

UTA Board of Trustees Meeting

July 27, 2022



Call to Order and Opening Remarks



Pledge of Allegiance



Safety First Minute



Public Comment

Live comments are limited to 3 minutes per commenter

Public comment was solicited prior to the meeting through alternate means, including email, telephone, and the UTA website

Any comments received through alternate means were distributed to the board for review in advance of the meeting



Consent Agenda

- a. Approval of July 13, 2022 Board Meeting Minutes



Recommended Action **(by acclamation)**

Motion to approve consent agenda



Reports



Executive Director's Report

- UTA Services to Events



UTA Services to Events



Ridership Summary Information

Garth Brooks:

- **Combined estimated ridership 66,497**
 - TRAX – 50,401
 - Bus – 8,921
 - FrontRunner – 7,175

Warriors over the Wasatch:

- **Estimated Ridership 59,000 (Bus: 30,361 FrontRunner: 28,378)**
- **Number in attendance at Airshow: 600,000**

Stadium of Fire:

- **Estimated Ridership 2,700**



“Putting On The Show”



2022 AIR SHOW

HELPFUL HINTS

visit www.HILL.AF.mil for updates on:

- DOs and DON'Ts
- PUBLIC PARKING
- USE PUBLIC TRANSPORTATION
- AVOID AIRSHOW TRAFFIC CONGESTION
- LIST OF PERFORMERS

A promotional poster for the 'Stadium of Fire' event. It features a portrait of Tim McGraw in a cowboy hat. The text includes: 'Altabank', 'STADIUM OF FIRE', 'JULY 2, 2022 LAVELL EDWARDS STADIUM', 'FEATURING TIM MCGRAW', and '& SPECIAL GUEST MARIE OSMOND'. At the bottom, it says 'AMERICA'S FREEDOM FESTIVAL AT PROVO' and lists sponsors: TOYOTA, NUSKIN, provo, Utah County, CLYDE, clearlink, KSL TV, and hales.



Garth Brooks
Friday June 17th
Saturday June 18th

Bruce Cardon
Lorin Simpson
Andres Colman
Chief Dalan Taylor



**Warriors over
the Wasatch
Saturday June 25th
Sunday June 26th**

**Michelle Wallace
Zac Thomas
Lloyd Davis**



**Stadium of
Fire
Saturday July 2nd**

**Mary DeLaMare-
Schaefer**



Questions?

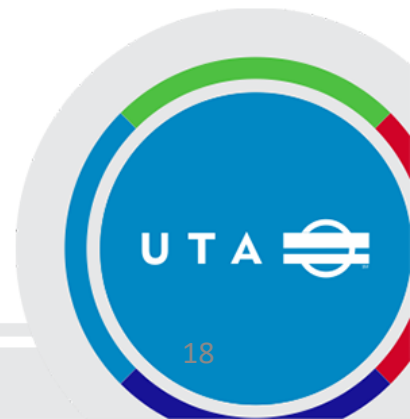


Investment Report – Second Quarter 2022



Investments as of June 30, 2022

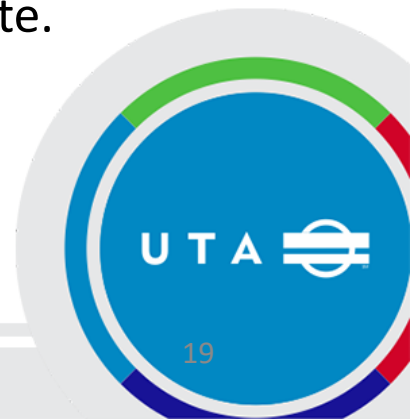
Institution	Amount	Yield
Chandler Asset Management - UTA	\$151,693,823	0.913%
Chandler Asset Management – Self Insurance	\$8,040,994	0.913%
Chandler Asset management – Catastrophic Loss	\$1,100,253	0.913%
Zions Bank	\$19,560,292	0.760%
PTIF	\$374,760,397	0.854%
Totals	\$555,155,758	0.868%



Benchmark Comparisons Second Quarter 2022

Institution	April	May	June
Zions Bank	0.24%	0.70%	1.34%
Chandler Asset Management	0.86%	0.90%	0.98%
PTIF	0.61%	0.79%	1.11%
Benchmark Returns*	0.83%	1.12%	1.66%

* Benchmark return is the higher of the 3-Month Treasury Bill or the Fed Funds rate.



Questions?



Resolutions



R2022-07-04
Resolution Approving the Title VI
Service Equity Analysis for August 2022
Change Day



UTA and Title VI

- Title VI of the Civil Rights Act requires UTA work to ensure there is no discrimination in the delivery of service
- UTA reviews the equitability of all major changes
- An analysis is performed to ensure there are no unintended negative impacts on low-income people and minorities
- The analysis is presented to and approved by UTA's Board of Trustees



Datasets and Analysis Parameters

- Demographic data from the 2020 American Community Survey (ACS) were used to determine who was impacted by the proposed changes
- Demographics of those impacted were compared to the demographics of the service area
- Differences greater than 5% between those impacted by changes and the entire system require further examination and consideration



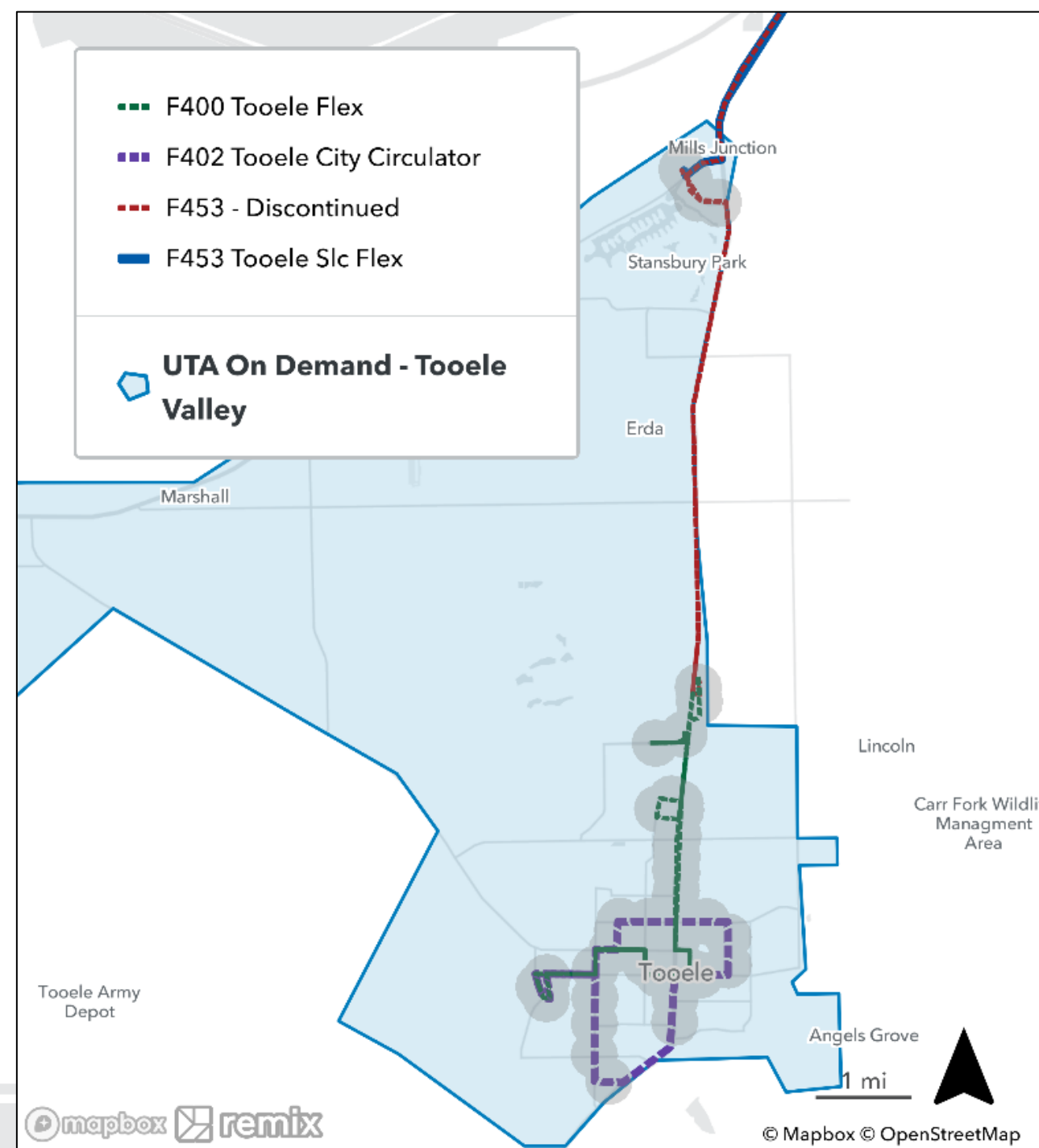
Pandemic Response Changes and August Change Day

