ATL BOARD MEETING WILL BEGIN MOMENTARILY

ATLANTA-REGION TRANSIT LINK AUTHORITY

ATL BOARD MEETING

February 2, 2023

ATL Board Meeting
February 2, 2023

I. Call to Order & Roll Call

II. Approval of the Board Minutes for January 5, 2023

III. Approval of the Executive Session Minutes for January 5, 2023

IV. Approval of the Agenda for February 2, 2023

V. Public Comment*

VI. ZEB Fleet Transition Plan – State of ZEB's in the Transit Market – Abby Marinelli

VII. Update on Branding Implementation – Ericka Bayonne

VIII. Ride Gwinnett Brand Roll Out – China Thomas, Gwinnett County

IX. MARTA Reach App/Pilot Project – Anthony Thomas, MARTA

X. Executive Director's Report

XI. New Business

XII. Call to Adjourn

Public Comment

ATLANTA-REGION TRANSIT LINK AUTHORITY

REGIONAL ZEB FLEET TRANSITION PLAN

TECHNOLOGY ASSESSMENT

Abby Marinelli
February 2, 2023

PROJECT BACKGROUND

- Through the Bipartisan Infrastructure Law, FTA is providing **$6.1 billion in discretionary funds** primarily targeted for Zero Emission Buses (ZEBs) from FFY2022 – FFY2026.

- A ZEB Fleet Transition Plan is a **required** component of the Bus and Bus Facilities and Low-No Emissions grant programs.

- Atlanta-Region Transit Link Authority (ATL) aims to enhance operator competitiveness for these programs by supporting their development of ZEB Fleet Transition Plans.

- ATL aims create a cohesive and coordinated approach for all regional fixed route public transit operators to transition their bus fleets to ZEBs.

WHY ZERO EMISSION BUSES?

- More efficient, lower energy consumption compared to ICE vehicles
  - Zero tailpipe emissions
  - Lower source emissions
- Lower maintenance costs
- Lower fuel cost in some parts of the country
- Quieter, preferred by passengers
- US-produced fuel source

ZEBs: BATTERY ELECTRIC AND HYDROGEN FUEL CELL

Battery Electric Buses (BEB)

- Readily available buses and charging infrastructure
- BEBs are already being incorporated into regional fleets (Xpress and MARTA)

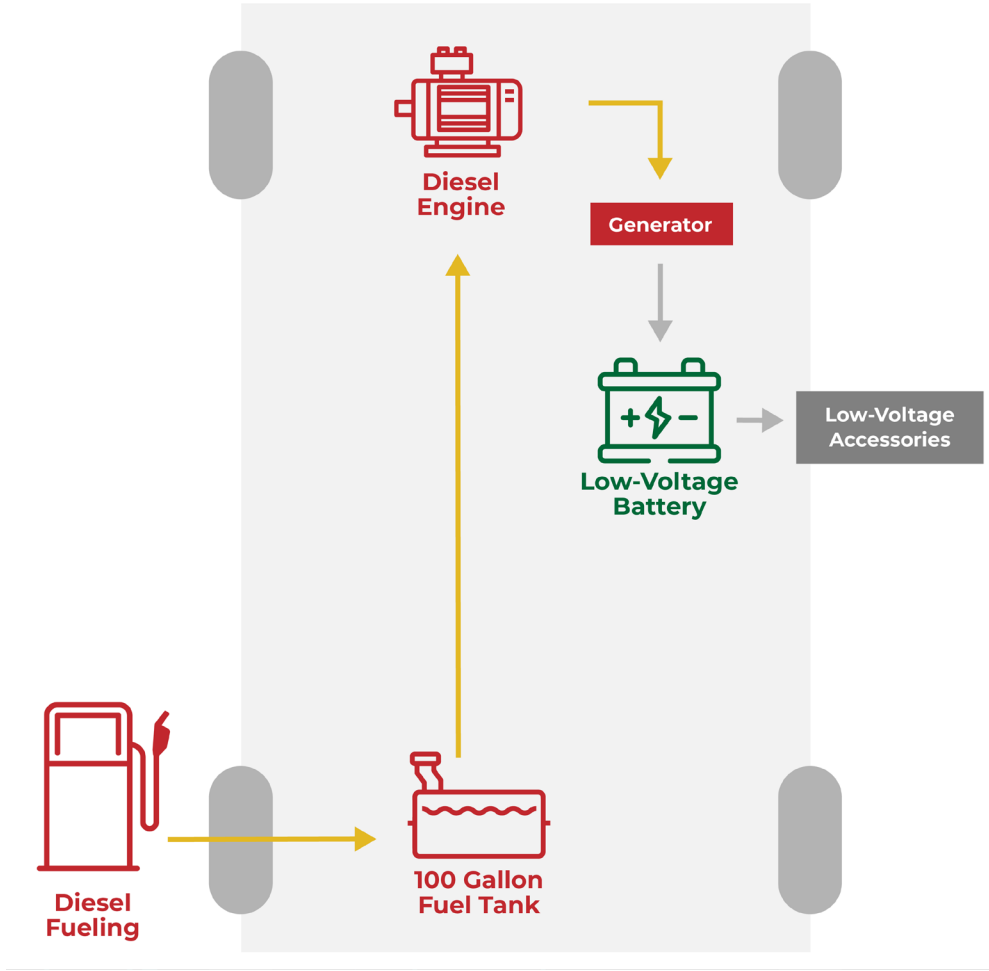
Hydrogen Fuel Cell Electric Buses (FCEB)

- Current difficulty around procuring or producing hydrogen efficiently
- No FCEBs currently in the region
- Quickly escalating investments across the country, including major investment in distribution centers by the Federal government.

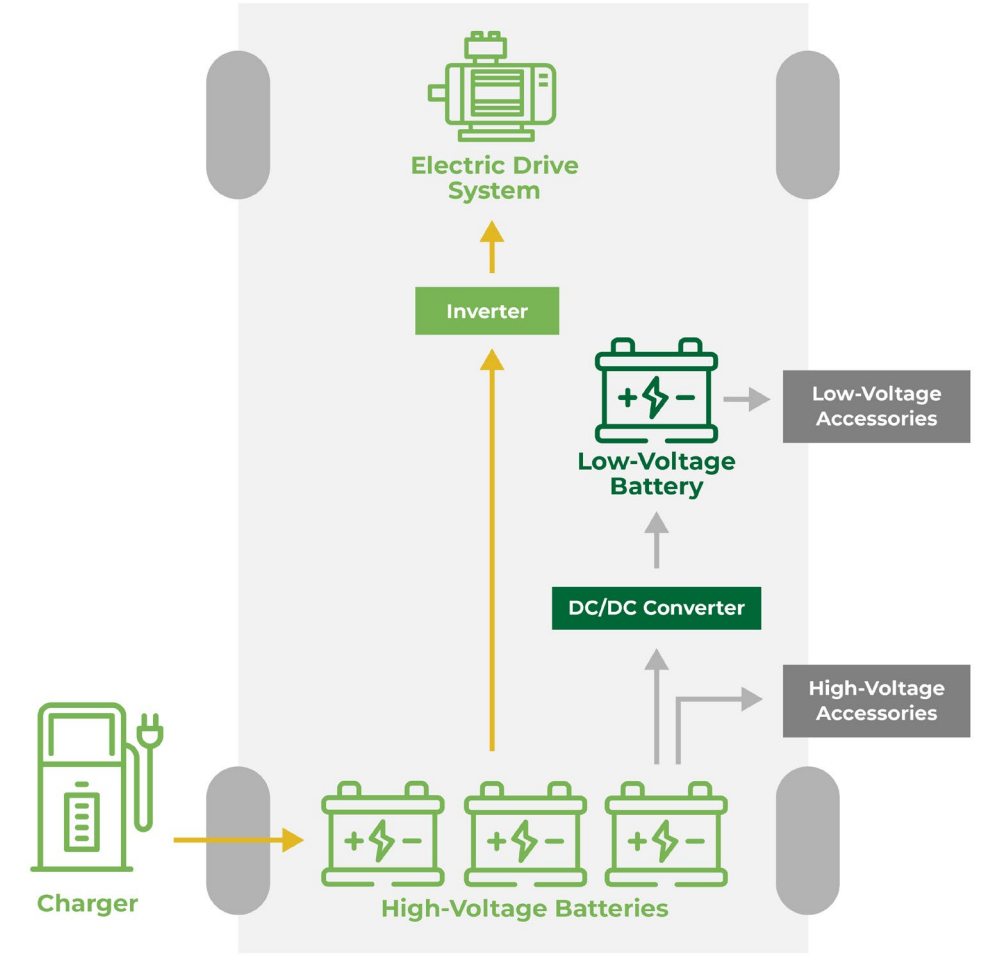
Battery Electric Buses (BEB)

