	Hawley Graphics, Inc.		-102.00	109,445.39
Bill Pmt -Check	08/05/2019	8853	Jackson Group Peterbilt	3551	-688.81	108,756.58
Bill Pmt -Check Bill Pmt -Check	08/05/2019 08/05/2019	8854 8855	Kimberly L Richmond Les Schwab	7/16/19 - 7/31/19 117-00888	-400.00 -770.84	108,356.58 107,585.74
Bill Pmt -Check	08/05/2019	8856	Red Hawk Plumbing LLC	117-00000	-60.56	107,525.18
Bill Pmt -Check	08/05/2019	8857	Six Roblees' Inc.	64830	-88.36	107,436.82
Bill Pmt -Check	08/05/2019	8858	The Aftermarket Parts Company,		-40.72	107,396.10
Bill Pmt -Check	08/05/2019	8859	United Oil	38068	-12,553.11	94,842.99
Bill Pmt -Check Liability Check	08/05/2019 08/06/2019	8860 E-pay	Window Welder Inc United States Treasury	82-0382250 QB Tracking # 882524030	-270.00 -12,613.72	94,572.99 81,959.27
Bill Pmt -Check	08/06/2019	ACH	CenturyLink	208-726-1690 623B	-39.15	81,920.12
Bill Pmt -Check	08/06/2019	ACH	Intermtn Gas #450 916 6521 1	Acct # 45091665211	-11.36	81,908.76
Bill Pmt -Check	08/06/2019	ACH	Intermtn Gas Co #826 580 3000 0	#826 580 3000 0	-28.26	81,880.50
Bill Pmt -Check	08/06/2019	8864	AmeriBen Solutions/IEC Group		-170.00	81,710.50
Bill Pmt -Check Bill Pmt -Check	08/06/2019 08/06/2019	8865 8866	Atkinsons' Grocery Business As Usual		-19.91 -125.50	81,690.59 81,565.09
Bill Pmt -Check	08/06/2019	8867	Certified Folder Display Service, Inc	14-0086946	-76.00	81,489.09
Bill Pmt -Check	08/06/2019	8868	City of Bellevue'	RIDES1- 121 Clover St	-118.05	81,371.04
Bill Pmt -Check	08/06/2019	8869	Clear Creek Disposal	1327	-98.08	81,272.96
Bill Pmt -Check	08/06/2019	8870	Clear Mind Graphics, Inc		-380.00	80,892.96
Bill Pmt -Check Bill Pmt -Check	08/06/2019	8871	CTAA	Member #2123618 Annual Dues	-1,150.00	79,742.96
Bill Pmt -Check	08/06/2019 08/06/2019	8872 8873	Express Publishing Inc. Gem State Welders Supply Inc	MOUNTB 0	-276.35 -8.06	79,466.61 79.458.55
Bill Pmt -Check	08/06/2019	8874	Gillig, LLC	36869601	-116.62	79,341.93
Bill Pmt -Check	08/06/2019	8875	Integrated Technologies		-75.84	79,266.09
Bill Pmt -Check	08/06/2019	8876	Lawson Laski Clark & Pogue, PLLC		-300.00	78,966.09
Bill Pmt -Check	08/06/2019	8877	Lawson Products, Inc.	Acc# 10140112	-48.40	78,917.69
Bill Pmt -Check Bill Pmt -Check	08/06/2019 08/06/2019	8878 8879	Minert & Associates RouteMatch Software, Inc		-147.00 -300.00	78,770.69 78,470.69
Bill Pmt -Check	08/06/2019	8880	White Cloud Communications Inc.		-336.00	78,134.69
Bill Pmt -Check	08/06/2019	8881	St Luke's Clinic - Hailey	940000328	-222.00	77,912.69
Deposit	08/06/2019		·	Deposit	91,425.50	169,338.19
Liability Check	08/07/2019		QuickBooks Payroll Service	Created by Payroll Service on 08/06/2019	-41,430.82	127,907.37
Deposit Paycheck	08/07/2019 08/08/2019	DD	Aguilar, Hortencia	Deposit Direct Deposit	1,187.76 0.00	129,095.13 129,095.13
Paycheck	08/08/2019	DD	Conlago, Maira P.	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Cosio-Tamayo, Jeronimo	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Dickerson, Mason	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Garcia-Izarraras, Gerardo	Direct Deposit	0.00	129,095.13
Paycheck Paycheck	08/08/2019 08/08/2019	DD DD	Gray, Stuart Hoechtl, Gerhard	Direct Deposit Direct Deposit	0.00 0.00	129,095.13 129,095.13
