



Gwinnett

# **Gwinnett County Transit Review Committee**

11/13/19

# Today's Agenda

- Call to Order and Opening Remarks
- Adoption of Agenda and Approval of Minutes
- Old Business
- New Business
  - Potential Transit Scenarios
- Public Comment
- Adjourn

# Adoption of Agenda

# Approval of Minutes

# Old Business



# New Business





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# Overview of Rail Options

# Rail Mode Options

- Heavy Rail
  - High speed, electric rail cars
  - Operates in multi-car trains on fixed rails
  - Requires fully-separated right-of-way
  - Can accommodate high levels of ridership



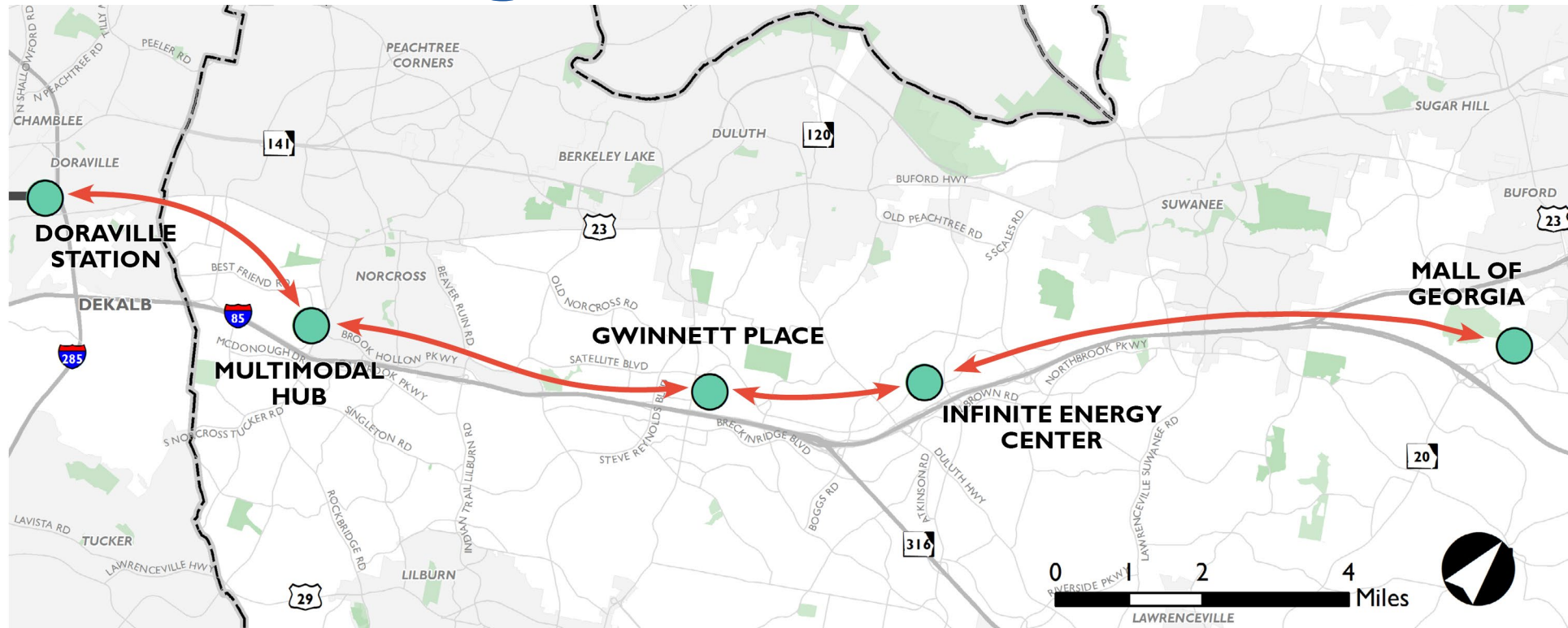


# Rail Mode Options

- Light Rail
  - Operates in designated right-of-way, but does not need to be grade-separated
  - Less intense right-of-way demands; can fit in roadway medians and match curves of most roads
  - Commonly implemented with more frequent stations than heavy rail

