



# Personal Rapid Transit

applicable to

## Sustainability

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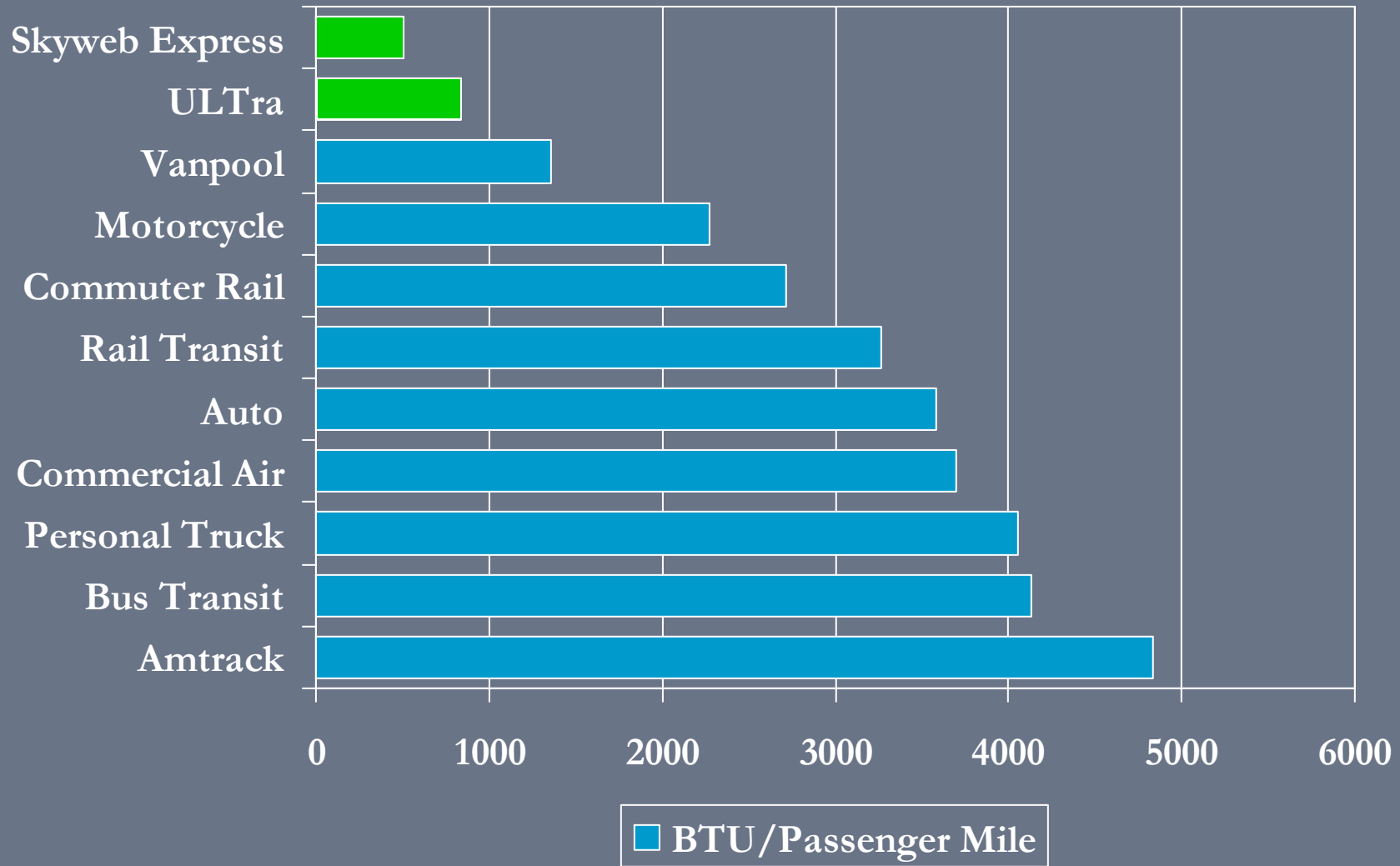
## Sustainability Issues

- Energy Use
- Emissions
- Capital Cost / Resource Use
- Operating Cost
- Safety and Security
- Ridership