Paycheck	08/08/2019	DD	Humback, Eric	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Kelbert, Ashley	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Kelly, David W	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Knudson, Michael W	Direct Deposit	0.00	129,095.13
Paycheck Paycheck	08/08/2019 08/08/2019	DD DD	Leon, Teofilo O MacPherson, Kim	Direct Deposit Direct Deposit	0.00 0.00	129,095.13 129,095.13
Paycheck	08/08/2019	DD	Morgus, Wallace	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Nestor, Robert A	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Obland, Bryan	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Parker, Michael J	Direct Deposit	0.00	129,095.13
Paycheck Paycheck	08/08/2019 08/08/2019	DD DD	Perez, Jose Romero-Campos. Raul	Direct Deposit Direct Deposit	0.00 0.00	129,095.13 129,095.13
Paycheck	08/08/2019	DD	Russell, Tiffany	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Schultz, Margaret	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Selisch, Kurt	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Spalding, Richard L	Direct Deposit	0.00	129,095.13
Paycheck Paycheck	08/08/2019 08/08/2019	DD DD	Sproule, William Tellez, Carlos	Direct Deposit Direct Deposit	0.00 0.00	129,095.13 129,095.13
Paycheck	08/08/2019	DD	Uberuaga, Richard S	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Van Law, Tucker G	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Varner, Benjamin N	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Victorino, Jose L	Direct Deposit	0.00	129,095.13
Paycheck Paycheck	08/08/2019 08/08/2019	DD DD	Vultaggio, Lara Wahlgren, Allan	Direct Deposit Direct Deposit	0.00 0.00	129,095.13 129,095.13
Paycheck	08/08/2019	DD	Walsh, Murray S.	Direct Deposit	0.00	129,095.13
Paycheck	08/08/2019	DD	Ward, Douglas B	Direct Deposit	0.00	129,095.13
Liability Check	08/08/2019	8862	Blaine County Collectors	20716	-75.00	129,020.13
Liability Check	08/08/2019	8863	Idaho Child Support Receipting	326231	-200.76	128,819.37
Bill Pmt -Check	08/12/2019	ACH	Verizon Wireless	942013229 expense reimbursement ITD Summit	-59.45	128,759.92
Bill Pmt -Check Bill Pmt -Check	08/12/2019 08/12/2019	8882 8883	Ben Varner' Cummins Rocky Mountain LLC	expense reimbursement ITD Summit	-657.72 -647.42	128,102.20 127,454.78
Bill Pmt -Check	08/12/2019	8884	FallLine	KAR353 Ski Racks	-812.50	126,642.28
Bill Pmt -Check	08/12/2019	8885	Johnny G's Sub Shack		-59.94	126,582.34
Bill Pmt -Check	08/12/2019	8886	L.L. Green's Hardware	422	-85.98	126,496.36
Bill Pmt -Check	08/12/2019	8887	Les Schwab	117-00888 B567041	-571.30	125,925.06
Bill Pmt -Check Bill Pmt -Check	08/12/2019 08/12/2019	8888 8889	Rush Truck Centers State Insurance Fund	R567941 Policy # 495600	-347.12 -12,568.00	125,577.94 113,009.94
Bill Pmt -Check	08/12/2019	8890	TimeClock Plus	Cust #238434 Scheduling Software	-6,795.00	106,214.94
Bill Pmt -Check	08/12/2019	8891	UPS Store - 2444 (Ketchum)		-58.16	106,156.78
Bill Pmt -Check	08/12/2019	8892	Wally Morgus	expense reimbursement ITD Summit	-604.25	105,552.53
Bill Pmt -Check	08/12/2019	8893	Webb Landscape	Cust #MOU005	-510.00	105,042.53
Bill Pmt -Check Check	08/12/2019 08/12/2019	8894 ACH	Wells Fargo Intuit	4856200370127790 See Wells Fargo Statement Quick Books Enterprise	-5,577.32 -1,660.04	99,465.21 97,805.17
Deposit	08/12/2019			Deposit Deposit	55,885.00	153,690.17