- Rapid response changes for COVID-19 exempted from equity analysis requirements
- 29 pandemic related changes - now permanent
 - 16 eliminated routes
 - 13 routes frequency or span reduced
- August Change day had 20 major changes
 - 8 alignment changes
 - 2 new routes
 - 10 eliminated routes



Analysis of Changes

- 12 potential findings were mitigated by the introduction of new or enhanced service
- Decreases in service were in response to ridership and demand
- All potential findings had substantial justification to proceed



Conclusion

- Elimination of fixed routes will decrease the number of people within a quarter mile of stops *but* the people being served are more diverse
- The introduction of UTA On Demand in Tooele and Davis Counties increases the service area
- All potential findings either mitigated by other service or justified to proceed due to decreased demand and operational limitations



Recommended Action

(by roll call)

Motion to approve R2022-07-04
Resolution Approving the Title VI Service Equity Analysis for August 2022 Change Day



R2022-07-05

**Resolution Authorizing the Execution of
Federal Transit Administration 5310
Grant Agreements for Specified
Projects**



Coordinated Mobility

- Requesting approval to process and execute 5310 subrecipient agreements upon the award of Federal Transit Administration 5310 Program Grant Agreements as listed in the resolution.
- The FTA 5310 Program is intended to enhance mobility for seniors and persons with disabilities.



Coordinated Mobility

- The subrecipient projects are being funded through a FFY 19/20 Amendment, FFY 2021 and FFY 2022 new grant awards.
- Of the 41 agreements to be signed, 5 of the subrecipient awards are above \$200K.
- The 5310 Program provides funding to support critical services in our communities.

Information regarding the FTA
Section 5310 Program can be
found at www.rideuta.com/cmm



Recommended Action

(by roll call)

Motion to approve R2022-07-05
Resolution Authorizing the Execution of Federal Transit Administration 5310 Grant
Agreements for Specified Projects



R2022-07-06

**Resolution Approving the Distribution of
Free Transit Passes for the Opening of
the Vineyard FrontRunner Station**



RESOLUTION R2022-07-06

Resolution approving the distribution of free transit passes for the grand opening of Vineyard Station on FrontRunner

- Vineyard Station will open for service August 8, 2022
- The resolution authorizes distribution of premium passes to promote the station's opening:
 - Valid 1-day upon first tap
 - Distributed August 12, 13, and 15
 - Estimated distribution of 1,500 passes valued at \$3.75 each



Vineyard Station – grand opening activities

- Grand opening event August 12, 2022
- Station “now open” featured on digital billboards and radio
- News and social media
- Website and service alerts
- Pass distribution:
 - Vineyard City “Community Celebration” for residents August 12, 2022
 - On platform for riders August 13 and 15



Recommended Action

(by roll call)

Motion to approve R2022-07-06
Resolution Approving the Distribution of Free Transit Passes for the Opening of the
Vineyard FrontRunner Station



Contracts, Disbursements, and Grants



Contract: Depot District Clean Fuels Technology Center Security Cameras and Access Control (Stone Security)

Recommended Action (by acclamation)

Motion to approve the contract with Stone Security for Depot District Clean Fuels Technology Center security cameras and access control, as presented



Contract: Mobile App Vendor for Fare Collection (Masabi LLC)

Recommended Action (by acclamation)

Motion to approve the contract with Masabi LLC for mobile app fare collection, as presented



Contract: Long-Range Transit Plan (LRTP) Development Services (Nelson/Nygaard Consulting Associates, Inc.)

Recommended Action (by acclamation)

Motion to approve the contract with Nelson/Nygaard Consulting Associates, Inc. for long-range transit plan development services, as presented



Change Order: On-Call Infrastructure Maintenance Contract Task Order #22-59 – Materials Procurement for Replacement of Turnouts at the Sugar Interlocking, 5300 South, 5400 South, and the Murray Siding (Stacy Witbeck, Inc)

Recommended Action (by acclamation)

Motion to approve the On-Call Infrastructure Maintenance Contract Task Order #22-59 - Materials Procurement for Replacement of Turnouts at the Sugar Interlocking, 5300 South, 5400 South, and the Murray Siding with Stacy Witbeck, Inc. as presented



Service and Fare Approvals



Fare Agreement: Trip-Based Education Pass – Modification No. 1 (Davis Technical College)

Recommended Action (by acclamation)

Motion to approve Modification 1 to the trip-based education pass fare agreement with Davis Technical College, as presented



Fare Agreement: Education Pass (Ensign College)

Recommended Action (by acclamation)

Motion to approve the education pass agreement with Ensign College, as presented



Fare Agreement: Special Events Pass – Modification No. 3 (University of Utah)

Recommended Action (by acclamation)

Motion to approve Modification No. 3 to the special events pass agreement with the University of Utah, as presented



Budget and Other Approvals



TBA2022-07-01 – Technical Budget Adjustment – 2022 Capital Budget



Summary of Budget Request

Request seeks to:

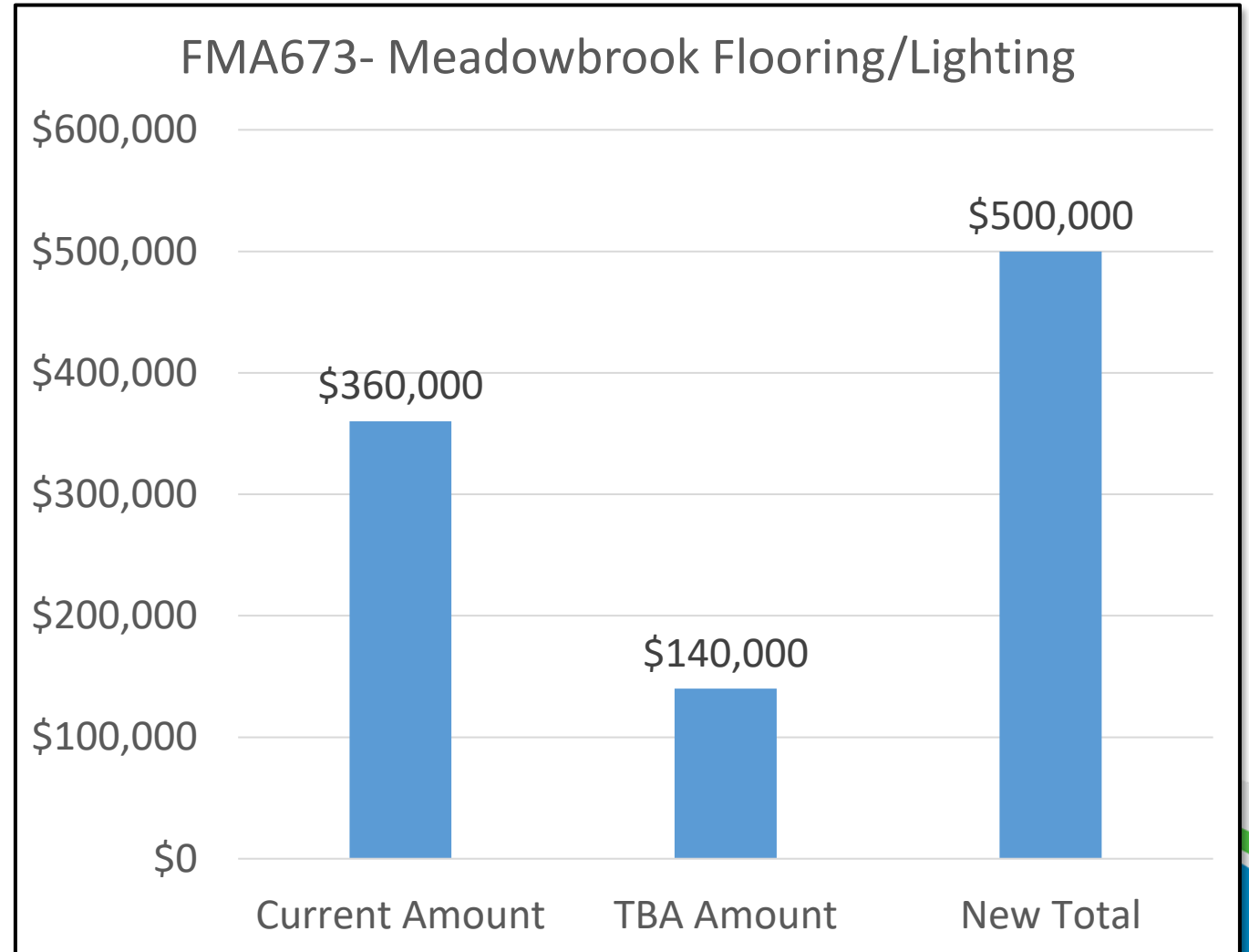
- Transfer \$940,000 from Capital Contingency to two projects
 - FMA673- Meadowbrook Flooring/Lighting - \$140,000
 - MSP232- Northern Utah County Double Track - \$800,000

The remaining Capital Contingency budget would be \$4,060,000



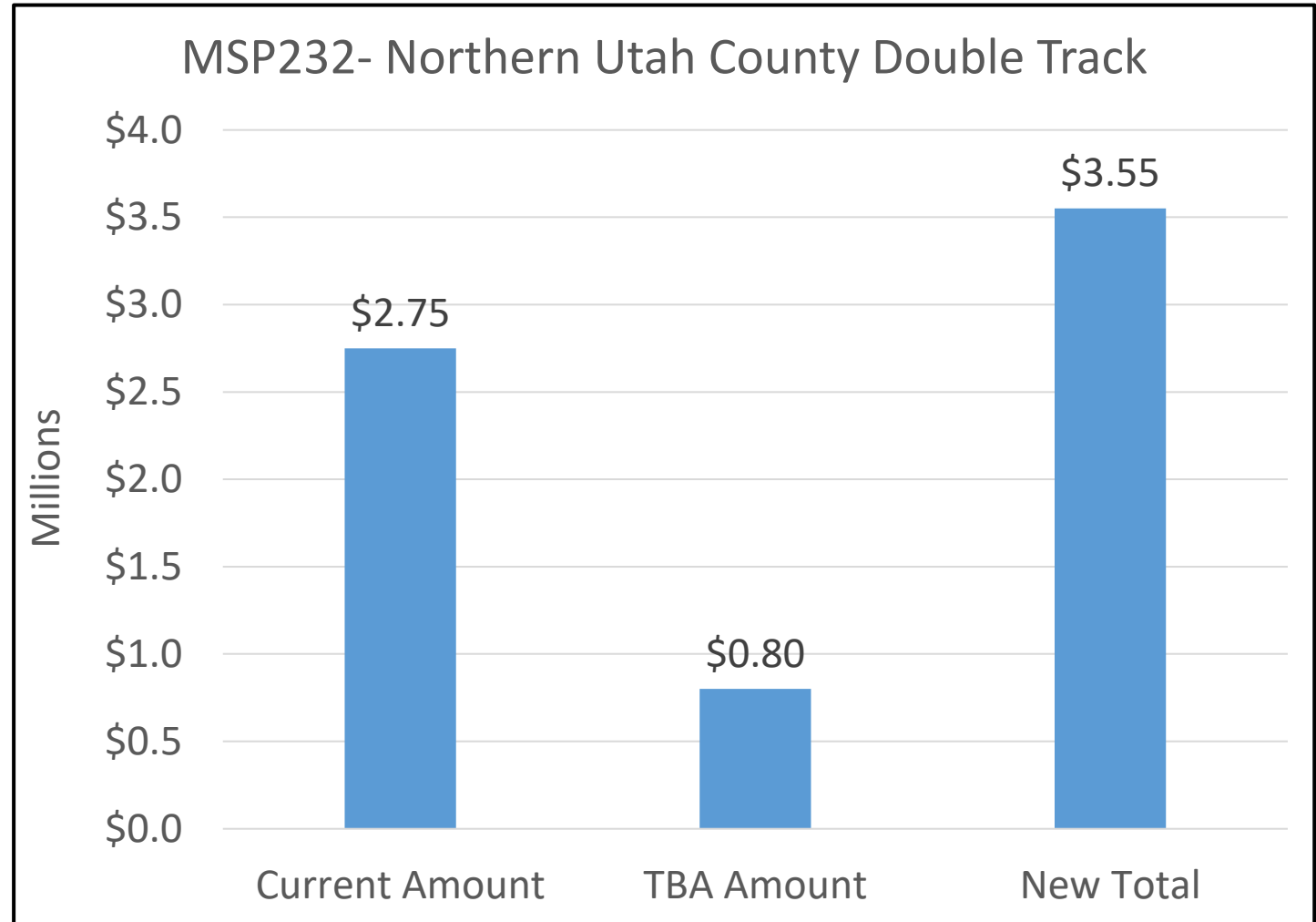
FMA673- Meadowbrook Flooring/Lighting

- Request transfer of \$140,000 to existing budget
 - New 2022 total budget is \$500,000
- Due to cost escalation



MSP232- Northern Utah County Double Tracking

- Funds are to cover the cost of the temporary parking lot



Questions



Recommended Action

(by acclamation)

Motion to approve TBA2022-07-01 – Technical Budget Adjustment –
2022 Capital Budget



**TBA2022-07-02 – Technical Budget
Adjustment – Full Time Employee
Requests for Non-Revenue Fleet
Support and Maintenance of Way
Training Administrator**



Summary of Budget Request

Request seeks to add one FTE to the Capital Asset and Project Controls Group.