### Energy Use





## Emissions

- No Point-of-Use Emissions
- Power from the grid



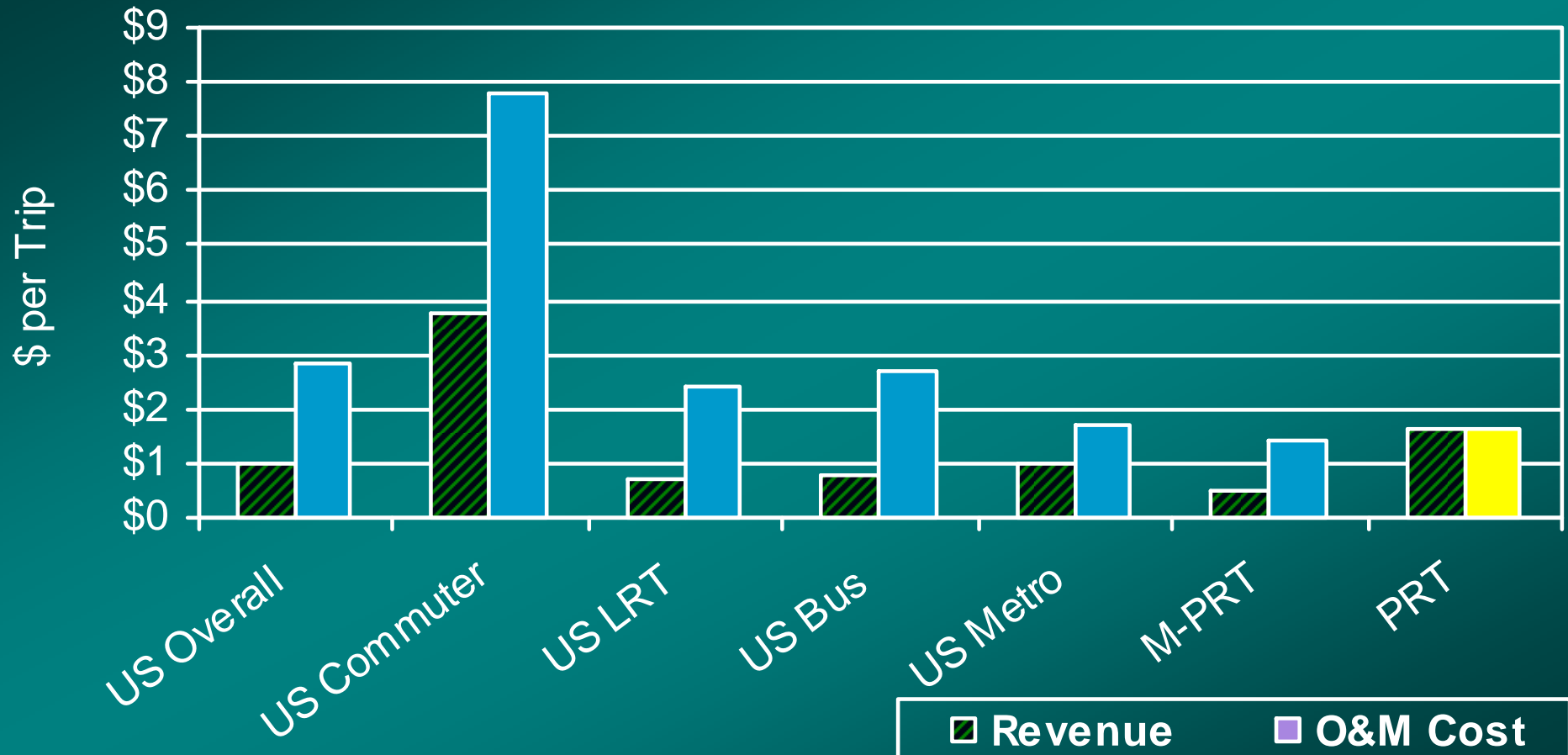


Capital Cost per Mile (\$M)

Mode	Low	Average	High
Metro Rail	\$110	\$200	\$2,000
Light Rail	\$25	\$50-\$70	\$195
APM – Urban	\$30	\$100-\$120	\$145
APM - Airport	\$49	\$100-\$150	\$100-\$150
BRT Busway	\$7	\$14-\$25	\$50
BRT Tunnel	\$200	\$250	\$300
PRT One Way	\$15	\$20-\$35	\$50
PRT Two Way	\$25	\$30- \$50	\$75