BATTERY ELECTRIC BUSES

DIESEL VEHICLE

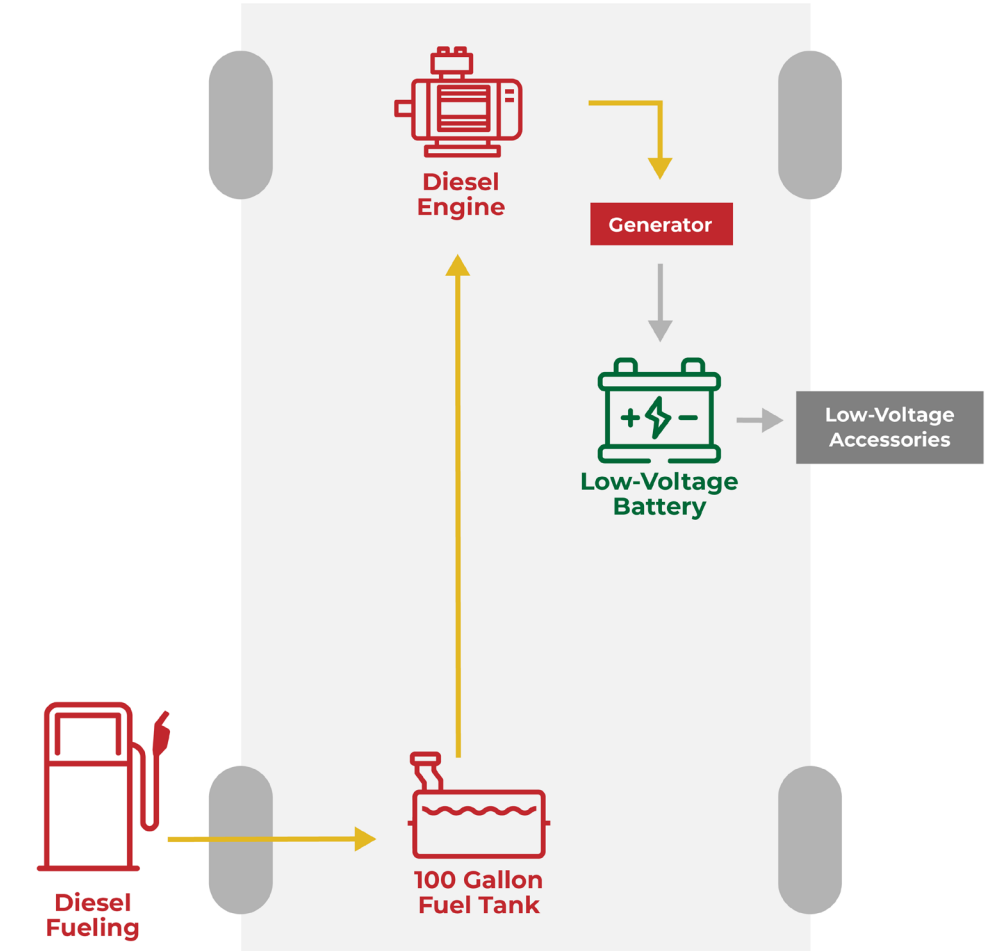


BATTERY ELECTRIC VEHICLE

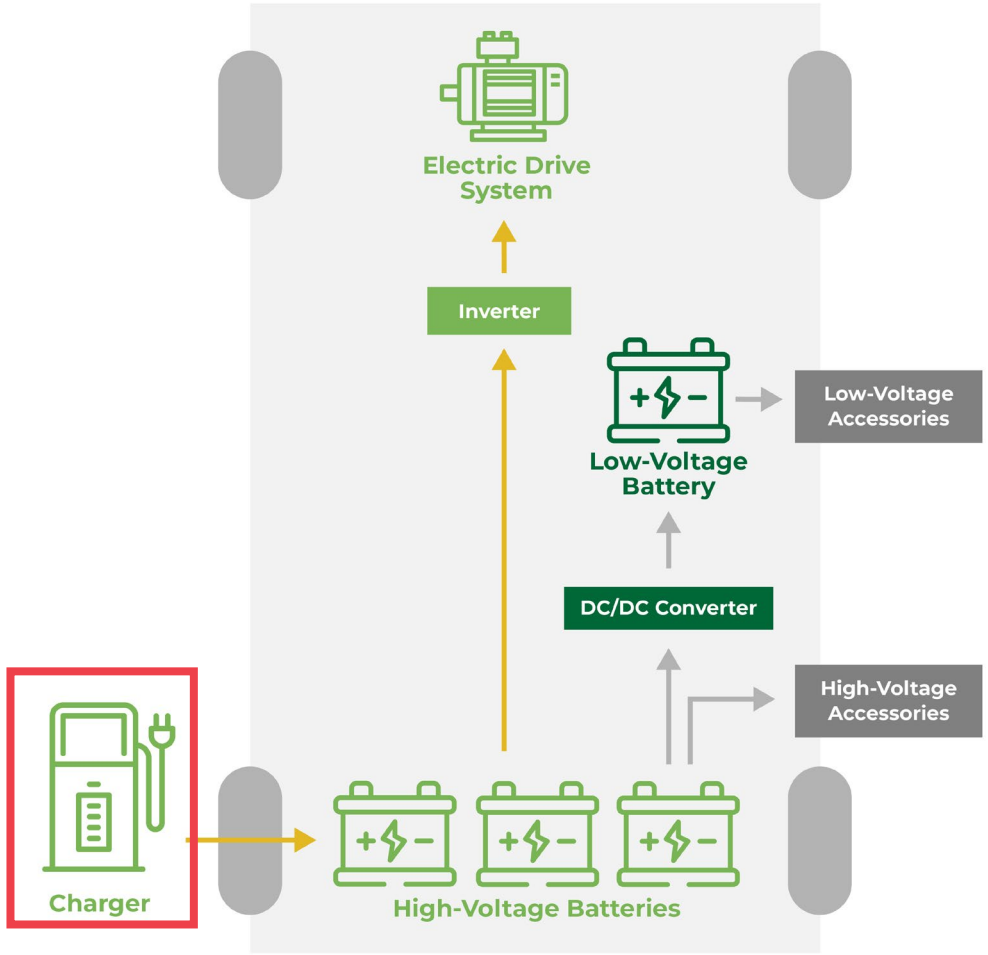


BATTERY ELECTRIC BUSES

DIESEL VEHICLE

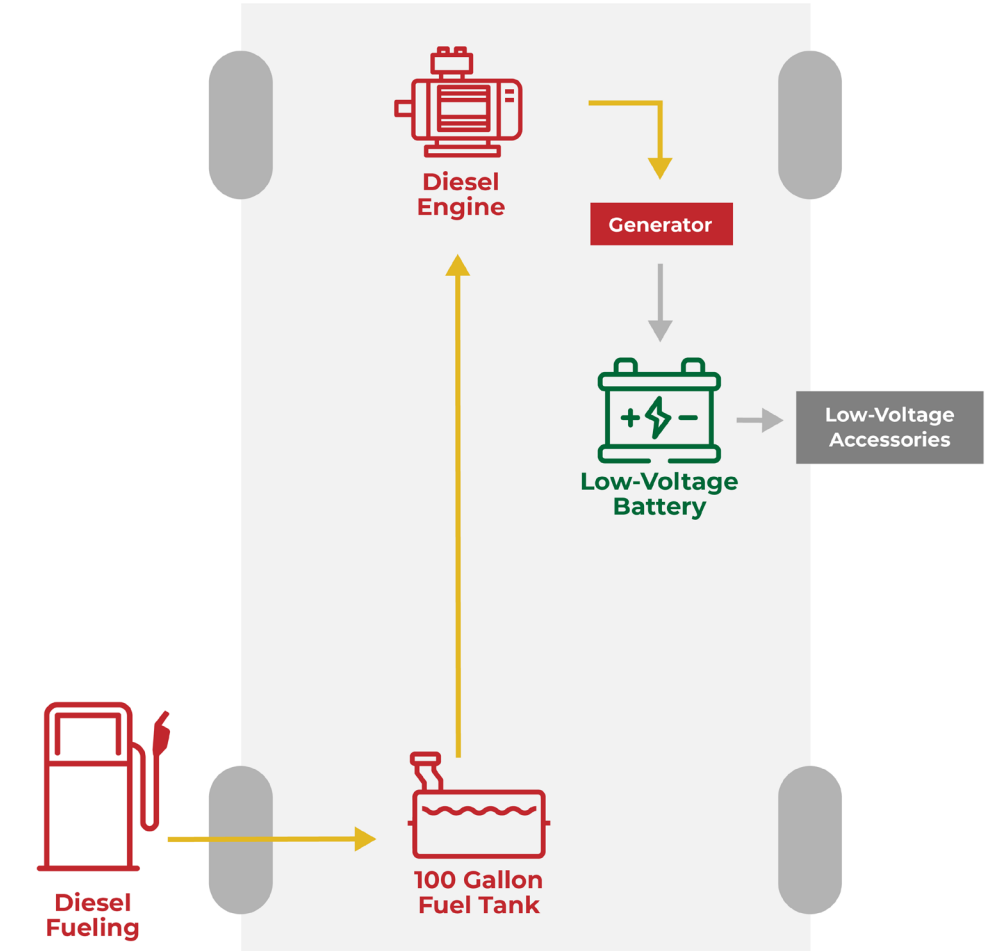


BATTERY ELECTRIC VEHICLE

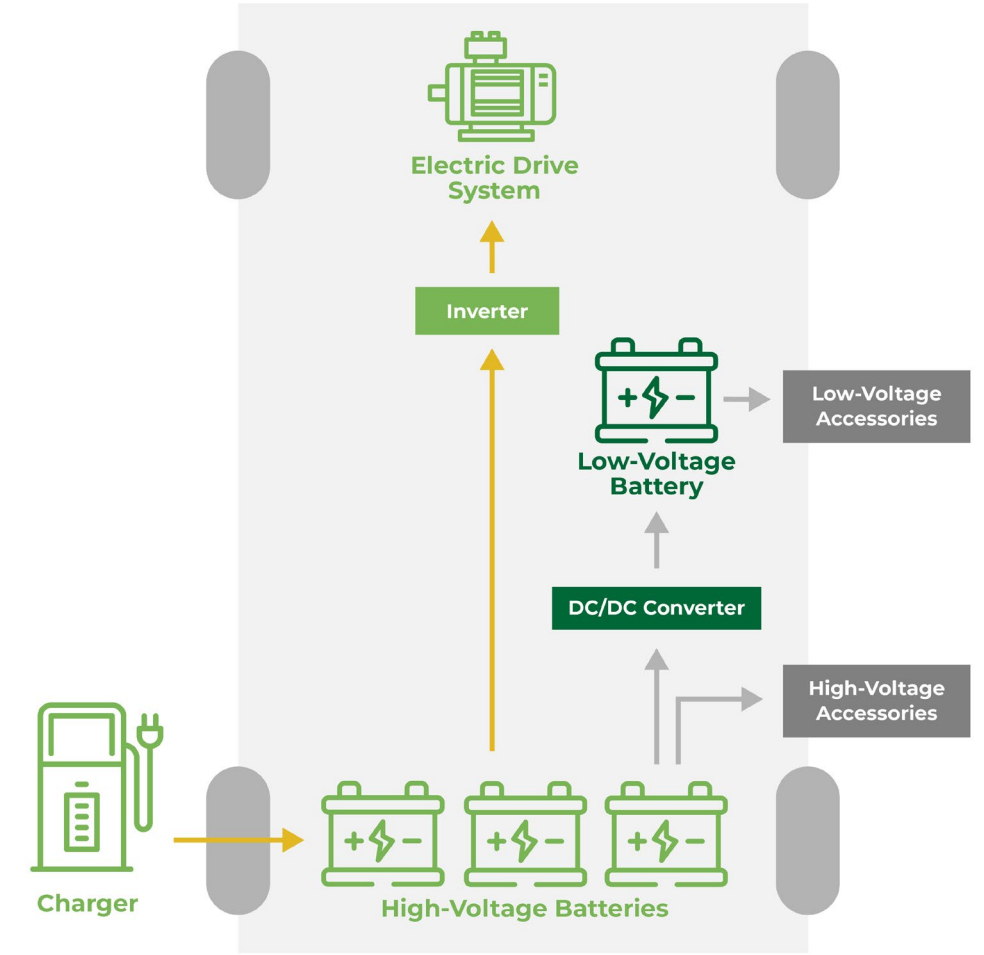


BATTERY ELECTRIC BUSES

DIESEL VEHICLE



BATTERY ELECTRIC VEHICLE

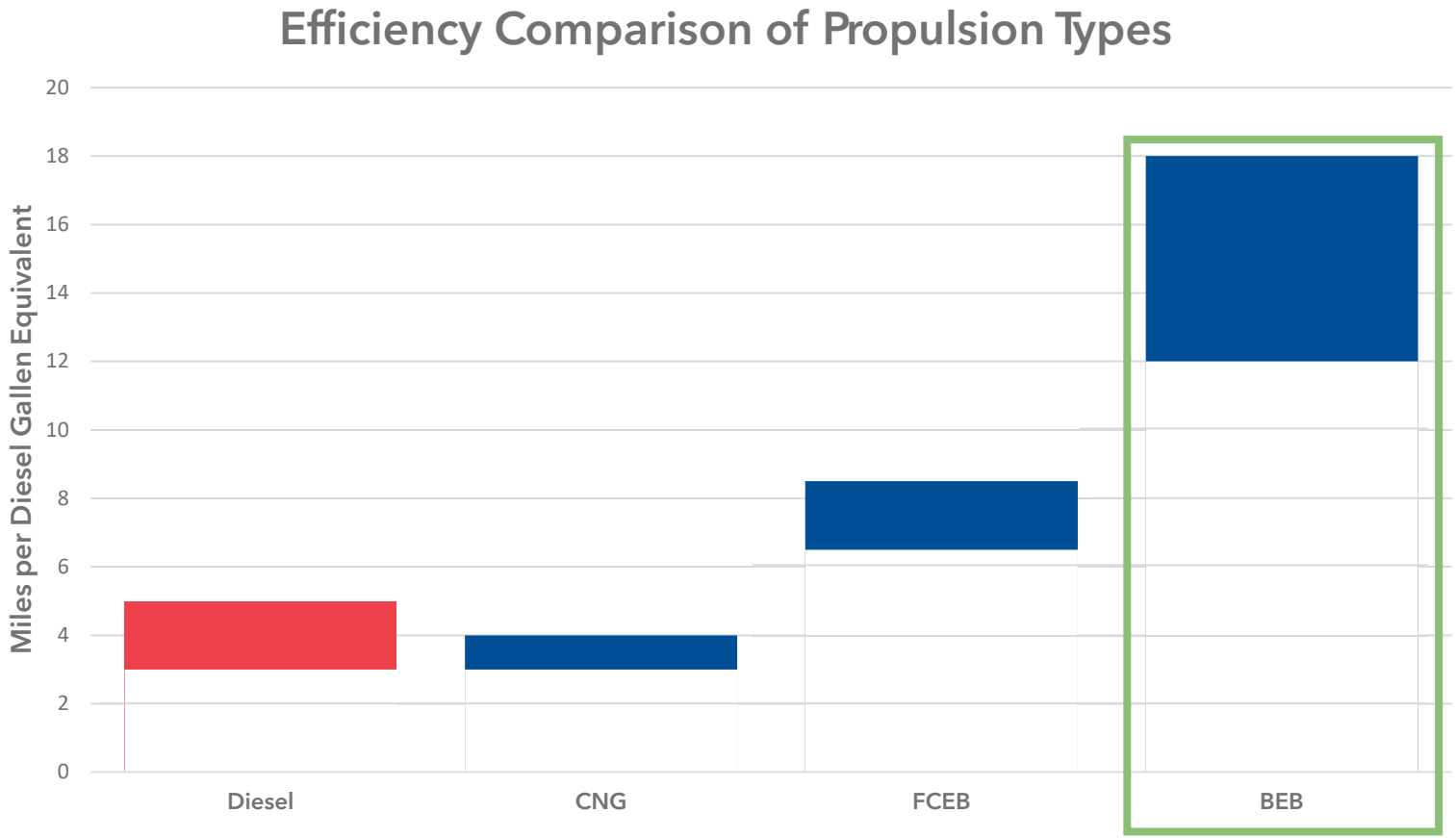


ATL

▶Time to refuel: ~3 hrs

EFFICIENCY COMPARISON

- Battery Electric Buses (BEB) are ~4x more efficient than diesel
- BEB efficiency and range are affected by driving habits and route characteristics.