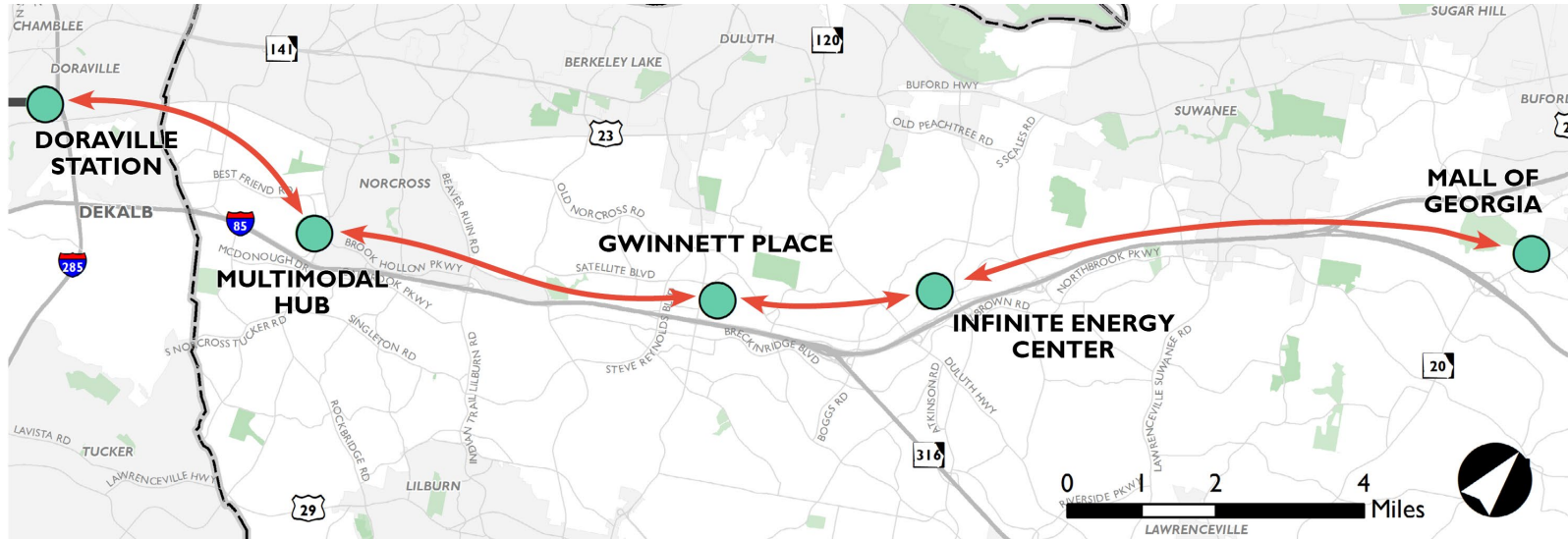


# Rail Mode Alignment Assumptions



- Light Rail generally proposed along arterials to optimize cost efficiency
- Heavy Rail within utility and I-85 corridors where feasible to limit curves and land use impacts