- Fleet Vehicle Maintenance Specialist

Request seeks to add one FTE to the Training and Development group

- MOW Training Administrator



Support Fleet FTE Request

- Initial response to FTA's Financial Management Oversight (FMO) and Internal Audits that identified the need for additional resources
- New Position is for a Fleet Vehicle Maintenance Specialist
- Would boost Fleet Vehicle staff to 2 positions
- 2022 estimated budget needs are approximately \$32,000 including office set up
 - Funded from 6820 Operating budget underruns
- Ongoing costs for position in 2023 and beyond would be approximately \$95,000
- Additional resources may be requested in the 2023 Operating budget, pending the outcome of the Fleet Management Action Plan



Training Administrator FTE Request

- Response to Internal Audits that identified the need for additional resources separate from Rail Apprenticeship
- New Position is for a Training Administrator
- 2022 estimated budget needs are approximately \$40,000 including office set up
 - Funded from vacancy savings in Chief Operations Officer budget underruns
- Ongoing costs for position in 2023 and beyond would be approximately \$120,000 base salary plus fringe
- Position may also support some TRAX maintenance training compliance tracking



Questions



Recommended Action

(by acclamation)

Motion to approve TBA2022-07-02 – Technical Budget Adjustment – Full Time Employee Requests for Non-Revenue Fleet Support and Maintenance of Way Training Administrator



TBA2022-07-03 – Technical Budget Adjustment – August 2022 Service Change



Summary of Bus Service Changes

SERVICE	ADOPTED BUDGET	CHANGE	ADJUSTED TOTAL
BUS	\$120,064,000	\$ 1,337,000	\$121,401,000
OPERATING CONTINGENCY	\$ 1,805,000	(\$1,337,000)	\$ 468,000
NET BUDGET ADJUSTMENT	\$121,869,000	\$0	\$121,869,000



Summary of Service Changes – On Demand

SERVICE	ADOPTED BUDGET	CHANGE	ADJUSTED TOTAL
On Demand (Microtransit)	\$6,731,000	\$300,000	\$7,031,000
On Demand Contingency ¹	\$ 403,000	(\$300,000)	\$ 103,000
NET BUDGET ADJUSTMENT	\$7,134,000	\$	\$7,134,000

Footnotes

¹ On Demand Contingency programmed in Planning and Engagement Budget



Technical Budget Adjustment – Exhibit A

UTAH TRANSIT AUTHORITY TECHNICAL BUDGET ADJUSTMENT July 27, 2022

Exhibit A

<u>Revenue</u>	2022 Final Budget	August Service		Revised Budget
		Changes	Other	
1 Sales Tax	\$ 435,700,000			\$ 435,700,000
2 Federal Preventive Maintenance	59,500,000			59,500,000
3 Passenger Revenue	34,200,000			34,200,000
4 Advertising	1,377,000			1,377,000
5 Investment Income	5,160,000			5,160,000
6 Other Revenues	15,121,000			15,121,000
7 Stimulus Funding	100,100,000			100,100,000
8 Total Revenue	651,158,000	-	-	651,158,000
<u>Operating Expense</u>				
9 Bus	120,064,000	1,337,000		121,401,000
10 Commuter Rail	32,198,000	-		32,198,000
11 Light Rail	57,624,000			57,624,000
12 Paratransit Service	26,217,000	-		26,217,000
13 Rideshare/Vanpool	3,795,000			3,795,000
14 Operations Support	59,931,000			59,931,000
15 Operations Contingency	1,805,000	(1,337,000)		468,000
16 Management & Support	50,837,000	300,000		51,137,000
17 Planning and Engagement Contingency	403,000	(300,000)		103,000
18 Planning/Capital Support	9,493,000		-	9,493,000
19 Non-Departmental	790,000			790,000
20 Total Operating Expense	363,157,000	-	-	363,157,000



Recommended Action

(by acclamation)

Motion to approve TBA2022-07-03 – Technical Budget Adjustment –
August 2022 Service Change



**Approval for International Travel to
Calgary, Alberta, Canada for
Benchmarking Group of North
American Light Rail Systems (GOAL)
Annual Meeting**



Recommended Action

(by acclamation)

Motion to approve international travel to Calgary, Alberta, Canada for Benchmarking Group of North American Light Rail Systems (GOAL) Annual Meeting



Discussion Items



Mixed Bus Fleet Composition Strategy



Proposed Strategy

- 20-year plan
- 50% alternative fuels by 2042
- 38% Battery Electric, 14% CNG and 48% Clean Diesel
- Plan Complies with FTA's Zero Emission Transition Plan
- Review plan every 3 years
- Collaboration with TED, ET, RGM's and Maintenance Managers



Team Members

▪ Chief Enterprise Strategy Office

- Alisha Garrett (Chief Enterprise Strategy Officer)
- Bill Gerow (Sr Continuous Improvement Consultant)
- Jordan Eves (Business & Quality Analyst Supv)
- Jacob Ekker (Business Strategy Specialist)

▪ Chief Planning & Engagement Office

- Eric Callison (Mgr Service Planning)
- Kerry Doane (Mgr Long Range Strategic Planning)

▪ Chief Service Development Office

- Kyle Stockley (Mgr Veh Overhaul & Bus Support)
- Hal Johnson (Mgr Project Dev-System Planning)
- Ethan Ray (Proj Development Planner II)
- Daniel Locke (Environmental Compliance Admin)
- Jesse Rogers (Vehicle Procurement-Comm Admin)

▪ Chief Financial Office

- William Greene (Chief Financial Officer)

▪ Chief Operating Office

- Celeste Sloan (Senior Office Specialist)
- Andres Colman (Regional General Manager)



Areas of Analysis

PURPOSE

Develop a data driven mixed bus fleet composition strategy that supports UTA's mission. This strategy will align with UTA's service plan, the long-range transportation plan, and serve as a guide for future vehicle procurement and facilities plans

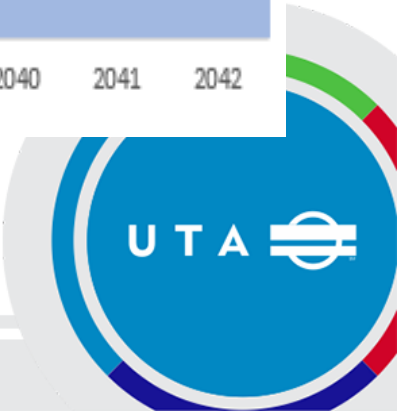
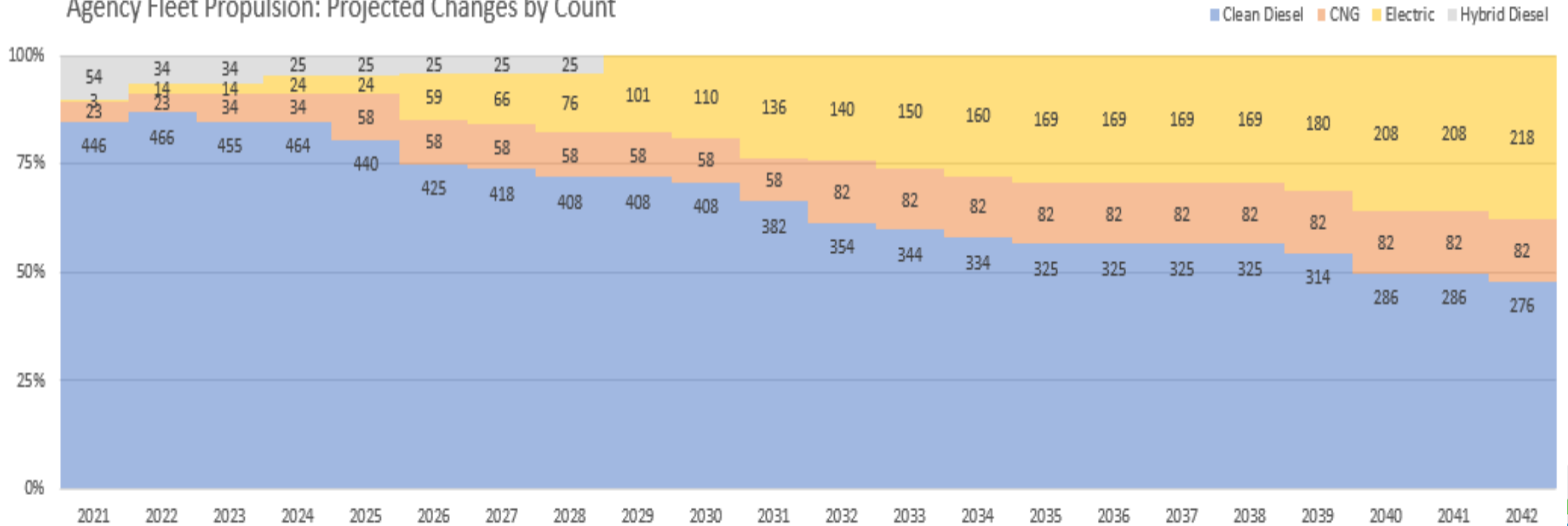
STRATEGY DEVELOPMENT INPUTS