CHARGERS

- ►Variety of charger styles offered by different OEMs
  - Plug-in chargers (Integrated and remote dispensers)
  - Overhead chargers (pantographs up and down)
  - Wireless/Inductive chargers
  - Scalable depot charging (typically overhead cable or pantographs)

CHARGERS

- Variety of charger styles offered by different OEMs
  - **Plug-in chargers (Integrated and remote dispensers)**
  - Overhead chargers (pantographs up and down)
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heliox **Xpress**

SIEMENS **MARTA**

Integrated charger and dispenser

Charging cabinet with **Remote** dispenser

ATL

CHARGERS

- Variety of charger styles offered by different OEMs
  - Plug-in chargers (Integrated and remote dispensers)
  - **Overhead chargers (pantographs up and down)**
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heliox
Xpress

SIEMENS
MARTA

Pantograph Up
Extendible charging arm mounted on bus

Pantograph Down
Charging arm mounted on charging structure

ATL

CHARGERS

►Variety of charger styles offered by different OEMs

- Plug-in chargers (Integrated and remote dispensers)
- Overhead chargers (pantographs up and down)
- **Wireless/Inductive chargers**
- Scalable depot charging (typically overhead cable or pantographs)

In-ground with no physical connections or overhead obstructions.
Alignment is critical.

CHARGERS

►Variety of charger styles offered by different OEMs

- Plug-in chargers (Integrated and remote dispensers)
- Overhead chargers (pantographs up and down)
- Wireless/Inductive chargers
- **Scalable depot charging (typically overhead cable or pantographs)**

Overhead Cable

Reel, boom, or hanging styles

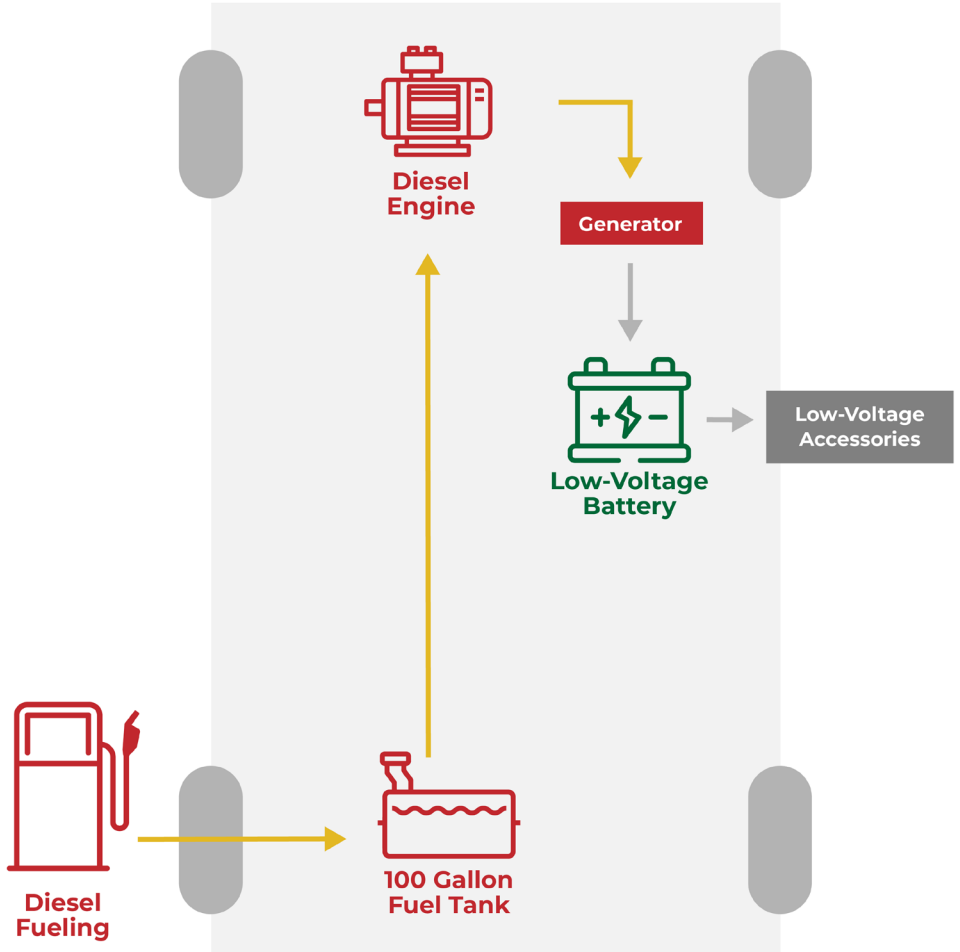
Overhead Pantograph

Automated operation with minimal yard obstructions

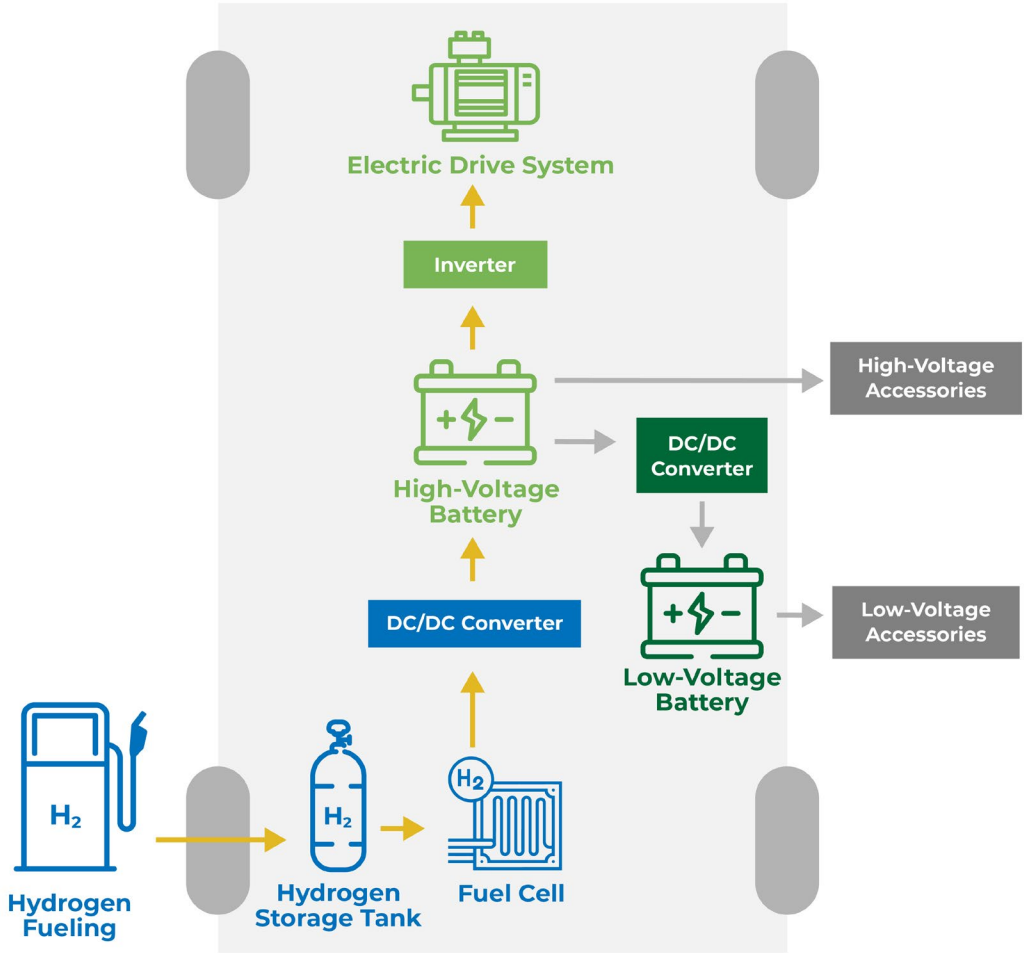
Hydrogen Fuel Cell Electric Buses (FCEB)