# Heavy Rail

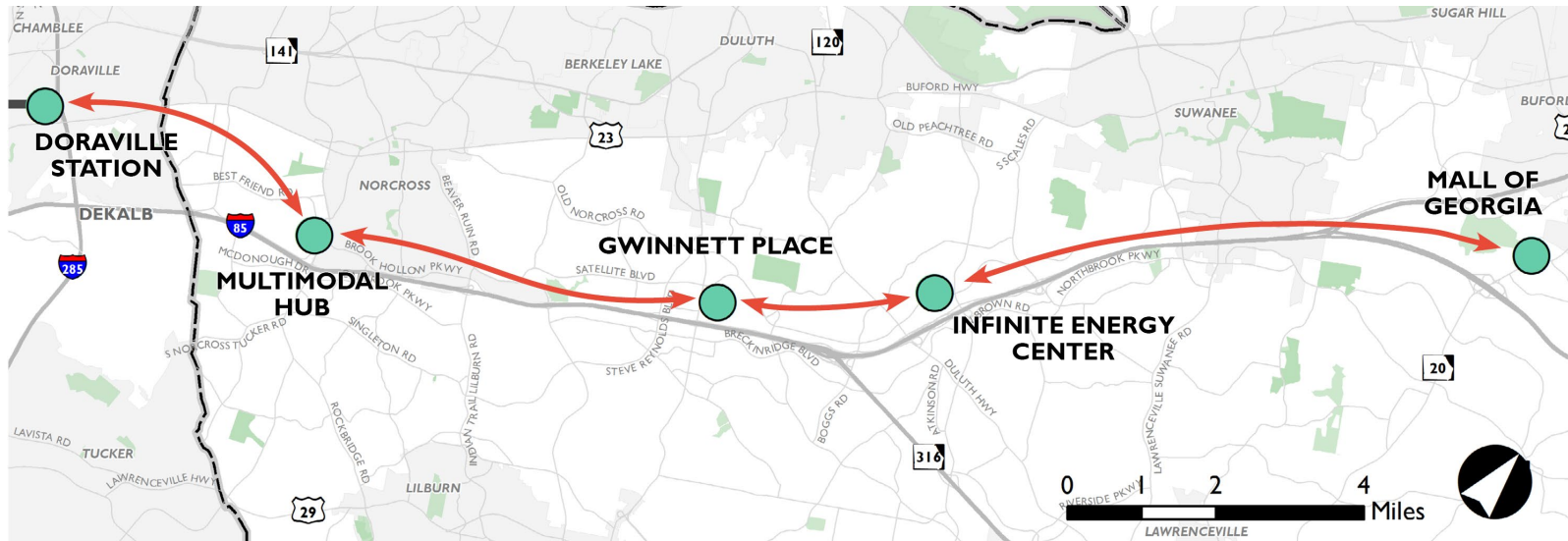


Section	Distance	Capital Cost (2018\$)
Doraville to Multimodal Hub	4.6 miles	\$1.05B
Doraville to Gwinnett Place <sup>1</sup>	11.4 miles	\$2.75B
Doraville to Infinite Energy Center <sup>1</sup>	14.4 miles	\$3.47B
Doraville to Mall of Georgia <sup>1</sup>	22.9 miles	\$5.41B
<b>Cost per Mile<sup>1</sup></b>		<b>\$237M</b>

Costs are estimates based on limited concept development

<sup>1</sup>-Includes cost of Operating and Maintenance Facility

# Light Rail



Section	Distance	Capital Cost (2018\$)
Doraville to Multimodal Hub <sup>1</sup>	5.2 miles	\$0.84B
Doraville to Gwinnett Place <sup>1</sup>	11.7 miles	\$1.73B
Doraville to Infinite Energy Center <sup>1</sup>	14.6 miles	\$2.15B
Doraville to Mall of Georgia <sup>1</sup>	24.0 miles	\$3.29B
<b>Cost per Mile<sup>1</sup></b>		<b>\$137M</b>

Costs are estimates based on limited concept development

<sup>1</sup>-Includes cost of Operating and Maintenance Facility



# No Rail

- Instead of rail into Gwinnett County, provide expanded bus network
- Frees up funds for a combination of bus priority treatments, higher frequencies, more coverage, and longer spans of service relative to scenarios with rail included
- Added costs:
  - To reroute proposed network to Doraville, annual bus O&M costs would increase by \$7.4M
  - Provision of BRT treatments between Doraville and OFS and capital improvements at Doraville to accommodate added bus service (additional \$70M-\$110M)
- Savings (relative to service to OFS):
  - \$11.1M in annual rail O&M
  - \$1.05B in rail capital costs



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# Overview of Funding Options

# Funding Scenarios

Funding Scenario	30-Year Revenue Total (\$Billions, 2019)
1¢	\$5.53B
0.75¢	\$4.14B
0.5¢	\$2.76B



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# Discussion of Potential Scenarios