Operating Cost per Passenger





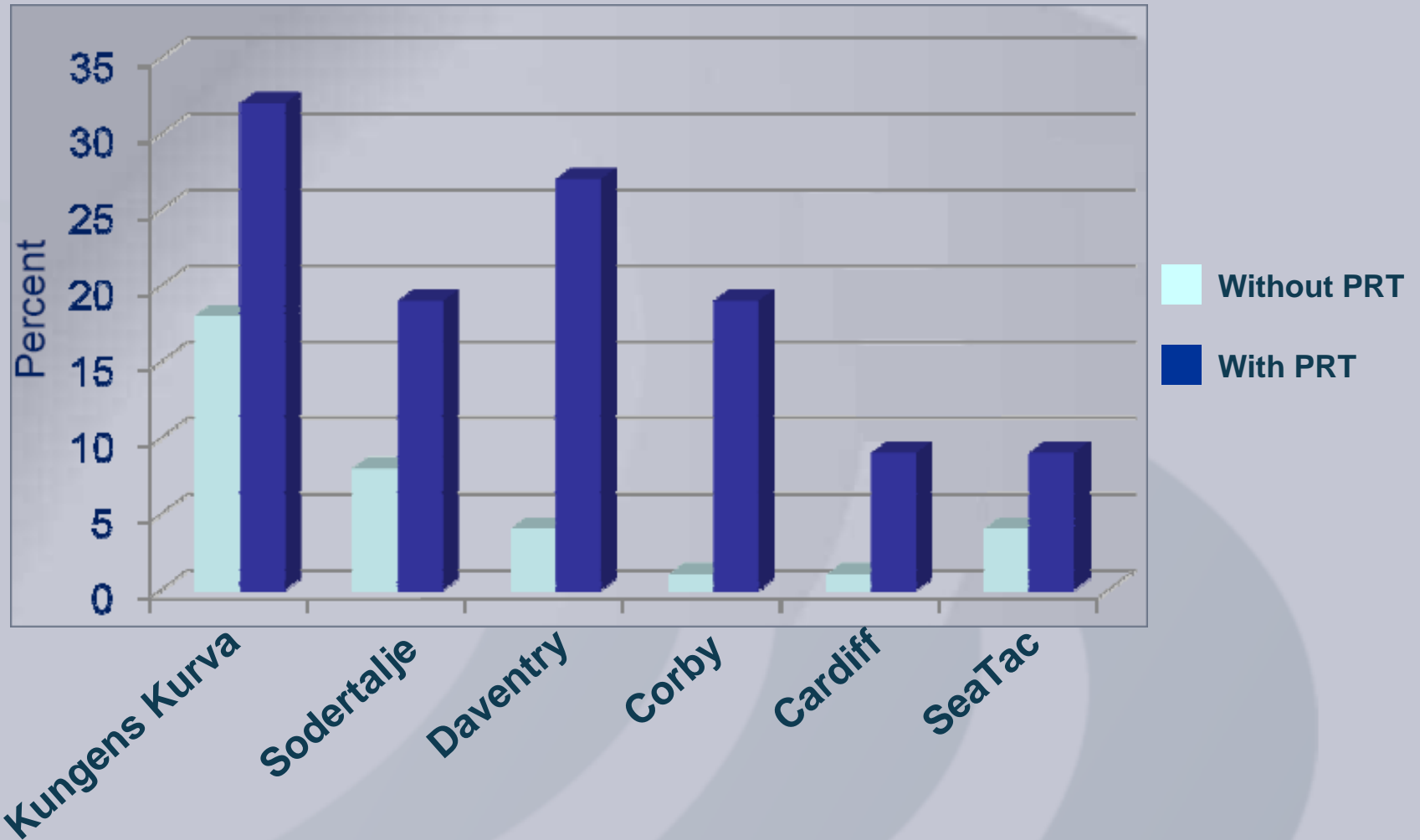
## Safety and Security

- One way traffic
- Lower maximum speeds
- Separated from other traffic and pedestrians
- Crowding (a potential security vulnerability) is avoided
- 110 million injury-free passenger miles at Morgantown (regular transit would have injured over 100)





### Transit Mode Share



Source: Various studies in named communities








## Reasons for High Mode Share

- High level of service
  - Little or no waiting (<1 minute at LHR)
  - Short trip times (non-stop)
  - Seated travel
  - Private
  - ADA compliant
  - Expected to match APM 99.7% availability
- Comparison with other modes



## Comparison Study


- Compared PRT with
  - Conventional Transit (Light Rail, Bus)
  - Automobile
- Good 
- OK 
- Bad 




Comparison Study

	Transit	Car	PRT
New technology	Good	Good	Ok
Trip Time	Bad	Ok	Ok
Cost per passenger	Ok	Ok	Good
On-demand 24/7	Bad	Good	Good
Transfers	Bad	Good	Good
Seated travel	Ok	Good	Good
Private	Bad	Good	Good
Non-stop	Bad	Ok	Good
Vehicle waits for passenger	Bad	Good	Good

Good 

Ok 


Bad 



Comparison Study

	Transit	Car	PRT
ADA compliant	Ok	Bad	Good
Safe and secure	Ok	Ok	Good
User friendly	Ok	Ok	Good
Snow & ice	Ok	Bad	Ok
Minimal walking	Bad	Good	Ok
Environmentally friendly	Ok	Bad	Good
Energy efficient	Ok	Ok	Good
Visually appealing	Ok	Ok	Ok
Operate inside buildings	Bad	Bad	Ok

Good 

Ok 

Bad 



## Conclusion

**PRT promises to be significantly more sustainable than most other modes of transportation**





*How to get  
into PRT*



## Contact Information

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