HYDROGEN FUEL CELL ELECTRIC BUSES

DIESEL VEHICLE

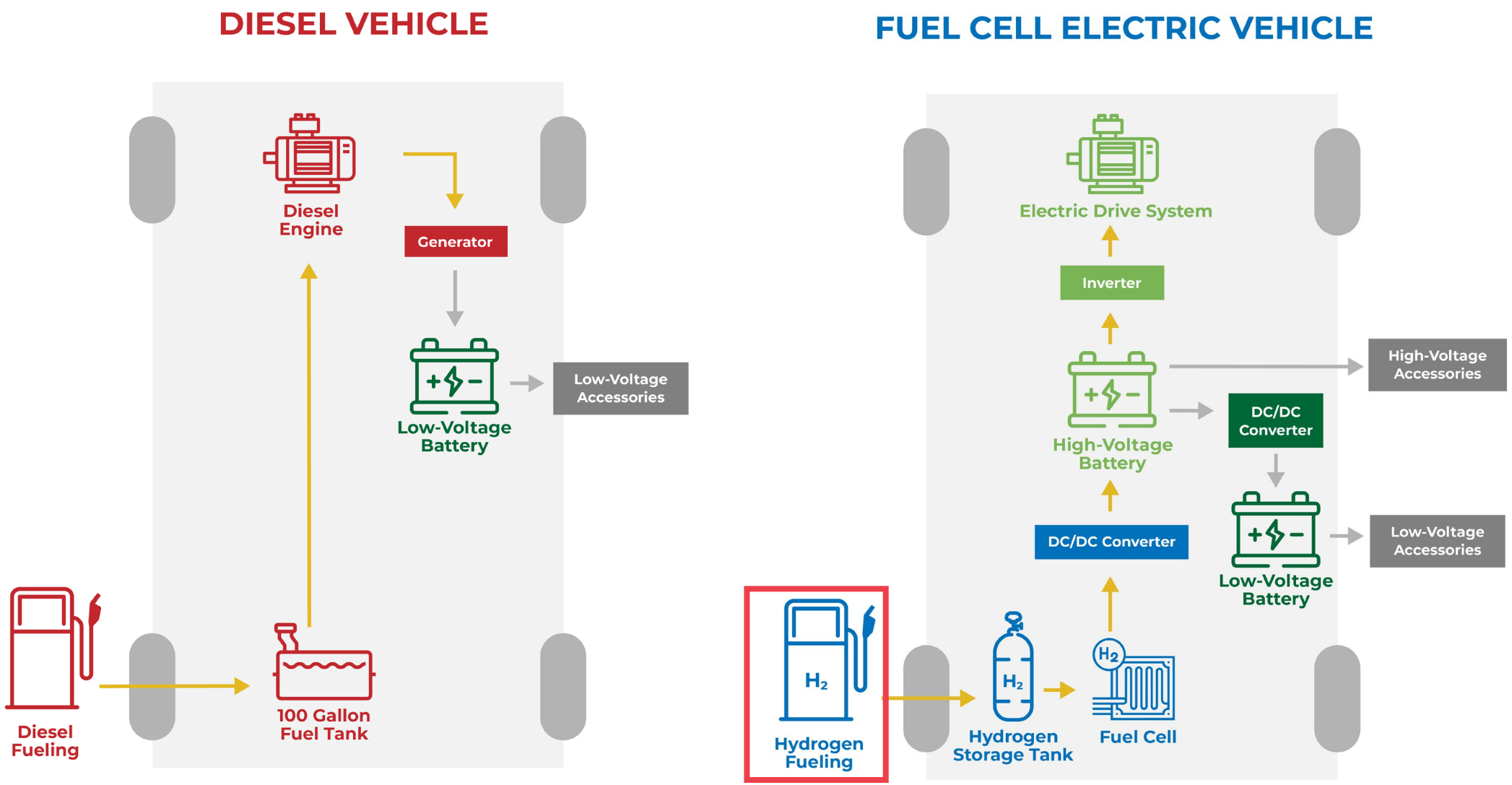


FUEL CELL ELECTRIC VEHICLE



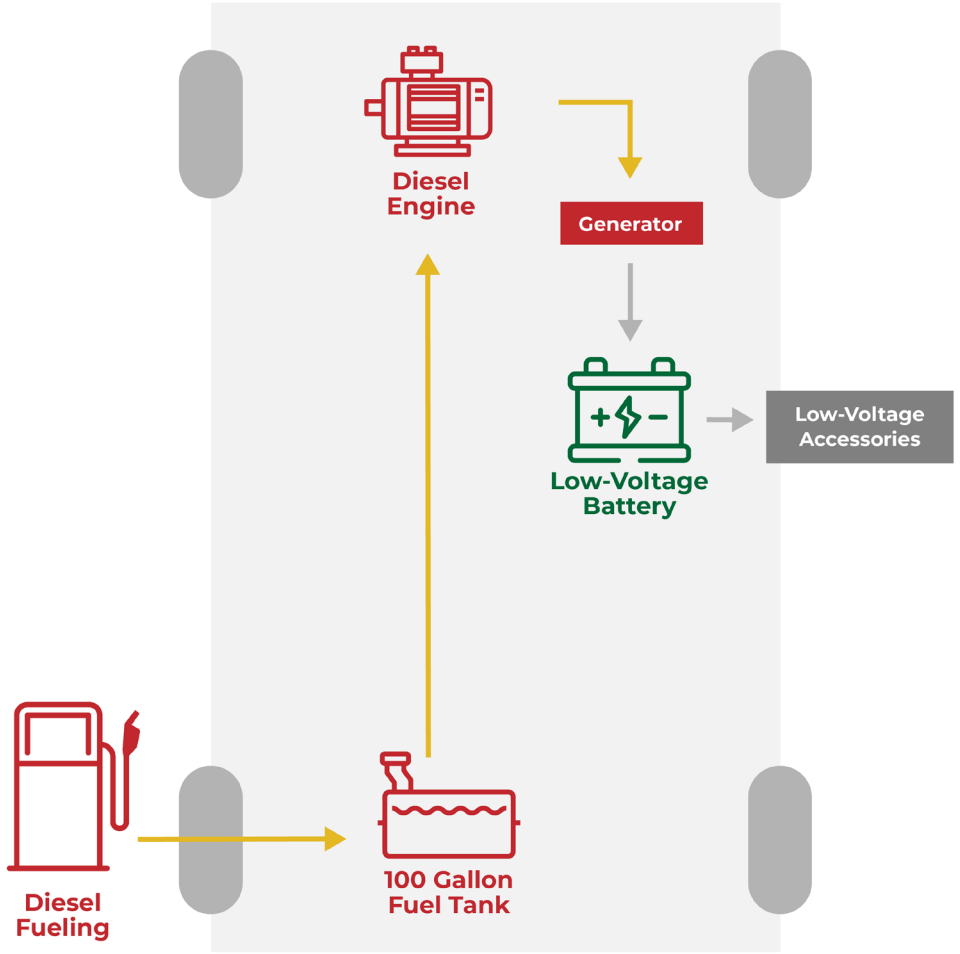
ATL

HYDROGEN FUEL CELL ELECTRIC BUSES

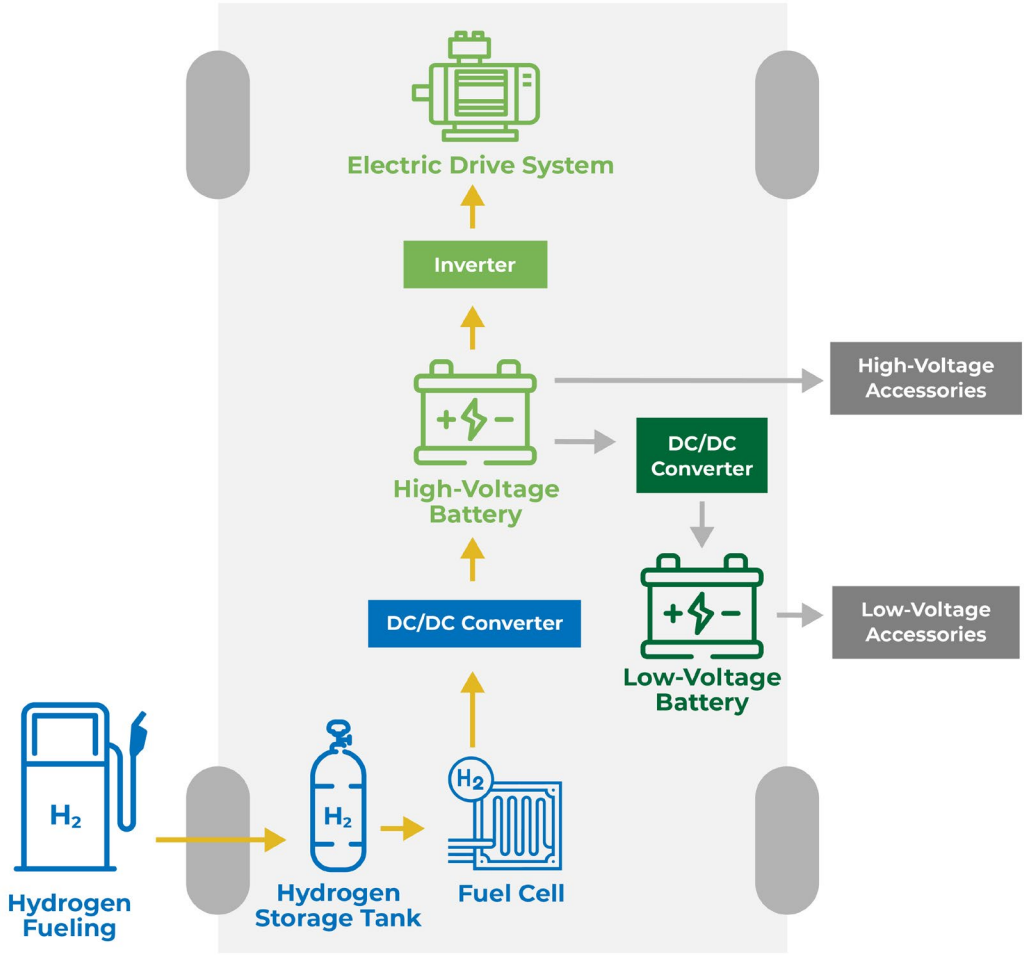


HYDROGEN FUEL CELL ELECTRIC BUSES

DIESEL VEHICLE



FUEL CELL ELECTRIC VEHICLE

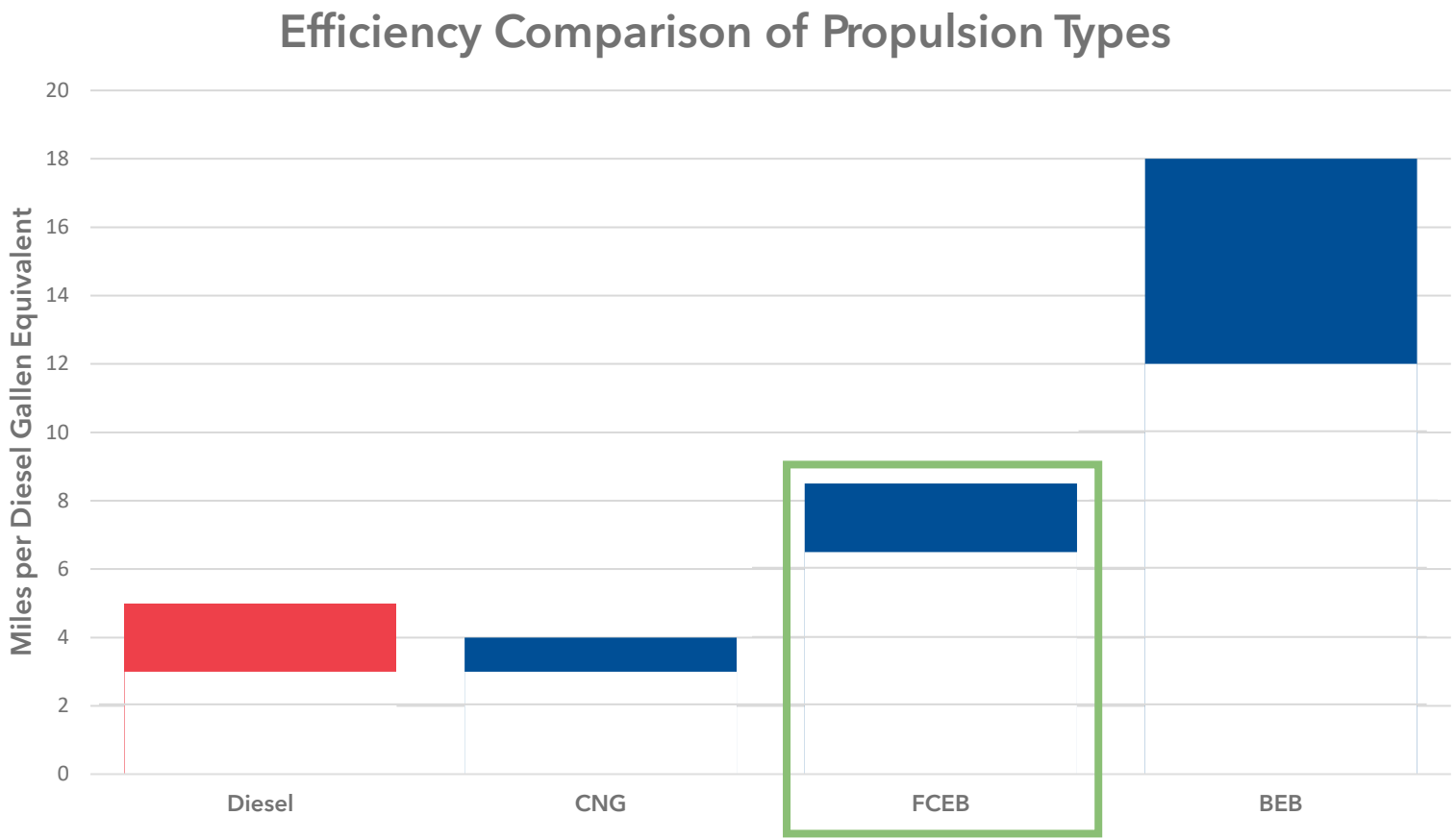


ATL

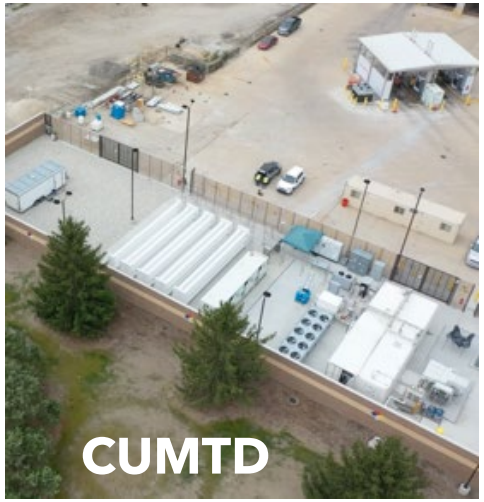
▶Time to refuel: 10 min

EFFICIENCY COMPARISON

- Fuel Cell Electric Bus (FCEB) are less efficient than BEB but more efficient than Diesel
- FCEB efficiency and range are not affected to the same extent by driving habits and route characteristics.