# Options That Are Not Financially Feasible

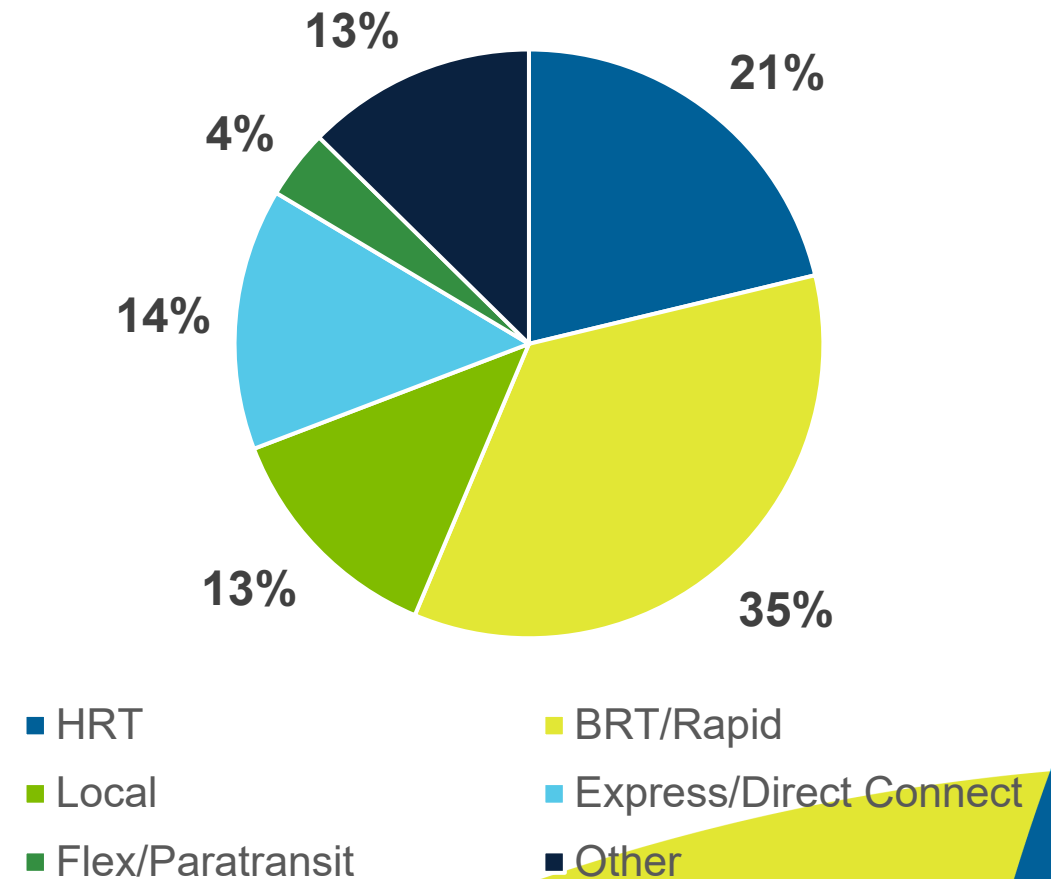
- HRT to Mall of Georgia (All funding scenarios)
  - Utilizes all full-penny revenues for capital, no funds left for operations & maintenance of rail or other transit services
- LRT to Mall of Georgia (0.5¢)
  - Not enough revenue in 0.5¢ scenario to cover capital costs
- HRT to Gwinnett Place or Infinite Energy (0.5¢)
  - Costs of HRT extensions to these locations exceed available revenues

# Baseline – Connect Gwinnett

- 1¢, HRT to OFS

Mode/Project	Total Cost (Cap + Op, in 2018\$ M)	% of Total
HRT	\$1,416.6	21%
BRT/Rapid	\$2,336.8	35%
Local	\$856.8	13%
Express/Direct Connect	\$957.0	14%
Flex/Paratransit	\$253.4	4%
Transit Facilities	\$108.3	2%
Technology/TSP	\$115.9	2%
Regional Projects	\$50.0	1%
TNC/Vanpool	\$25.8	0%
Fixed Operating	\$540.9	8%
<b>Total</b>	<b>\$6,660.6</b>	<b>100%</b>

Scenario Costs by Mode (\$Millions, 2018)



# Example Scenario Assumptions

- Costing assumptions used in the development of original Connect Gwinnett were maintained
  - Regional contribution amount
  - Federal share of capital costs
  - Base year for costing
- GCT hourly operating rates for non-rail modes
- Total capital and operating/maintenance cost varies based on federal share assumptions and funding scenario
  - Federal capital grants are competitive and funding not guaranteed



## FTA CIG PROGRAM FUNDING – MODAL BREAKDOWN

- ▶ Average federal funding levels across all modes are at **37.53%** for new transit projects
- ▶ Total of 13 FFGAs and additional 8 projects with anticipated agreements (21 total projects)