### MRTA - Operations Main Checks Issued

As of August 31, 2019

Туре	Date	Num	Name	Memo	Amount	Balance
Deposit	08/12/2019	4011		Deposit	665.00	154,355.17
Bill Pmt -Check Deposit	08/13/2019 08/13/2019	ACH	American Funds	plan ID BRK100102 Retirement fundin Deposit	g -32,363.09 1,067.92	121,992.08 123,060.00
Deposit	08/14/2019			Deposit	50.00	123,110.00
eposit	08/14/2019			Deposit	60,472.00	183,582.00
eposit	08/15/2019			Deposit	723.68	184,305.68
eposit	08/16/2019			Deposit	11,418.25	195,723.93
posit	08/16/2019			Deposit	3,692.50	199,416.4
Pmt -Check	08/19/2019	8895	Cintas	Cust #16952	-104.40	199,312.0
II Pmt -Check	08/19/2019	8896	City of Ketchum		-340.15	198,971.8
ill Pmt -Check	08/19/2019	8897	Copy & Print		-164.49	198,807.3
ill Pmt -Check	08/19/2019	8898	Cummins Rocky Mountain LLC	36869601	-110.62	198,696.7
Bill Pmt -Check	08/19/2019	8899	Gillig, LLC		-98.63	198,598.1
Bill Pmt -Check Bill Pmt -Check	08/19/2019 08/19/2019	8900 8901	Jackson Group Peterbilt Kimberly L Richmond	3551 8/1/19 - 8/15/19	-316.40 -600.00	198,281.7 197,681.7
ill Pmt -Check	08/19/2019	8902	L.L. Green's Hardware	422	-271.71	197,410.0
Bill Pmt -Check	08/19/2019	8903	United Oil	38068	-11,488.81	185,921.2
Deposit	08/19/2019	0000	Office Off	Deposit	1,875.00	187,796.2
eposit	08/19/2019			Deposit	23,498.59	211,294.8
Deposit	08/19/2019			Deposit	708.26	212,003.0
eposit	08/20/2019			Deposit	2,013.79	214,016.8
II Pmt -Check	08/20/2019	ACH	Idaho Power Acc#2204788885	Acct #2204788885	-238.24	213,778.6
ill Pmt -Check	08/20/2019	8904	Ketchum Computers, Inc.		-72.50	213,706.1
ill Pmt -Check	08/20/2019	8905	Schaeffer Mfg Co	1140316	-1,219.87	212,486.2
iability Check	08/20/2019	E-pay	United States Treasury	82-0382250 QB Tracking # 1378466030	-12,598.20	199,888.0
iability Check	08/21/2019		QuickBooks Payroll Service	Created by Payroll Service on 08/20/2019	-40,662.13	159,225.9
eposit	08/21/2019			Deposit	4,205.00	163,430.9
eposit	08/21/2019			Deposit	588.78	164,019.7
aycheck	08/22/2019	DD	Aguilar, Hortencia	Direct Deposit	0.00	164,019.7
Paycheck	08/22/2019	DD	Conlago, Maira P.	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Cosio-Tamayo, Jeronimo	Direct Deposit	0.00	164,019.7
Paycheck	08/22/2019	DD	Dickerson, Mason	Direct Deposit	0.00	164,019.7
Paycheck	08/22/2019	DD	Garcia-Izarraras, Gerardo	Direct Deposit	0.00	164,019.7
Paycheck Paycheck	08/22/2019 08/22/2019	DD DD	Gray, Stuart Hoechtl, Gerhard	Direct Deposit Direct Deposit	0.00 0.00	164,019.70 164,019.70
aycheck aycheck	08/22/2019	DD	Humback, Eric	Direct Deposit	0.00	164,019.7
aycheck aycheck	08/22/2019	DD	Kelbert, Ashley	Direct Deposit	0.00	164,019.7
Paycheck	08/22/2019	DD	Kelly, David W	Direct Deposit	0.00	164,019.7
Paycheck	08/22/2019	DD	Knudson, Michael W	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Leon, Teofilo O	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	MacPherson, Kim	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Morgus, Wallace	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Nestor, Robert A	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Obland, Bryan	Direct Deposit	0.00	164,019.70
aycheck	08/22/2019	DD	Perez, Jose	Direct Deposit	0.00	164,019.70