ACTIVE TRANSIT FCEB STATIONS

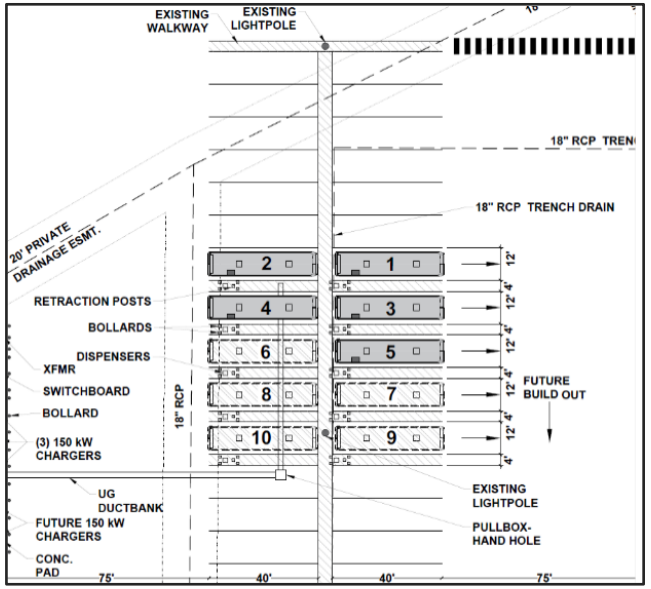


Approximately 36’ x 85’ footprint

ZEB FACILITY PLANNING

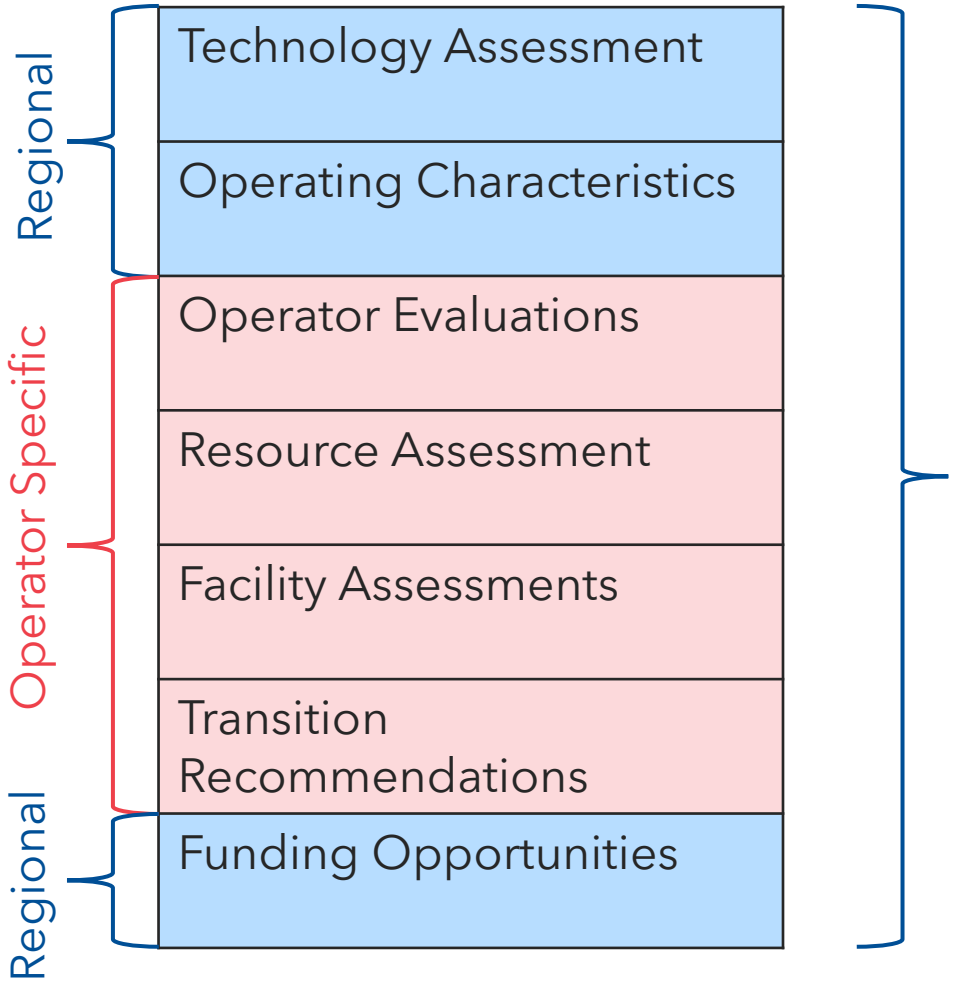
►Key considerations

- Changing service needs (overhead servicing, battery lifts)
- Increased ventilation, leak detection, fire detection, fall protection
- Operational flow such as vehicle movements (e.g. counterclockwise, minimize backing)
- Collaboration with the local utility company
- Charge management system



Regional ZEB Fleet Transition Plan

SCOPE ELEMENTS



Regional ZEB Fleet Transition Plan

ATL ATLANTA-REGION TRANSIT LINK AUTHORITY

ATL

PROJECT PARTNERS

- This includes providing support to the following agencies in developing their Zero Emission Fleet Transition Plan:

Local Service	Commuter Service
CobbLinc	CobbLinc
Ride Gwinnett	Ride Gwinnett
Cherokee Area Transit	ATL Xpress
Henry County Transit	
Connect Douglas	
MARTA*	

*This study will not directly analyze MARTA's fleet, instead it will incorporate MARTA's independent results at the regional scale.

PROJECT PARTNERS

- This includes providing support to the following agencies in developing their Zero Emission Fleet Transition Plan:

	Local Service	Commuter Service
353 buses	CobbLinc	CobbLinc
	Ride Gwinnett	Ride Gwinnett
	Cherokee Area Transit	ATL Xpress
	Henry County Transit	
	Connect Douglas	
539 buses	MARTA*	

*This study will not directly analyze MARTA's fleet, instead it will incorporate MARTA's independent results at the regional scale.

PROJECT TEAM

ARCADIS IBI GROUP + cte + TRUEPANI

35+
Bus Operations & Maintenance Facilities

75+
Transit Agencies

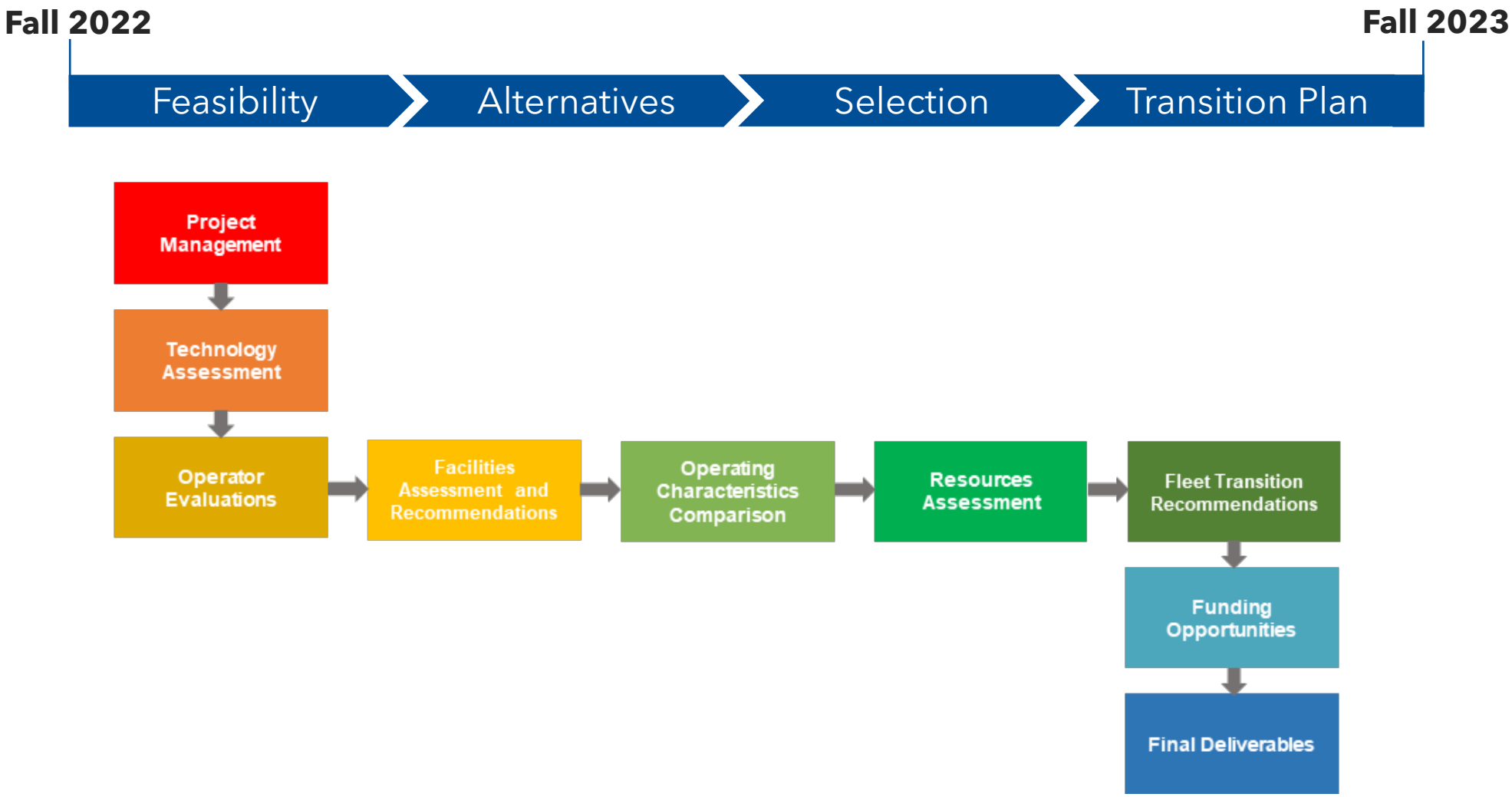
25+
ZEB Transition Plans

70+
BEB Deployments

30+
Hydrogen Fueling Stations

ATL

ESTIMATED PROJECT TIMELINE



Questions?

ATL ATLANTA-REGION TRANSIT LINK AUTHORITY

UPDATE ON BRANDING

Ericka Bayonne, Ph.D.

February 2, 2023

RESOLUTION APPROVED ON JANUARY 6, 2022

- **For Transit Operators-** Incorporate transit operator preferred color palette into the cobranding on legislatively required vehicle assets.

- **For Common Regional Assets-** Incorporate kaleidoscope compass on common regional assets such as the ATL Rides app, Breeze fare media etc.

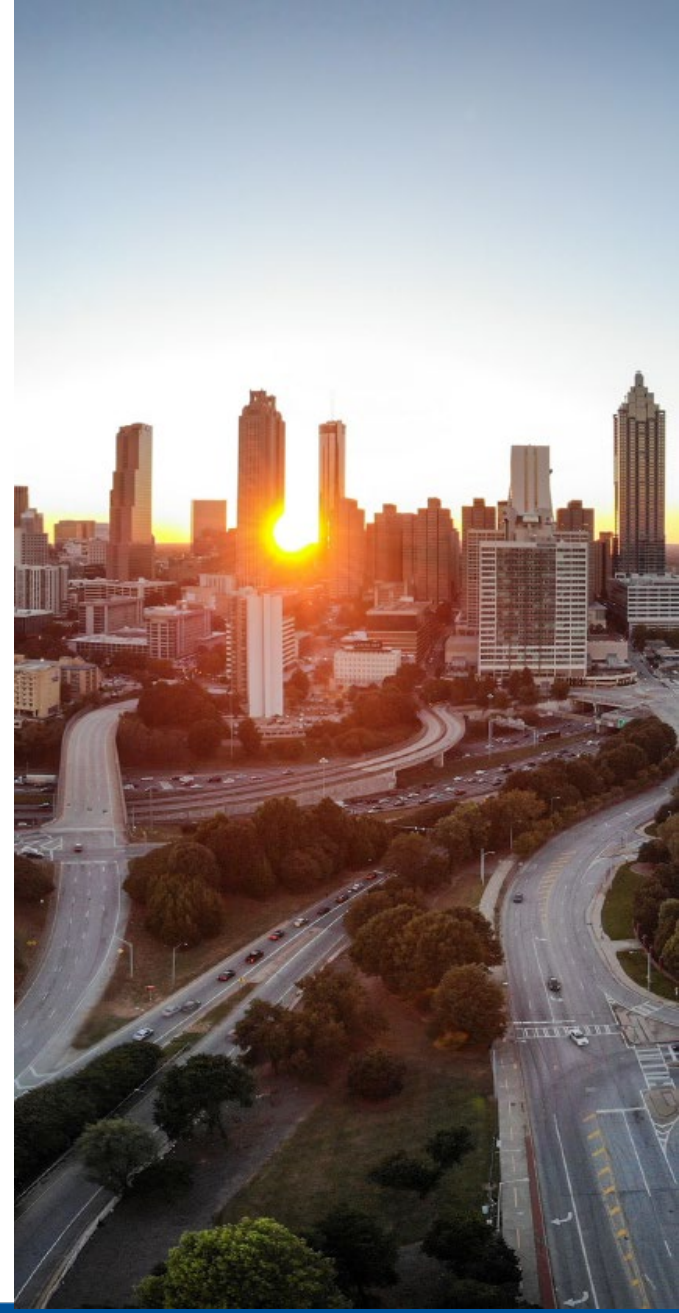
ATL RIDES

COBRANDING ARCHITECTURE FINAL REPORT

- Seven transit operators notified the ATL that they would require financial assistance and installation has been completed.

- The seven transit operators that were provided funding for the manufacturing of the logo and or installation were: Cobb, Douglas, Henry, Paulding, Gwinnett, Forsyth and Coweta.

- Current operating transit partners in compliance with legislation:



HB 930 ATL BRANDING EFFORTS

ATL Branding Efforts Under HB 930:

- ✓ ATL Logo
- ✓ Brand Style Guidelines
- ✓ Development of ATL digital communications platforms (website, social media, email)
- ✓ Development of ATL graphic identity (print, publication)
- ✓ ATL Branding of MARTA buses
- ✓ ATL Branding of Xpress coaches
- ✓ ARTP Branding Recommendation of Co-branding
- ✓ Board Approval of Branding Architecture
- ✓ Scope of Work & Vendor Selection for Implementation
- ✓ Budget for Implementation
- ✓ Installation Process
- ✓ ATL Branding of Cherokee Area Transportation System (CATS), CobbLinc, Connect Douglas, Coweta Transit, Forsyth County Dial-A-Ride, Gwinnett County Transit, Henry County Transit, and Paulding Transit.

BRANDING COMPLETED!