### Bus Rapid Transit

CIG Fed. Share: 57%

Total Projects: 12



### Streetcar

CIG Fed. Share: 35%

Total Projects: 3



### Commuter Rail

CIG Fed. Share: 34%

Total Projects: 2



### Light Rail

CIG Fed. Share: 36%

Total Projects: 3



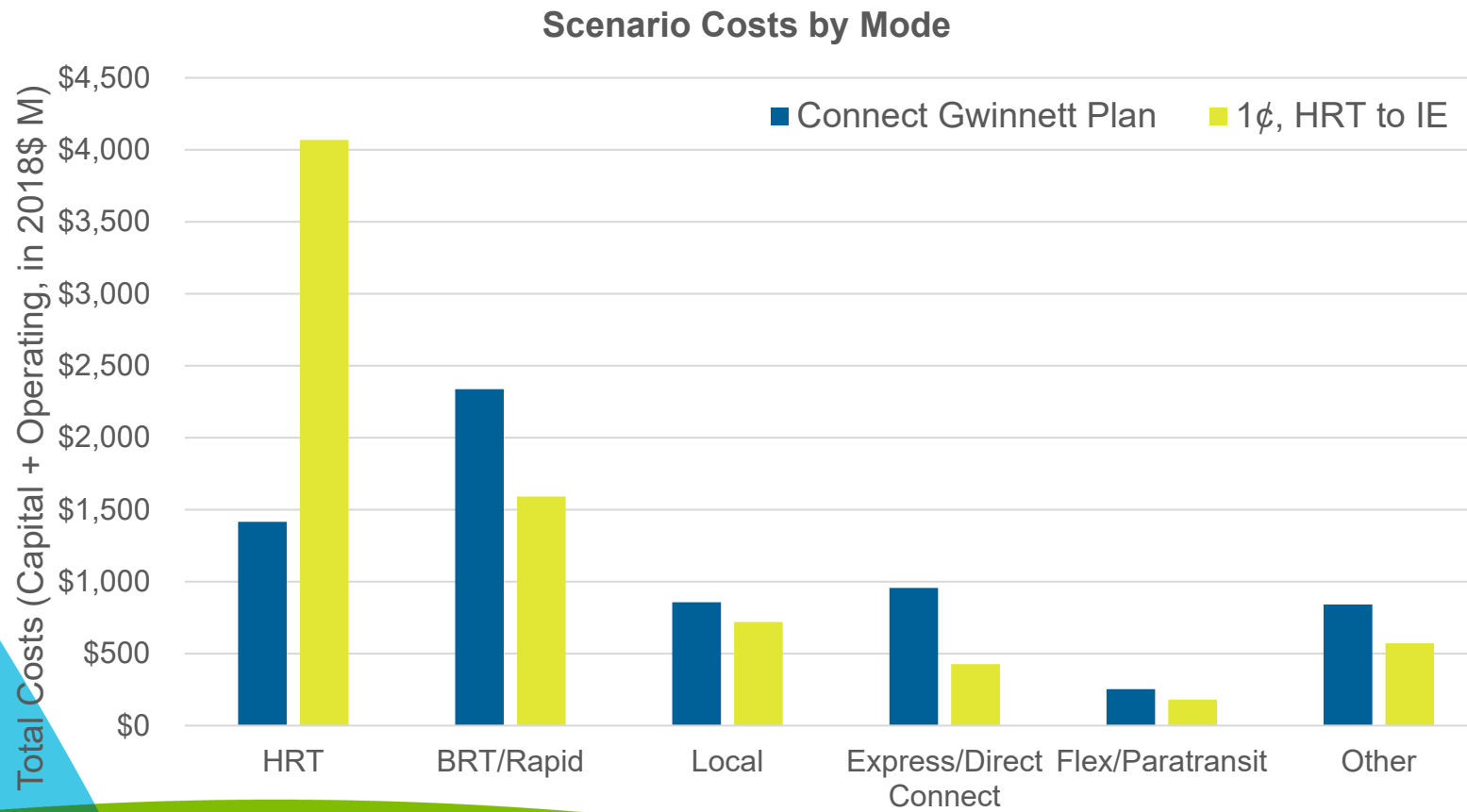