aycheck	08/22/2019	DD	Romero-Campos, Raul	Direct Deposit	0.00	164,019.70
aycheck	08/22/2019	DD	Russell, Tiffany	Direct Deposit	0.00	164,019.70
aycheck	08/22/2019	DD	Schultz, Margaret	Direct Deposit	0.00	164,019.70
aycheck	08/22/2019	DD	Selisch, Kurt	Direct Deposit	0.00	164,019.70
Paycheck	08/22/2019	DD	Spalding, Richard L	Direct Deposit	0.00	164,019.70
Paycheck	08/22/2019 08/22/2019	DD DD	Sproule, William	Direct Deposit Direct Deposit	0.00 0.00	164,019.70
Paycheck Paycheck	08/22/2019	DD	Tellez, Carlos Uberuaga, Richard S	Direct Deposit	0.00	164,019.70 164,019.70
aycheck aycheck	08/22/2019	DD	Van Law, Tucker G	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Varner, Benjamin N	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Victorino, Jose L	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Vultaggio, Lara	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Walsh, Murray S.	Direct Deposit	0.00	164,019.7
aycheck	08/22/2019	DD	Ward, Douglas B	Direct Deposit	0.00	164,019.7
iability Check	08/22/2019	8906	Blaine County Collectors	20716	-75.00	163,944.7
iability Check	08/22/2019	8907	Idaho Child Support Receipting	326231	-200.76	163,743.9
Bill Pmt -Check	08/26/2019	ACH	CenturyLink	208-726-1690 623B	-42.19	163,701.7
Bill Pmt -Check	08/26/2019	ACH	Cox Communications	Acct #0012401205184001	-232.61	163,469.1
Bill Pmt -Check	08/26/2019	8908	Copy & Print		-42.99	163,426.1
Bill Pmt -Check	08/26/2019	8909	Integrated Technologies		-27.10	163,399.0
Bill Pmt -Check	08/26/2019	8910	Jackson Group Peterbilt	3551	-301.50	163,097.5
Bill Pmt -Check	08/26/2019	8911	L.L. Green's Hardware	422	-85.98	163,011.5
Bill Pmt -Check	08/26/2019	8912	Lutz Rental	1100000151	-21.60	162,989.9
Bill Pmt -Check	08/26/2019	8913	Wood River Welding, Inc.	Bus Repairs	-648.37	162,341.6
Bill Pmt -Check	08/26/2019	8914	Jane's Artifacts	DOD99	-4.99 244.02	162,336.6
	08/26/2019	ACH	Aflac	DQR88	-241.92	162,094.6
iability Check	08/27/2019			Deposit Deposit	20,789.56 907.50	182,884.2 183,791.7
iability Check Deposit				Deposit	700.00	184,491.7
Liability Check Deposit Deposit	08/28/2019			Deposit	1,186.97	185,678.7
iability Check Deposit Deposit Deposit	08/28/2019				1.100.3/	100,070.7
iability Check Deposit Deposit Deposit Deposit	08/28/2019 08/28/2019					186 846 4
Liability Check Deposit Deposit Deposit Deposit Deposit Deposit	08/28/2019 08/28/2019 08/28/2019			Deposit	1,167.77	
Liability Check Deposit Deposit Deposit Deposit Deposit Deposit	08/28/2019 08/28/2019 08/28/2019 08/30/2019	Transfer	III-A Trust		1,167.77 760.37	187,606.8
Liability Check Deposit Deposit Deposit Deposit Deposit Deposit Deposit	08/28/2019 08/28/2019 08/28/2019 08/30/2019 08/31/2019	Transfer	III-A Trust	Deposit Deposit	1,167.77 760.37 0.00	186,846.49 187,606.80 187,606.80 187,613.93
iability Check Deposit Deposit Deposit Deposit Deposit Deposit Deposit Deposit Deposit	08/28/2019 08/28/2019 08/28/2019 08/30/2019 08/31/2019 08/31/2019	Transfer	III-A Trust	Deposit	1,167.77 760.37 0.00 7.06	187,606.8 187,606.8 187,613.9
Liability Check Deposit Deposit Deposit Deposit Deposit Deposit Deposit	08/28/2019 08/28/2019 08/28/2019 08/30/2019 08/31/2019 08/31/2019	Transfer	III-A Trust	Deposit Deposit	1,167.77 760.37 0.00	187,606.80