2207
RIDE
Gwinnett
ATL


ATL
COBB
LINC


HENRY COUNTY TRANSIT 770-288-RIDE
ATL


ATL
RideGwinnett.com
RIDE
Gwinnett

ATL


ATL
COWETA COUNTY
TRANSIT
3957


Xpress
ATL


ACCESS
FORSYTH
ATL
SERVING FORSYTH COUNTY
770-781-2155
2094

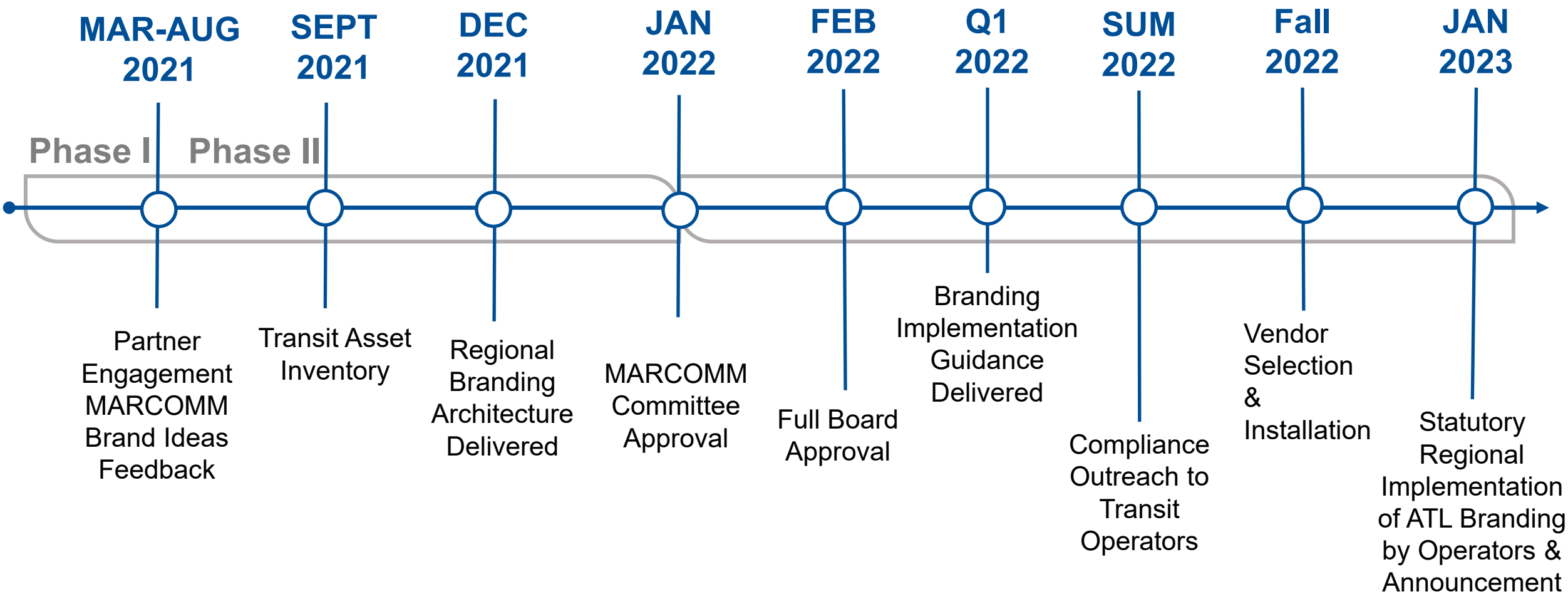

770-345-6238
Cherokee
County
CATS
ATL

ATL

marta®

ATL

PROJECT TIMELINE



FINAL STEPS

- Distributed Media Kits to transit operators on 1/20/23
- Announced full compliance on 1/25/23
- Brand Style Guide will be updated.

"Remember to celebrate milestones as you prepare for the road ahead."

– Nelson Mandela

ATL

Rebranding Gwinnett's transit system

China Thomas
February 2, 2023

Gwinnett

Gwinnett's transit system

- Formally Gwinnett County Transit
- Introduced in 2001 with commuter bus service to downtown Atlanta
- Local bus service began in 2002
- Currently has seven local routes, five commuter routes, complimentary paratransit for local routes, three Park and Ride locations, and one transit center

Gwinnett

Transit in Gwinnett throughout the years

- Extensive efforts into improving the current local fixed routes and commuter established in 2001
- Successful pilot microtransit program tested in Snellville in 2019
- Gwinnett Transit Development Plan (TDP) in 2022

Gwinnett


OUT OF SERVICE
GWINNETT COUNTY TRANSIT
9029
WiFi
GWINNETT COUNTY TRANSIT

Meet Ride Gwinnett

- Rebranding aligns with County's vibrant brand
- Connects residents to the places they need to go
- Increases awareness about mobility options across the county

RIDE Gwinnett

Gwinnett


RIDE GWINNETT
420X
RIDE
Gwinnett
ATL

Hitting the roads

- Currently in procurement phase
- Includes transit website, buses, and bus stop shelters and signs
- Rollout through 2023

Gwinnett


2207
RIDE GWINNETT
RIDE
Gwinnett
ATL

What's next?

- Three new local routes and two microtransit service zones approved in 2023 County budget
- Title VI public meetings in February
- Fall in Love with Transit event for business community

Gwinnett

Coming soon

- Transit expansion
- Additional planning efforts to further expand transit network
- TDP – Public meetings and stakeholder roundtables

Gwinnett

Gwinnett

Questions?

marta reach

Georgia Tech

On-Demand Multimodal Transit

Pilot Overview

February 2, 2023

ATL Board of Directors

marta reach

Pilot Summary

- Six-month pilot started on **March 1st, 2022**
  - Service ended on **August 31st** at 7:00pm
- Over 7,580 total trips serving **8,335** riders[1]
- **739** unique accounts served
- **Average wait time:** ~7 minutes
  - Target was <= 15 minutes
- **Average travel time:** ~9 minutes

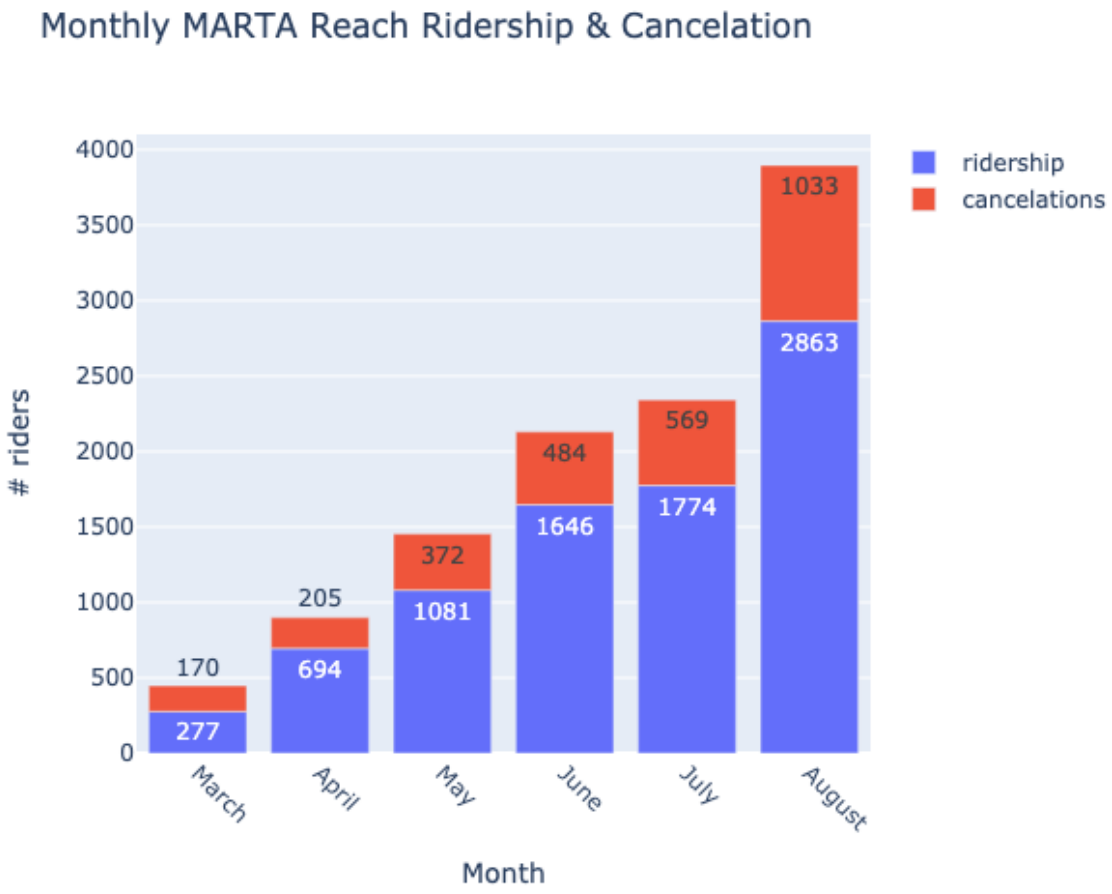
The end of service is not the end of the Reach pilot.

Evaluation is the second half of any successful service pilot.

Photo of Reach vehicle

[1]*Patrons can request trips for up to 4 people. "Riders" are the total number of patrons served through the service.*

Ridership Overview



Note: This is a graph of riders, not trips.

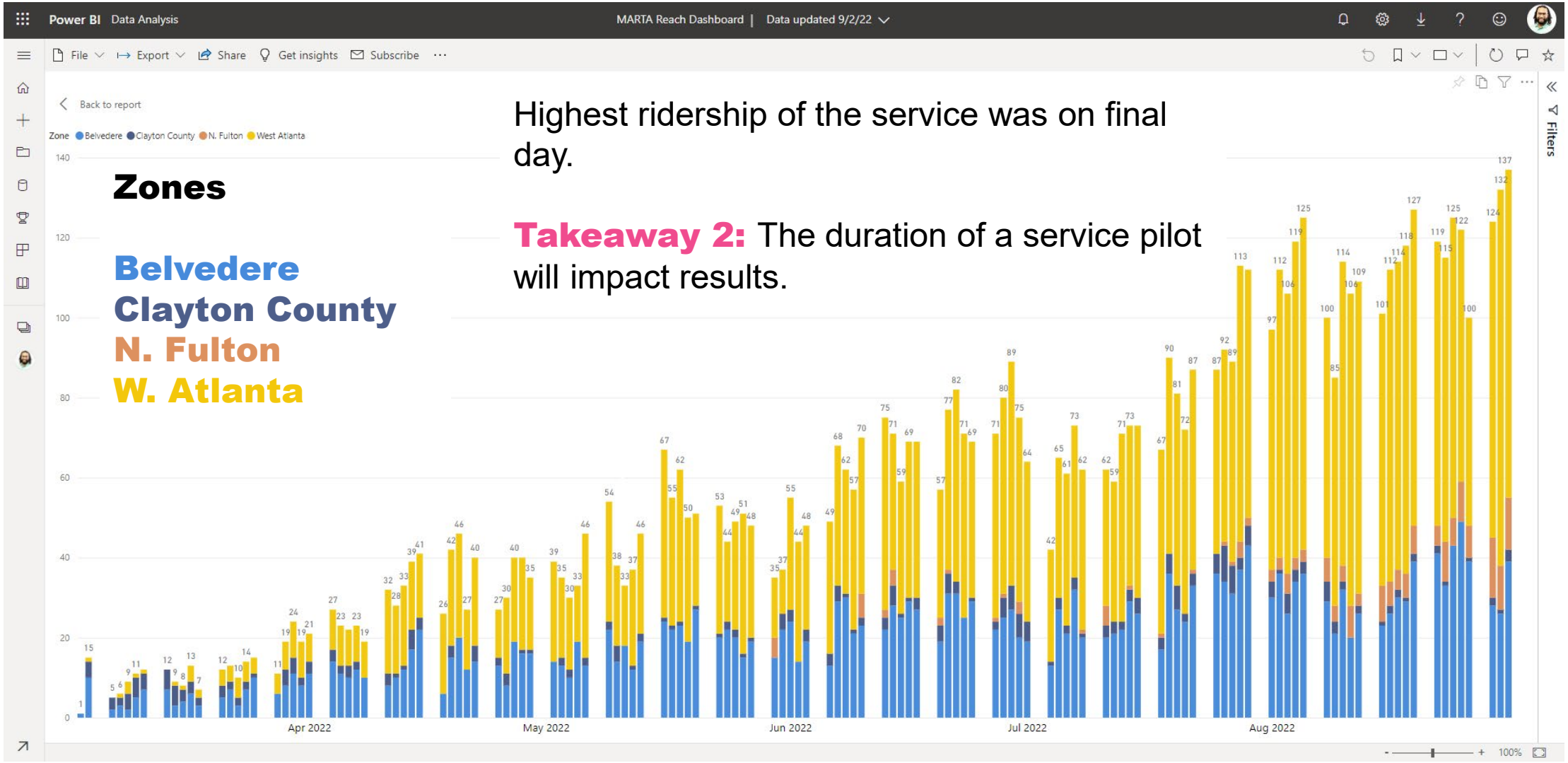
~35% of all Reach trips were taken in August.

Takeaway 1: There is a lag between the introduction of a new service and ridership response.