### Heavy Rail

CIG Fed. Share: 39%

Total Projects: 3

# Example Scenario 1

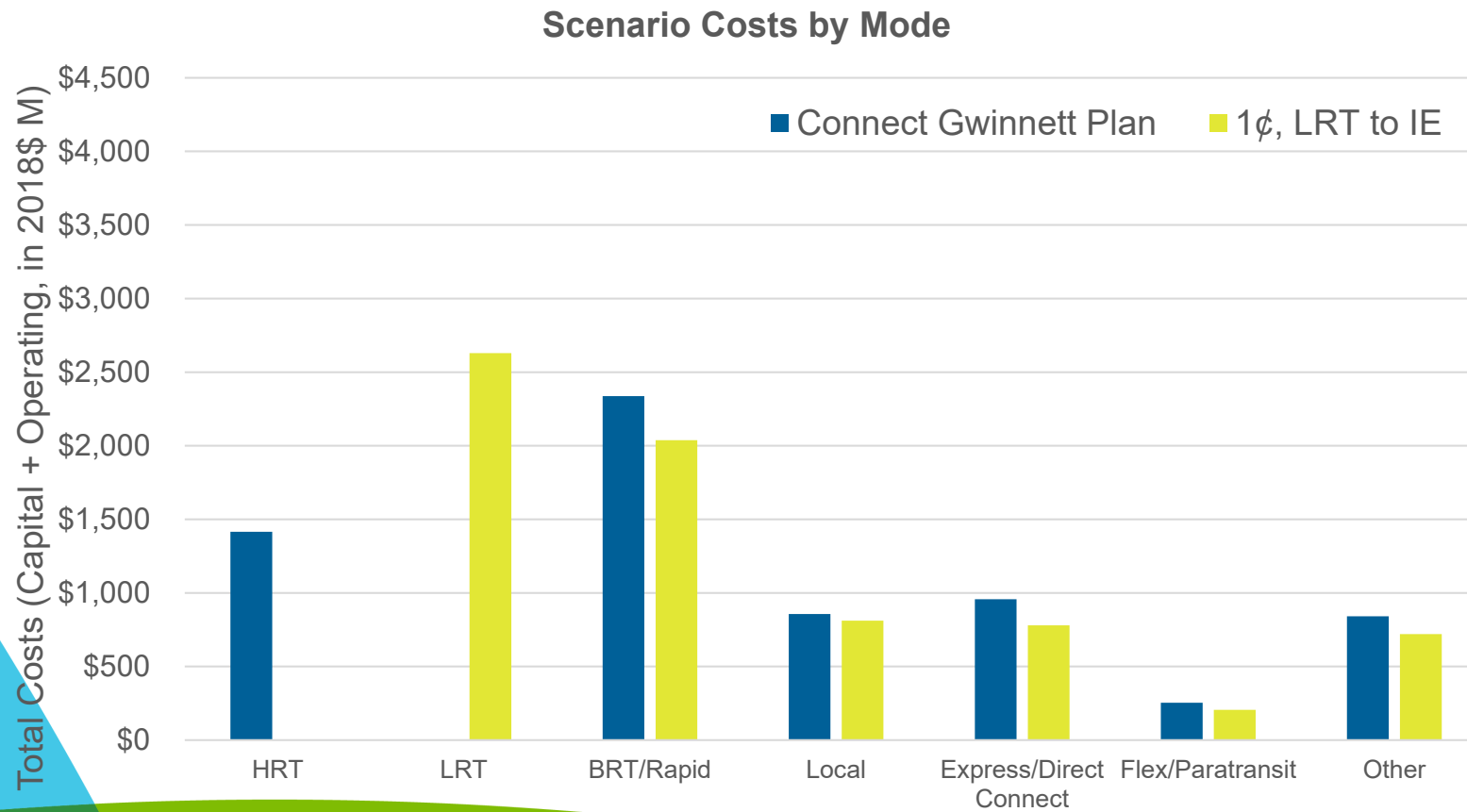
- 1¢, HRT to Infinite Energy



- Eliminate multiple BRT/Rapid improvements
- Eliminate multiple Direct Connect/Express routes
- Some reduction in Local/Rapid frequency
- Delay construction of HRT