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Rate Information

Your rate may vary according to the terms of your agreement.

TYPE OF BALANCE	ANNUAL INTEREST RATE	DAILY FINANCE CHARGE RATE	AVERAGE DAILY BALANCE	PERIODIC FINANCE CHARGES	TRANSACTION FINANCE CHARGES	TOTAL FINANCE CHARGES
PURCHASES	16.490%	.04517%	\$0.00	\$0.00	\$0.00	\$0.00
	26.240%	07189%	\$0.00	\$0.00	\$0.00	\$0.00
CASH ADVANCES TOTAL	20.24070	1		\$0.00	\$0.00	\$0.00

Summary of Sub Account Usage

Name	Sub Account	Monthly	Spend
	Number Ending In	Spending Cap	This Period
KIMBERLY MACPHERSON	2287	7,500	\$5,577.32

#### **Transaction Details**

The transactions detailed on this Consolidated Billing Control Account Statement contain transactions made directly to this Control Account plus all transactions made on Sub Accounts. If there were no transactions made by a Sub Account that Sub Account will not appear.

Trans	Post	Reference Number	Description	Credits Charges
07/18	07/18	7485620580A99J37D	Branch Payment - Check TOTAL 4856200370127790 \$734.99-	734.99
Transac Sub Acc	ction Sum count Nu	nmary For <b>KIMBERLY MAC</b> mber Ending In <b>2287</b>	PHERSON	
07/02 07/03 07/14 07/18 07/18 07/21 07/21 07/22 07/22 07/22 07/24 07/31 08/01	07/03 07/03 07/14 07/18 07/18 07/21 07/21 07/22 07/22 07/22 07/24 07/31 08/01	24493985R0T4Q8ZB5 24492155RJHMB33BH 242042963000TNFV2 2443106670RXFB6P2 249064167278A18G5 24431066A0RXLR15H 24431066A0RXLV98F 24137466Q01B1D47J 24492156B\$1GGYP08 24492156B\$1GGYRM4 24717056D7L1YJ03B 24432396M000HEMQY 24492156MJJ0V945P	8X8 INC 888-898-8733	292.10 Waterproof Paper — 370.00 49.50 14.99 Annual Dues — 1,120.00 34.99 29.98 58.00 Bus part — (279.07 16.74 3Taff meal — 49.25 5RTS Heluncts — 3,115.00 Online Adv. — 147.70
			KIMBERLY MACPHERSON / Sub Acct Ending In 2287	

Wells Fargo News

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## **Planning and Marketing Committee**

# Regular Monthly Meeting

Wednesday, October 2, 2019, 1:00pm

Sun Valley City Hall Council Chambers, 81 Elkhorn Rd., Sun Valley, ID 83353

#### **MINUTES**

In attendance: Tory Canfield, Peter Hendricks, Jim Finch, Wally Morgus, Kim MacPherson, Tucker Van Law, Ben Varner, Blake Fonnesbeck, Leif Elgethun and Kiki Tidwell