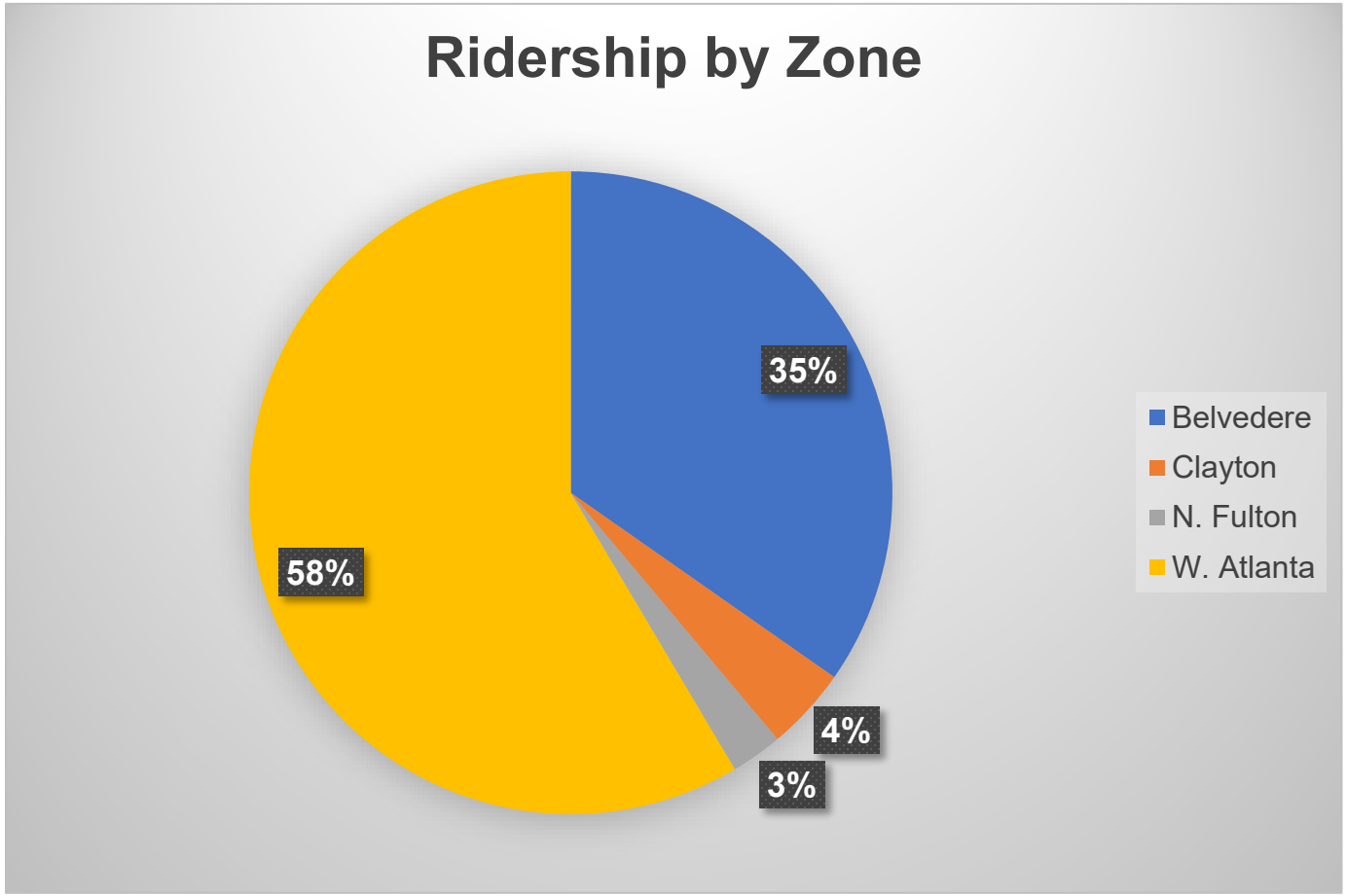
**West Atlanta and Belvedere zones expanded on May 16th*

***Clayton expansion and introduction of N. Fulton zone on May 30th*

Zonal Ridership



Zonal Ridership

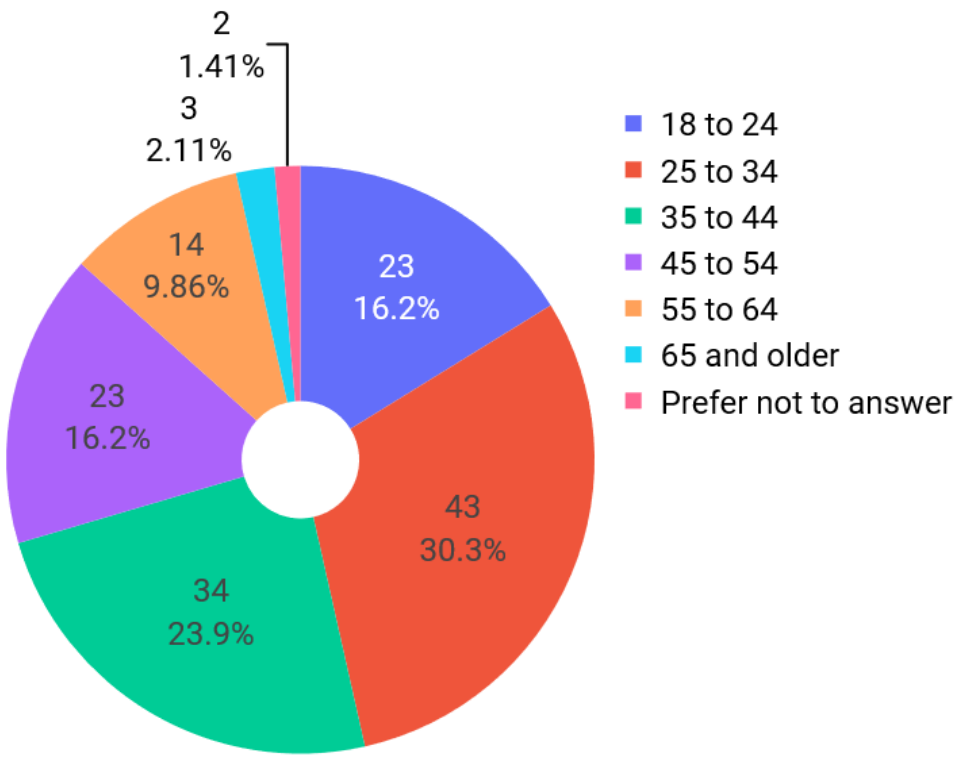


58% of all Reach trips were taken in the W. Atlanta zone.

Takeaway 3: Zone characteristics and available connecting services impact ridership.