- Current fleet mix & replacement schedule
- Environmental Impact
- Full life cycle vehicle cost
- Vehicle reliability
- Vehicle compatibility with service plan
- Resources per fleet (onboard, support, maintain)
- Current infrastructure & future needs
- Technological innovations
- National trends (other agencies, climate)
- External conditions (social, political)
- Available funding



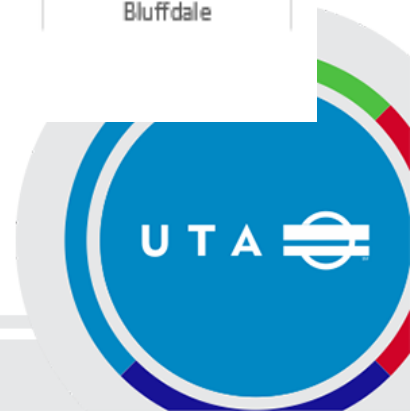
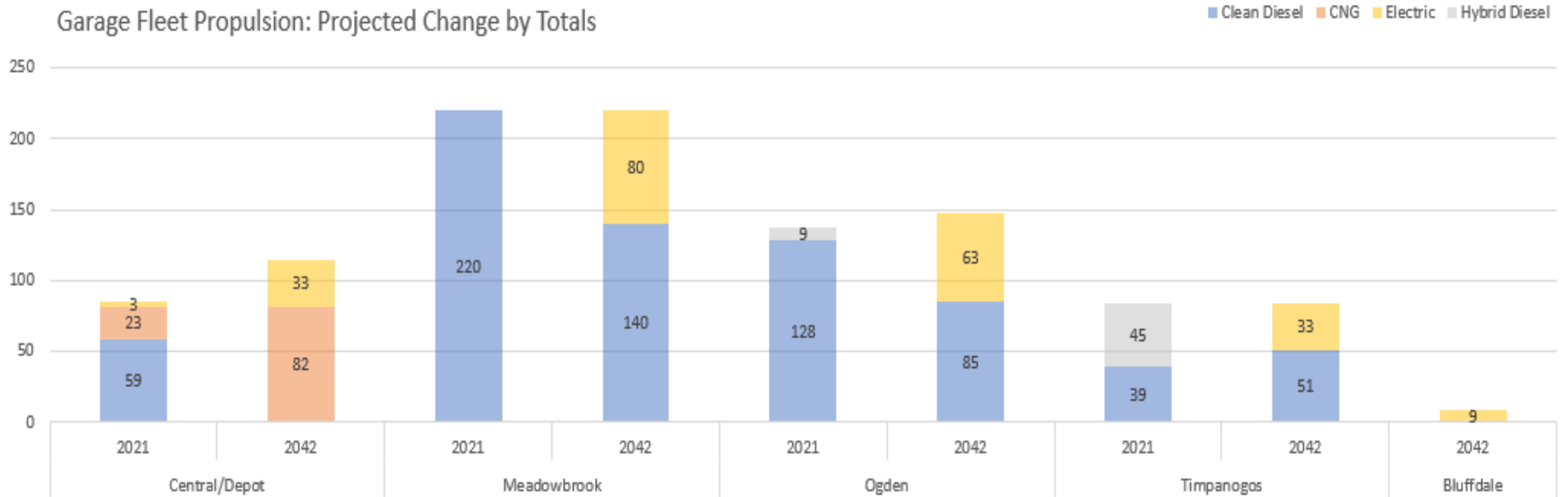
Projected Change Agency

Agency Fleet Propulsion: Projected Changes by Count



Projected Change Garage

Garage Fleet Propulsion: Projected Change by Totals



Training

ZEB Transition Plan for UTA Bus Operations & Maintenance Personnel

Needs Assessment

- Understand Workforce Skills
- Identify knowledge gaps and concerns
- Assessment/Revision of OEM training + Internal training material

Workforce Training & Deployment

- Lessons learned from peer agencies
- Safety Training
- Emergency procedures
- Best Practices (FTA, APTA)

First Responder Training

- Training to ensure proper emergency response procedures

Training Program

Safety

- Emergency procedures for charging and hazards
- Safe handling of high voltage components