- 1) Meeting called to order at 1:00pm.
- 2) Comments from the Chair and Members
  - a. Tory Canfield stated that she will not be applying for her board seat again.
- 3) Discuss: Blake Fonnesbeck re: Transition Plan for electrification of the Fleet
  - a. Blake Fonnesbeck gave a summary of his transition plan for the fleet going electric.
- 4) Discuss: Leif Elgethun re: Solar power Opportunity
  - a. Leif Elgethun offered some options for solar resources for Mountain Rides by possibly adding solar panels to the top of the roof.
- 5) Discuss: At-Large Board member applicants
  - a. No time for discussion. The board will choose a committee at the next board meeting to evaluate the candidates.
- 6) Discuss: Hailey Route fares
  - a. No time for discussion. This will be discussed at the next board meeting.
- 7) Discuss: Other items that may come before the Committee
  - a. There were none.
- 8) Adjourn at 2:30pm.



### **Finance and Performance Committee**

#### **Minutes**

# Wednesday, October 2nd, 2019, 2:30pm Sun Valley City Hall Council Chambers, 81 Elkhorn Road, Sun Valley, ID 83353

# <u>Present: Grant Gager, Rick Webking, Kathleen Kristenson, Tom Blanchard, Wally Morgus, Ben Varner, and Tucker Van Law</u>

- 1) Call to Order
- 2) Comments from the Chair and Members
- a) There were none
- 3) Presentation: Blake Fonnesbeck re: Transition Plan for Electrification of the Fleet
- a) Blake presented his Alternative Fuel Technology Implementation Plan that included two scenarios for electrification of the fleet.
- 4) Presentation: Leif Elgethun re: Solar Power Opportunity
- a) Leif presented a Solar Power Opportunity plan that would add solar panels to the Bellevue Facility. The committee elected to table moving forward with solar panels at this time.
- 5) Discuss: FY2019 Financial Audit: Workman & Company will be present to answer questions
- a) Brady Workman opened the discussion asking for suggestions and requests regarding the FY2019 financial audit. Rick Webking had some suggestions that Brady agreed to consider.
- 6) Review: August 2019 Operating Financial Statement & Bills Paid
- a) The group went over the financials and bills paid with Tucker Van Law to answer questions. Grant Gager made a motion to add this to the consent agenda to be received and filed by the board and Kathleen Kristenson seconded. All members approved.
- 7) Discuss: Bylaws re: Amendment of Article One
- a) The committee reviewed the changes to Article One and no concerns were noted. Grant Gager made a motion to add this to the consent agenda to be received and filed by the board and Kathleen Kristenson seconded. All members approved.
- 8) Discuss: Hailey Fares

- a) Wally Morgus opened the discussion recommending the Hailey Route be fare free. Tucker Van Law presented some potential financial losses but the group determined it was worth the risk and will bring it to the full board in October.
- b) Discussion ensued regarding free Valley Route within city limits. The committee determined further discussion was warranted before proceeding with any changes.
- 9) Discuss: At-large Board Member applicants
- a) The committee asked to bring the discussion to the full board in October.
- 10) Discuss: Other items that may come before the Committee
  - a) There were none.
- 11) Adjourn

<u>Date:</u>	10/16/2019
Staff Member:	Kim MacPherson
<u>Department:</u>	Community Development
<u>Department Highlights</u> <u>from</u> <u>the Previous Month:</u>	Hopthru, the mobile ticketing app, will be launching this week. I have been working on the marketing end of the project, getting the word out. We had ads in the paper, on the website and on the buses.
Progress on projects/initiatives:	Work on the winter bus schedule has started.
<u>Challenges/</u> <u>Opportunities:</u>	Still interviewing candidates for the Safes Routes to School coordinator. Hope to hire one in the next week or so.