# Example Scenario 2

- 1¢, LRT to Infinite Energy

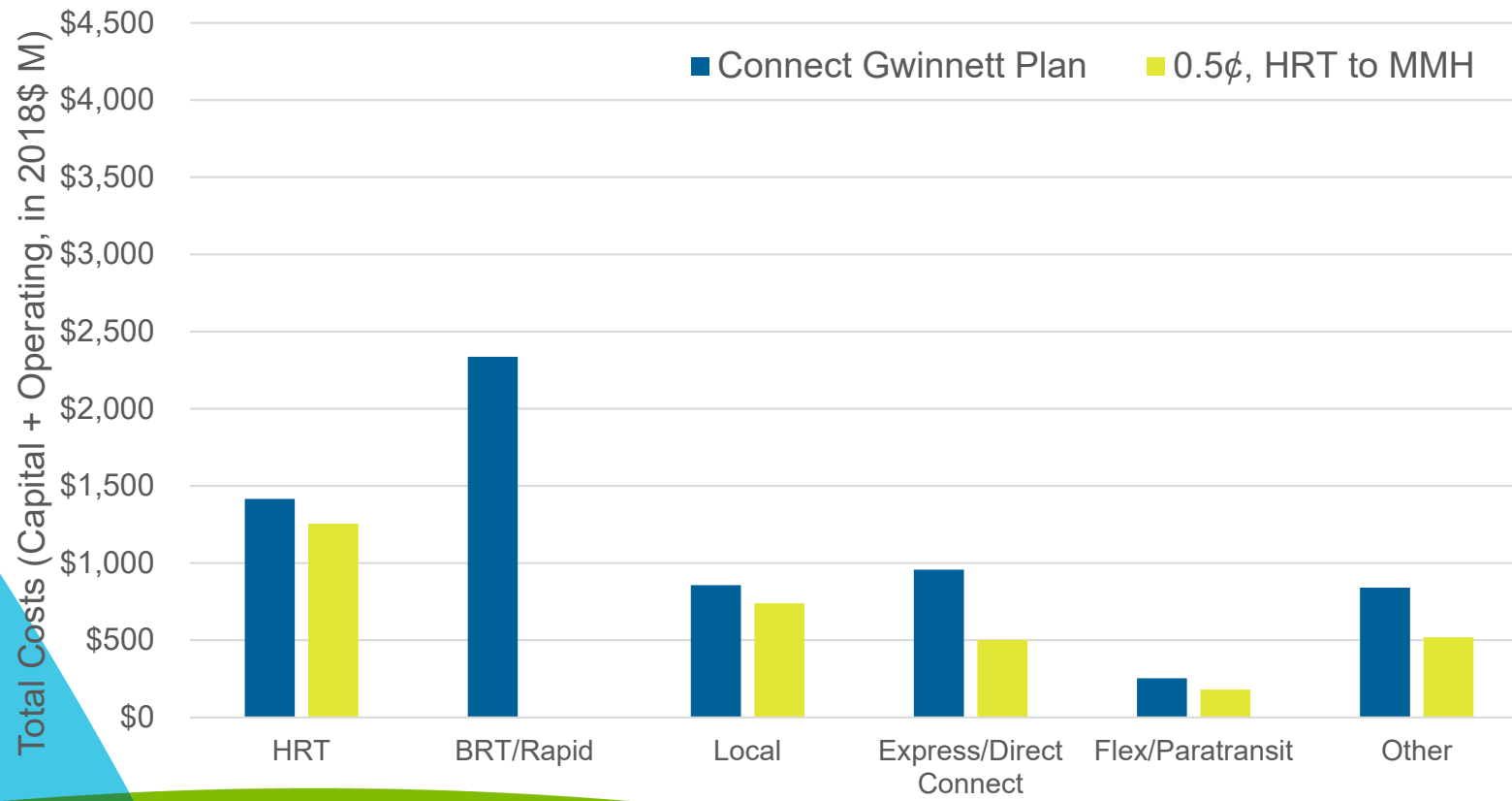


- Eliminate multiple Rapid improvements (no impact to BRT)
- Eliminate multiple Express routes (no impact to Direct Connect)
- Some reduction in Local/Rapid frequency