Operations

- Operating time and range
- Optimal driving procedures
- Regenerative braking

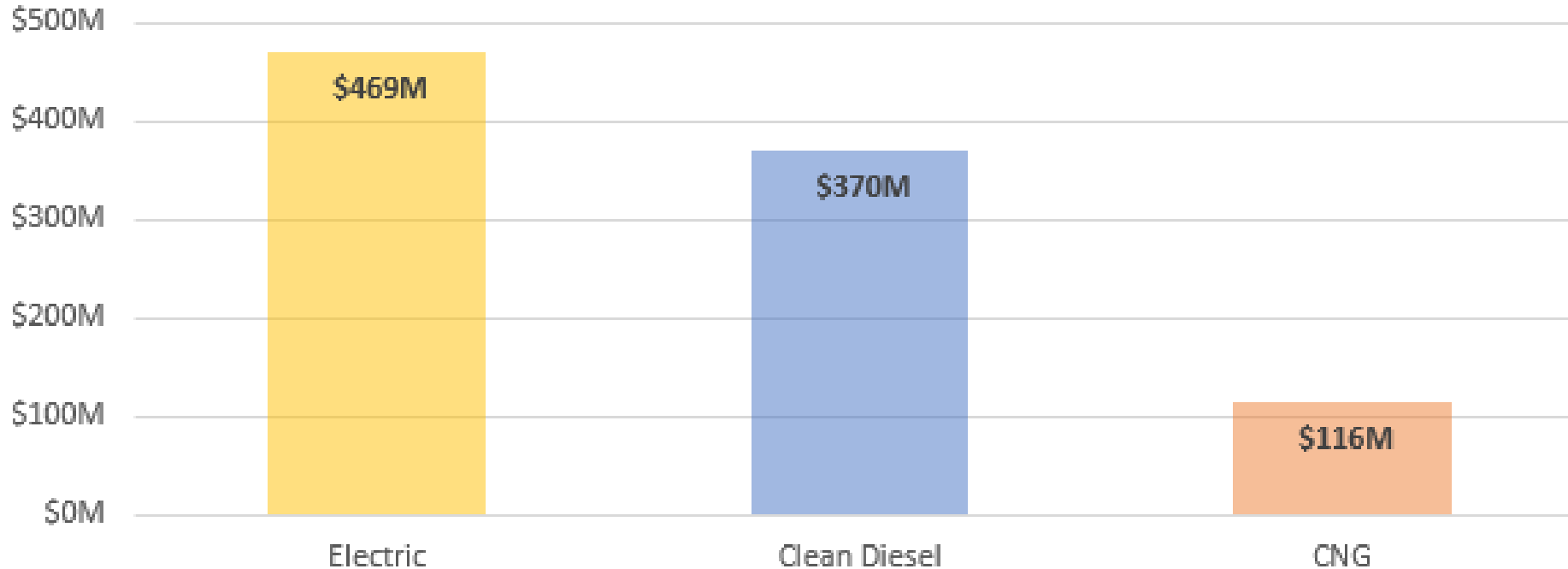
Maintenance

- Servicing and Troubleshooting of new Electrical Systems
- Diagnostic Systems
- Towing & Recovery



Implementation Cost

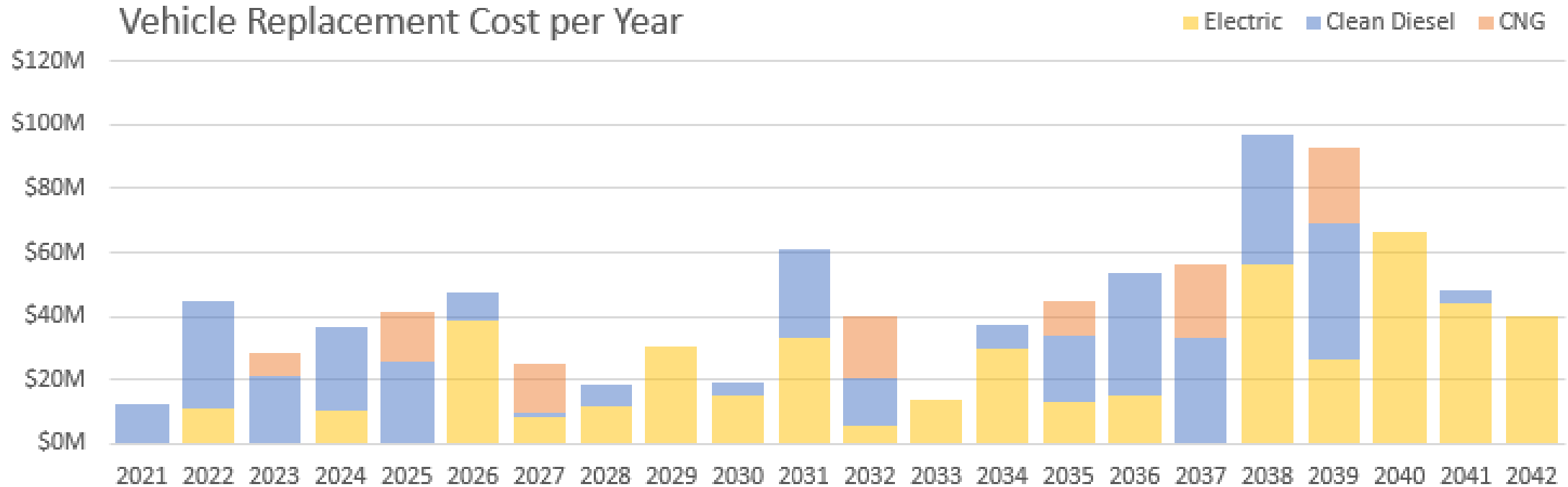
Total Cost by Propulsion Type
Years: 2021 - 2042



- Vehicle costs assume a 3.25% annual inflation increase. While current inflation rates are higher, the costing model does not speculate on uncertain conditions.



Implementation Cost



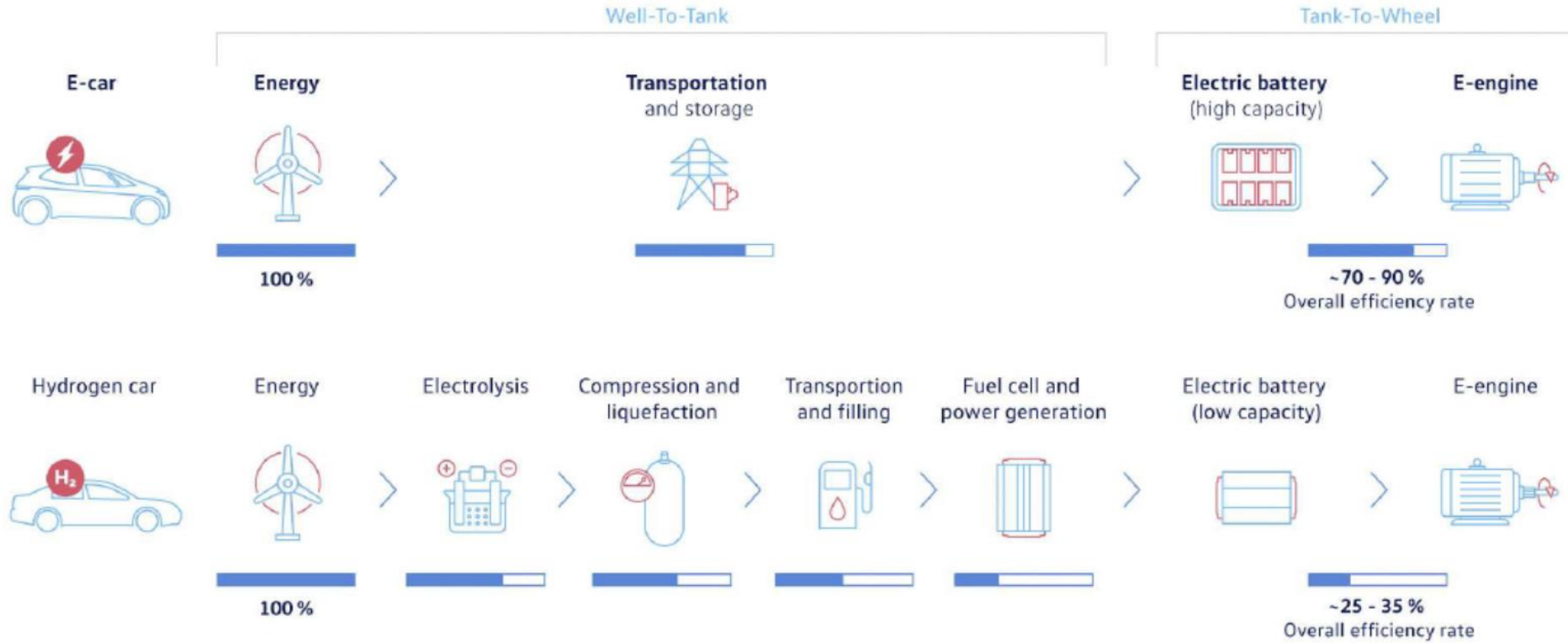
- Vehicle costs assume a 3.25% annual inflation increase. While current inflation rates are higher, the costing model does not speculate on uncertain conditions.