Date:	10/16/2019
Staff Member:	Ben Varner
<u>Department:</u>	Operations, Maintenance and Facilities
<u>Department</u> <u>Highlights</u> <u>from</u> <u>the</u> <u>Previous</u> <u>Month:</u>	Congratulations to Ashley Kelbert, Operations Coordinator, for being certified by the USDOT Transportation Safety Institute. Ashley completed the "Instructors Course for Transit Trainers" in September. Thanks to ITD and the RTAP program for putting on on program and reimbursing MRTA's costs.
<u>Progress</u> <u>on projects/initiatives:</u>	Winter driver hiring is going very well so far. We have hired a great group of new drivers.
<u>Challenges/</u> <u>Opportunities:</u>	CDL/new driver training starts Oct. 28. Our training team has a great program put together and we are excited to get everyone trained up for winter operations.

Date:	10/16/2019
Staff Member:	Tucker Van Law
<u>Department:</u>	Director Finance & Administration
<u>Department</u> <u>Highlights</u> <u>from</u> <u>the</u> <u>Previous</u> <u>Month:</u>	Mountain Rides has been awarded an additional \$275,000 in 5311 Operating funds that will be recorded in FY19. This one time award will allow us to use more local funds for capital purchases.
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Progress on projects/initiatives:	FY19 has ended and barring something unexpected we will easily come under total budgeted expenses with total revenues exceeding budget.
	Beginning prep work for our fiscal year 2019 audit. No problems expected.
<u>Challenges/</u> <u>Opportunities:</u>	

Date:	Oct 16, 2019
Staff Member:	Wally Morgus, Executive Director
Department:	Administration
Department Highlights from the Previous Month:	JPA Extension thru Sep 30, 2023 executed and recorded.
	FY20 Service & Funding Agreements with Joint Powers executed.
	FY20 Service & Funding Agreement with Sun Valley Co. executed.
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<u>Progress</u> <u>on projects/initiatives:</u>	FY21/FY22 FTA 5311 Operating Grant application in-processdue 11/12/19.
	FY21/FY22 FTA 5339 Capital Grant application in-processdue 11/12/19.
	FY21/FY22 FTA VIP Grant application in-processdue 11/12/19.
	Re-started dialogue with Bellevue land owner re: P&S for parcel.
Challenges/	Bellevue land acquisition.
Opportunities:	Fleet electrification.

# Mountain Rides Agenda Action Item Summary

<u>Date:</u>	October 16, 2019 F&P Committee & P&M Committee
Action Item:	5. Consideration of Restructuring Fares for the Hailey Route
Committee Review:	Yes No Committee F&P Committee & P&M Committee Purview:
Previously discussed at board level:	Yes No
Recommended Motion:	I move that Mountain Rides adopt and enact a free fare for all riders at all times on all days of service for the Hailey Route.
Fiscal Impact:	~\$7,000 reduction of annual revenue relative to maintaining a paid-fare for the Hailey Route.
Related Policy or Procedural Impact:	
Background:	Hailey Route fare was instituted in November 2015; prior to that time, the Hailey Route, like all other Mountain Rides' Town Routes, was a fare-free route.
	Coincident with and subsequent to the institution of a fare on the Hailey Route, ridership on the route declined year-over-year.
	During Summer and Fall 2019, the Hailey Route was offered as a fare-free route. Year-over-year ridership during the 2019 fare-free period was up by ~5,250 riders (+94%) over the same period for 2018.
	Mountain Rides can accommodate the fiscal impact of a fare-free Hailey Route by: i) application of the City of Hailey's annual contribution to Mountain Rides to underwrite the Hailey Route's foregone fares revenue and ii) introducing greater efficiency, without compromising customer service, by slightly reducing daily (low-demand, unproductive) hours of operation of the Hailey Route.

# Mountain Rides Agenda Action Item Summary

<u>Date:</u>	October 16, 2019 F&P Committee & P&M Committee
Action Item:	6. Selection of Sub-committee to Nominate a Director-at-large
Committee Review:	Yes No Committee P&P Committee & P&M Committee Purview:
Previously discussed at board level:	Yes No
Recommended Motion:	I move that Mountain Rides' Board of Directors authorize, and Wally Morgus as its sub-committee for nominating a Director-at-large to serve a three-year term commencing January 1, 2020.
Fiscal Impact:	NA
Related Policy or Procedural Impact:	
Background:	