# Example Scenario 3

- 0.5¢, HRT to Multimodal Hub

Scenario Costs by Mode

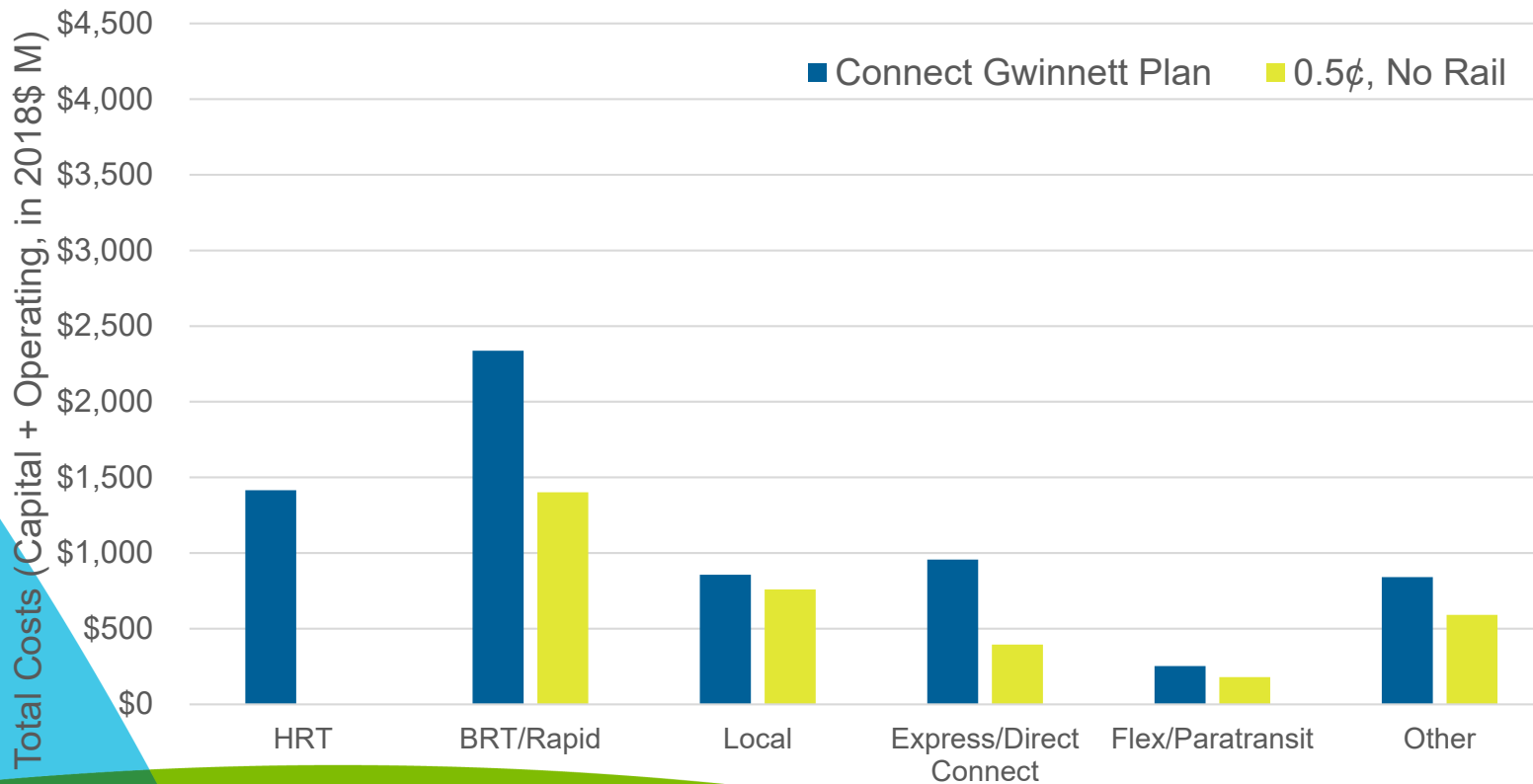


- Eliminate all BRT and Rapid improvements
- Eliminate multiple Direct Connect/ Express routes
- Some reduction in Local/Rapid frequency
- Delay construction of HRT

# Example Scenario 4

- 0.5¢, No Rail

Scenario Costs by Mode



- Eliminate multiple BRT/Rapid improvements
- Eliminate multiple Express/Direct Connect routes
- Some reduction in Local/Rapid frequency
- Delayed implementation of full plan



# Example Scenario Takeaways

- Extending HRT past OFS would require removal of multiple BRT/Rapid/Express routes
- If desired to extend rail past OFS, replacing HRT with LRT would reduce impact to other elements of plan, but would require transfer at Doraville
- Reducing revenue amount makes it difficult to preserve rail and maintain many other elements of plan

# Discussion

- What do you like about the example scenarios?
- What don't you like about the example scenarios?
- When considering scenario tradeoffs, what must remain regardless of the scenario changes?
- What scenarios should we evaluate moving forward?

# Work Overview and Meetings

- October 8 – Organizational Meeting
- October 19 – General Transit Planning Workshop
- October 24 – The ATL and Atlanta Regional Commission (ARC)
- October 30 – Connect Gwinnett: Transit Plan
- Nov 9 – Connect Gwinnett: Transit Plan Deep Dive, Community Input Leading up to and Since The Referendum, and Stakeholder Session
- Nov 13 – Potential Transit Scenarios
- Nov 20, Dec 2, and Dec 9 – Transit Scenario Analysis

# Public Comment





**Adjourn**