How Hydrogen Drive Works

Hydrogen and electric drive

Efficiency rates in comparison using eco-friendly energy



Source Volkswagen

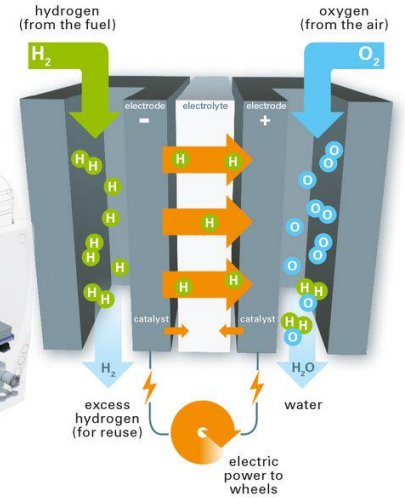
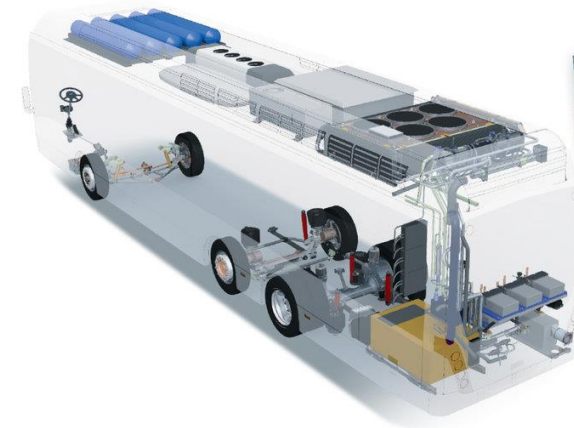
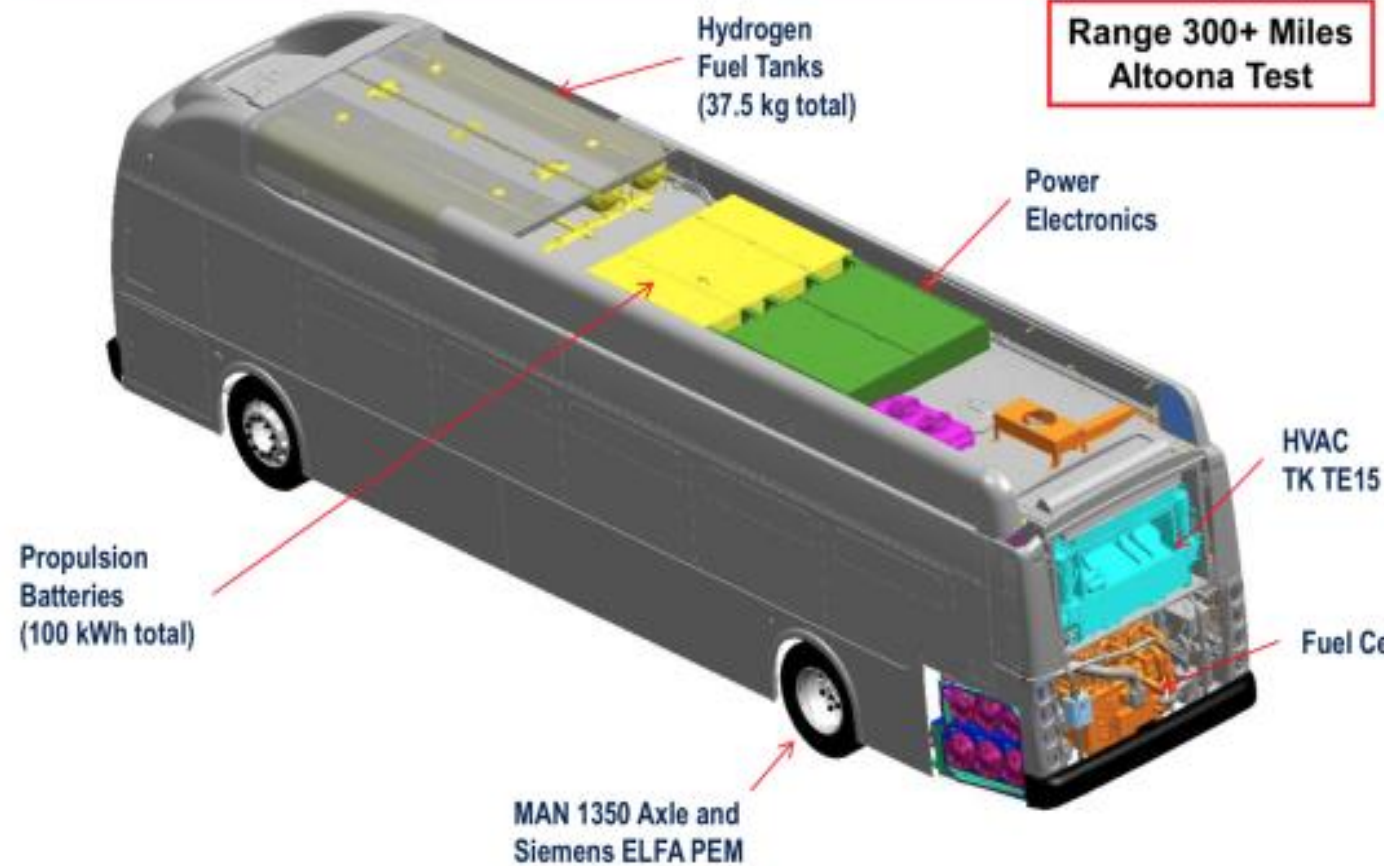


Fuel Cell Bus Architecture



Xcelsior XHE40 Fuel Cell Bus

Range 300+ Miles
Altoona Test



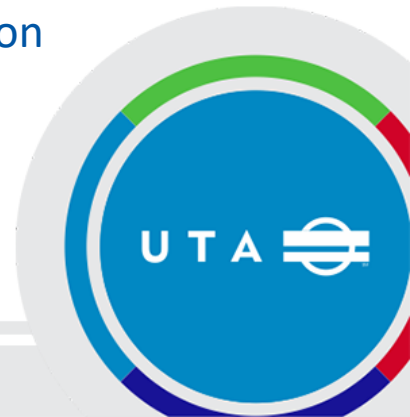
Bus Comparison: OCTA/UTA

Vehicle (Bus) System	Fuel Cell (OCTA)	CNG (UTA)	Clean Diesel (UTA)	Electric Battery (UTA)
Bus Purchase Cost (\$)	1.3 M	0.57 M	0.55 M	0.93 M
Miles per DGE	9.79	3.88	5.48	16.14
Miles Between Road Calls (Maint.)	7,124	12,769	16,869	19,653



Hydrogen Implementation Barriers

- Greater than 90% of the hydrogen produced today comes from steam methane reformation
 - This process uses high temperature and pressure to breakdown CNG (methane) into hydrogen (H₂) gas and carbon oxides (e.g. CO, CO₂- greenhouse gas)
- The 2nd most used technology to produce H₂ is the electrolysis of water
 - 45 percent of the energy (electricity) to produce H₂ is lost through the generation of heat
 - 55 percent of the remaining energy of H₂ is lost in the conversion to electricity, when combining with oxygen (O₂) to make water (H₂O) and to drive the electric motor
 - Only 25 – 35 percent of the energy in the process is converted to useable electricity for traction power
- The National Renewable Energy Laboratory (NREL) estimated cost for a hydrogen fuel station is \$5.05M (2019)



Hydrogen Next Steps

- Per H.B. 404 UTA will continue to monitor and evaluate business opportunities
- New hydrogen sources and opportunities are coming to the market
- More green hydrogen is becoming available