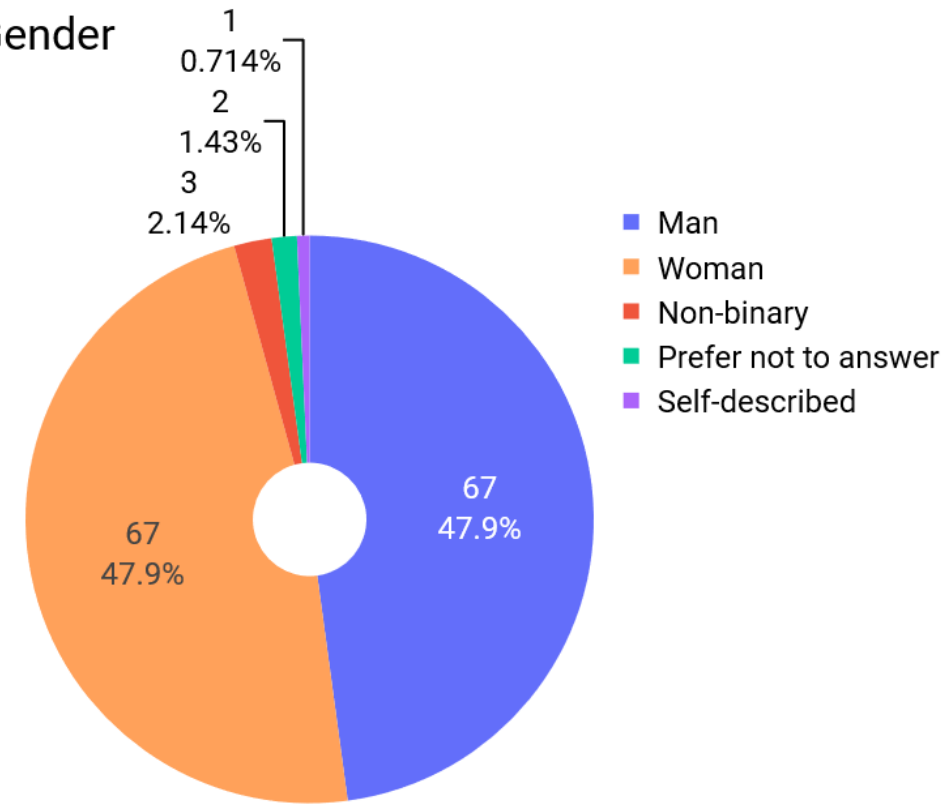
Reach Riders

Age range



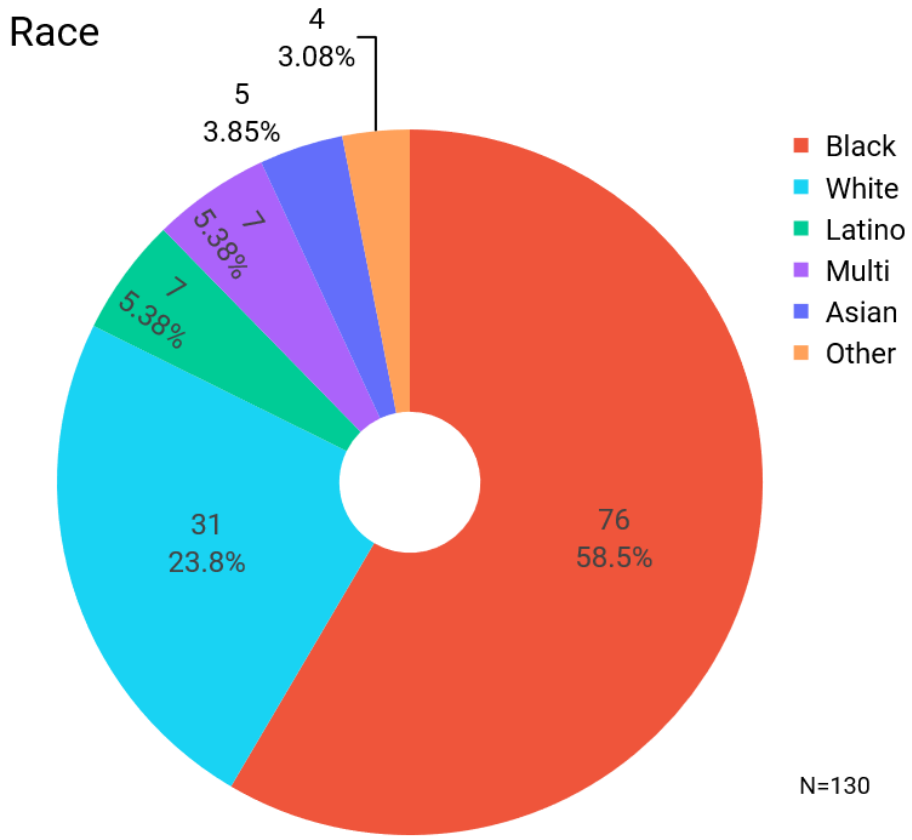
N=142

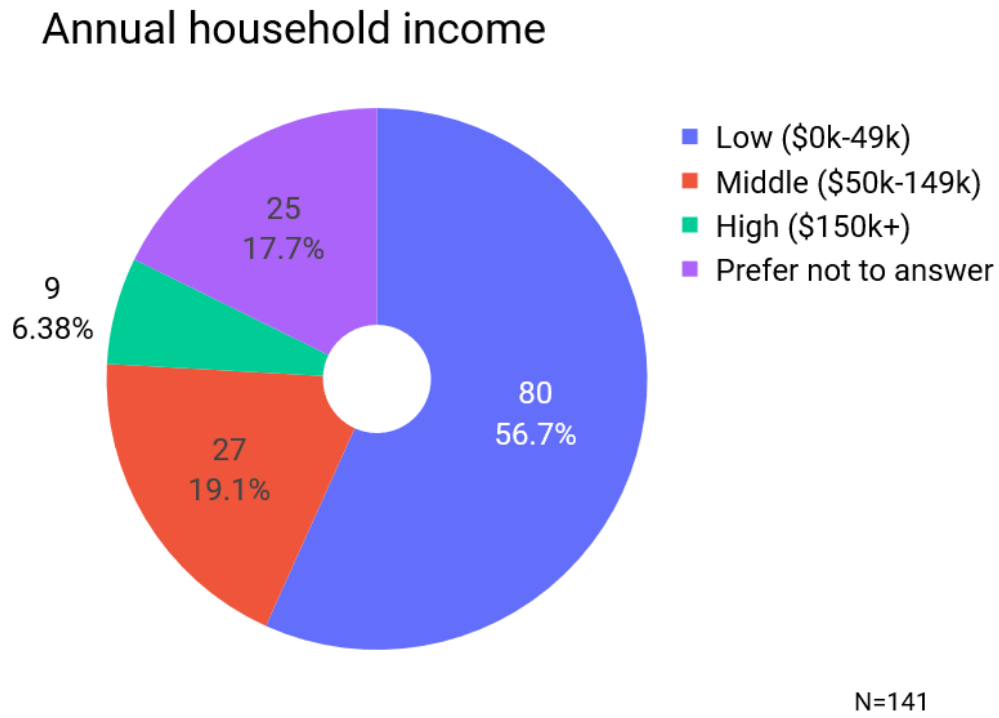
Gender



N=140

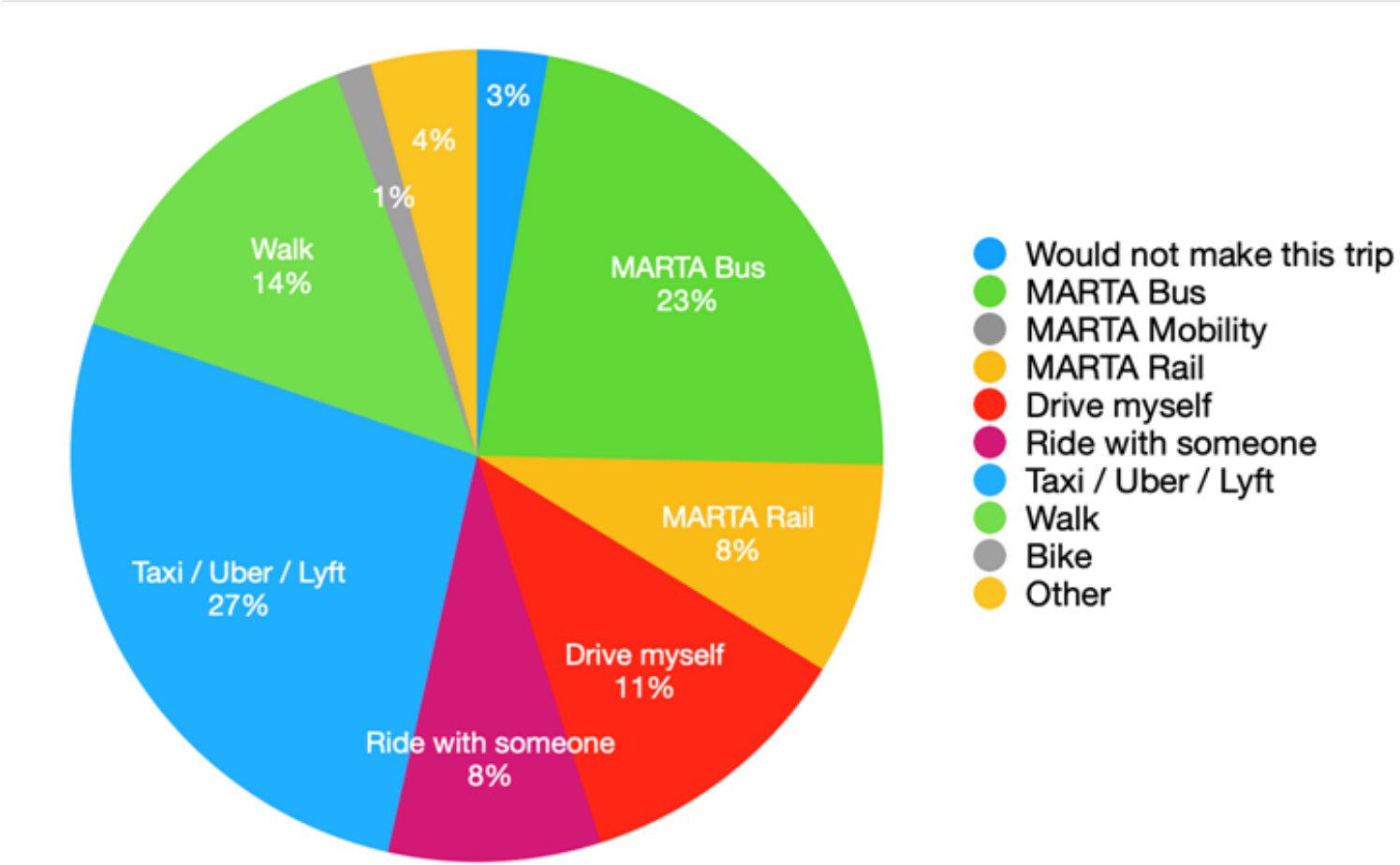
Reach Riders (cont.)





Trips

How would you made the trip if MARTA Reach was not available?

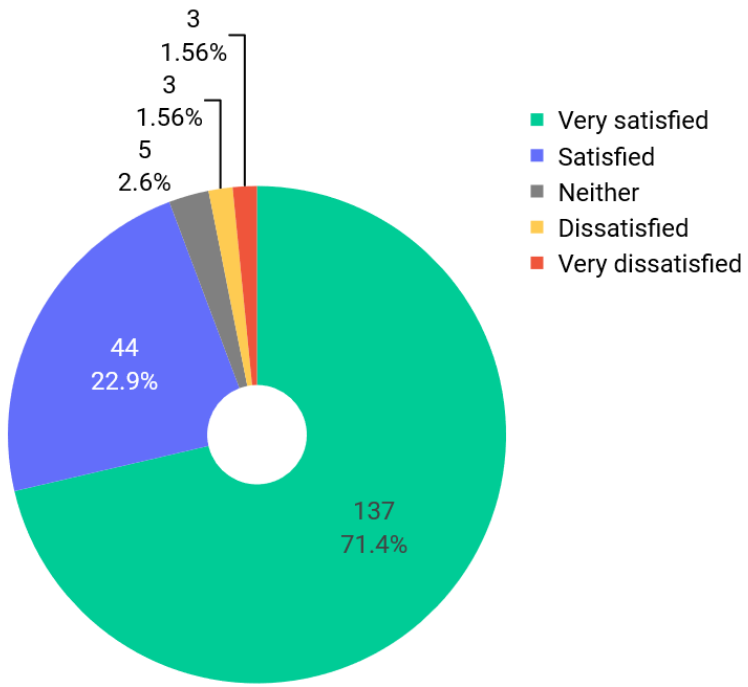


Reach diverted some trips from SOVs, carpooling, and rideshare

Takeaway 4: On-demand transit is a way to decrease dependence on driving, but increased flexibility may also divert some transit trips.

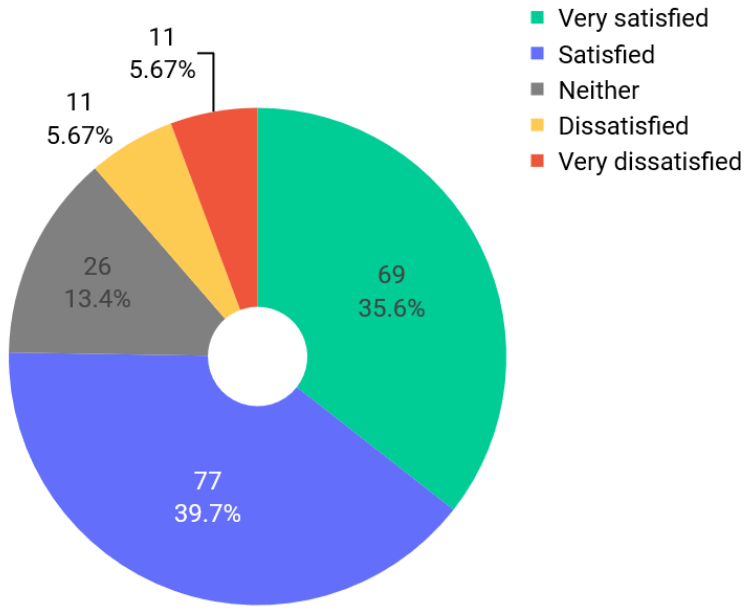
Rider Satisfaction

Satisfaction with Reach



N=192

Satisfaction with MARTA overall



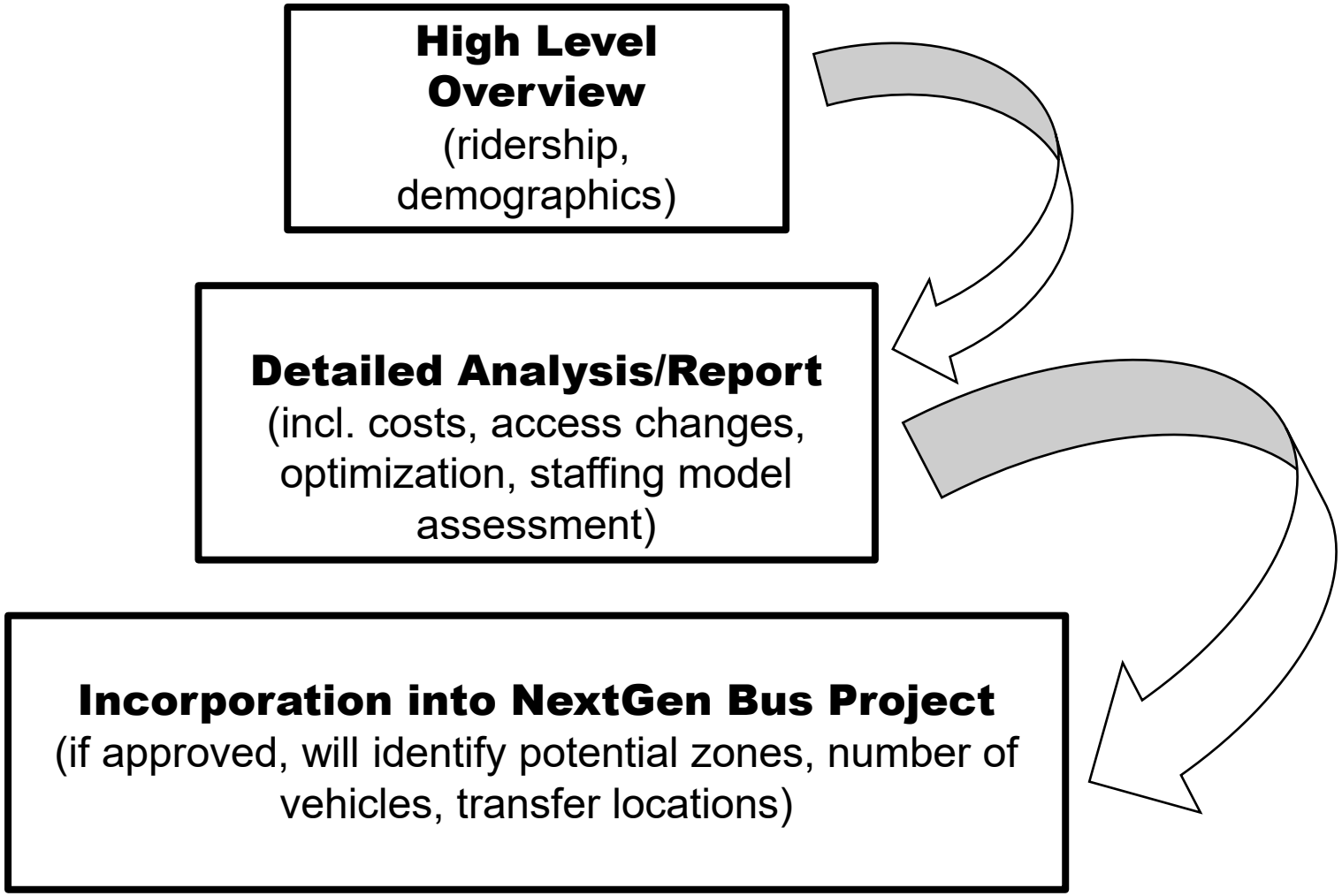
N=194

Takeaway 5: Riders are highly satisfied with on-demand service.

(Some) Lessons Learned

1. Ridership seems to be driven by connections to reliable, high frequency service.
2. Technology should be simple and intuitive. Create accessible options for folks who don't use or can't use technology.
3. Service quality highly impacts ridership – fewer people will use the service, if they anticipate that the service will be poor.
4. Technology must anticipate real world behavior: software should be defensive.
5. To mitigate issues at shift change, overlap shift times: 1 vehicle, 1 Operator.
6. Make sure your stops are in safe, accessible locations. More places for vehicles to idle = better service.
7. There is a disconnect between highly efficient on-demand service and safety (e.g., Operator Distraction Policy).
8. Word of mouth is critically important: improve community engagement to encourage community information spread.

Reach Next Steps



Thank you!

More information at
www.itsmarta.com/reach.aspx

Email us at
reach@itsmarta.com

Anthony Thomas
Program Manager, Customer Experience Innovation
athomas5@itsmarta.com

Executive Director's Report

1. What Matters to ATL's Customers TODAY
2. What Matters to ATL's Customers NEXT
3. What Will Matter to ATL's FUTURE Customers

New Business

ADJOURN