Green

U.S. Earmarks \$504 Million to Back World's Largest Hydrogen Hub

- Developers for Utah project gain DOE conditional commitment
- Hub to provide over 300 gigawatt-hours of clean energy a year



Infrastructure – Facilities Strategic Plan

- As the Wasatch Front’s population continues to grow, transit service will have to expand to meet the demand
 - Additional buses, light rail vehicles, and commuter trains will be required. The maintenance of UTA’s fleet and infrastructure is vital to provide safe and efficient service to the public
 - This plan provides a blueprint for UTA’s facilities as the region continues to grow
- As UTA expands its electric bus fleet, additional infrastructure will be needed

Utah Transit Authority Facilities Strategic Plan

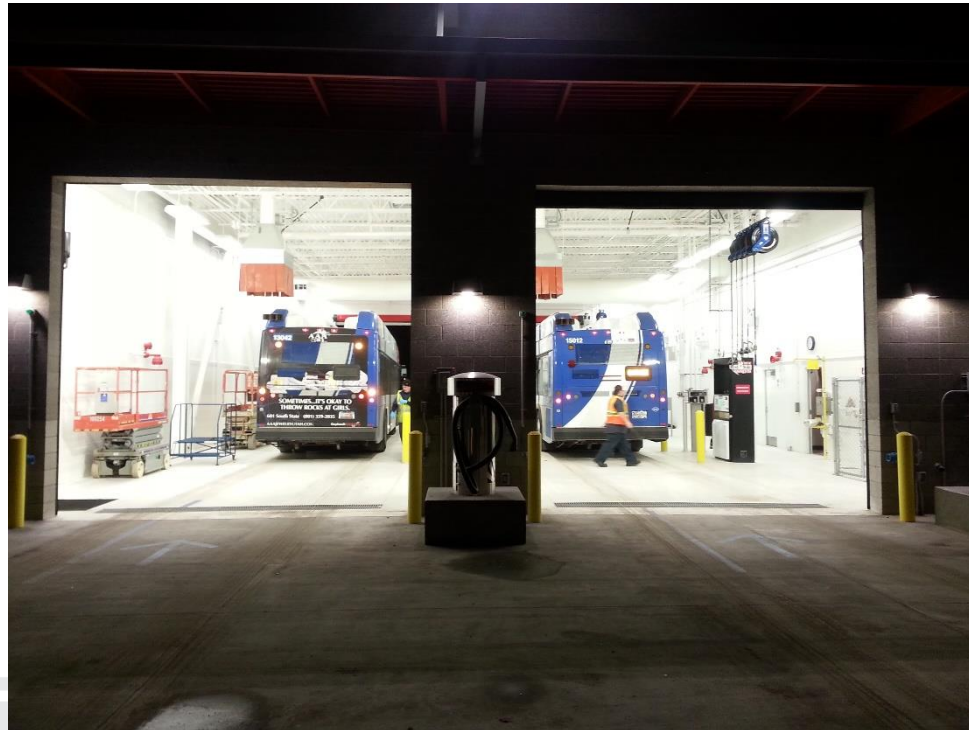
March 2020 Update

Version 1.0



Infrastructure – CNG Buses

- All CNG buses are planned to operate out of Depot District
- Existing fueling infrastructure will have to be expanded to support more CNG buses (new fuel pump included in the plan)



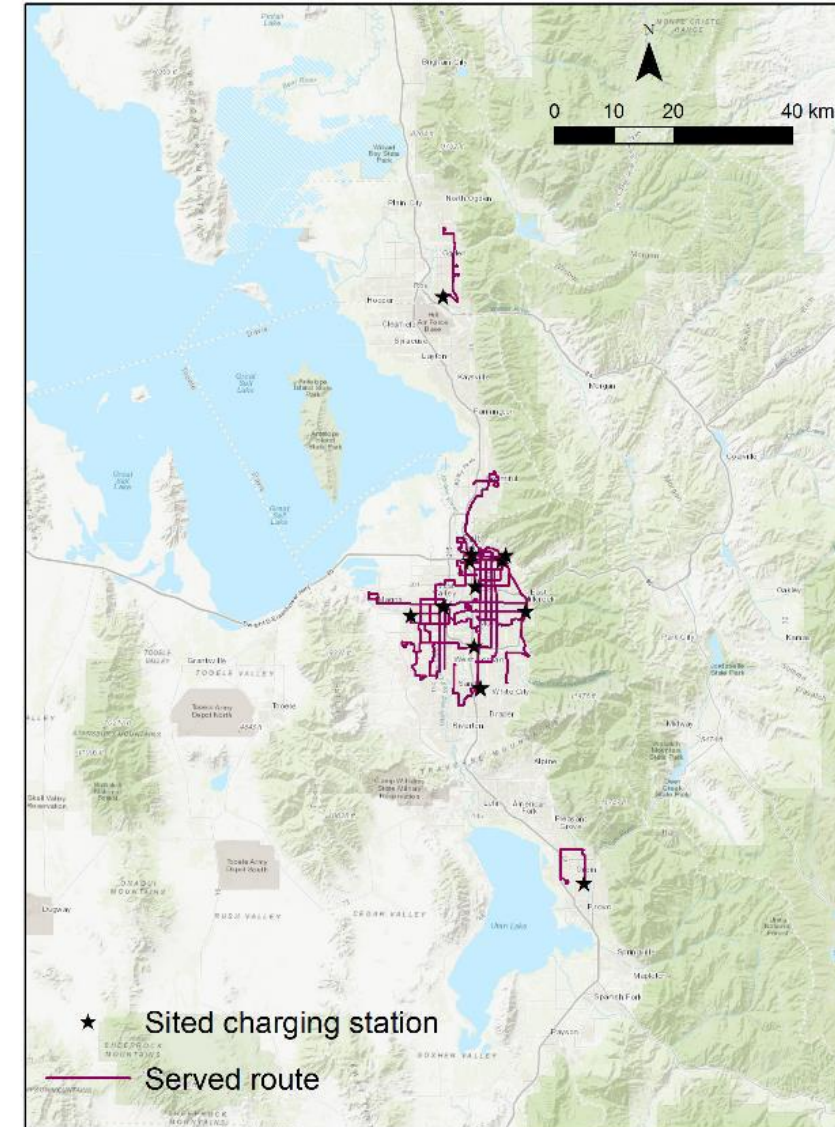
Infrastructure – Electric Buses

- Overhead and Depot Chargers support the battery electric buses



Infrastructure – Electric Buses

- On route chargers are being located based on study completed by the University of Utah
 - Equity was a consideration in the proposed deployment
 - Ideal locations for charging include West Valley Central, Millcreek, North Temple, SL Central, Murray, Ogden, and Orem (among others)



Transportation Electrification Forum

- This event will be an opportunity to discuss various endeavors to electrify transportation and create better air quality
 - It will include groups such as UTA, Rocky Mountain Power, academic researchers, FHWA, UDOT, WFRC, Envision Utah, CALSTART, CTE, government officials, and the public
- UTA will be able to discuss our efforts to electrify our bus fleet, and the benefits of doing so
- Stakeholders will be able to discuss their respective efforts regarding transportation electrification and air quality



Thank You



Other Business

- a. Next Meeting: Wednesday, August 10th, 2022 at 9:00 a.m.



Closed Session

- Strategy Session to Discuss Collective Bargaining



Recommended Action

(by acclamation)

Motion for a closed session for a strategy session to discuss collective bargaining



Closed Session



Open Session



Adjourn

