



# PSTA Replacement Buses

Decision-Making Guide Process for 2016

*PSTA Finance & Performance Management  
Committee – February 17, 2016*

Pinellas Suncoast Transit Authority (PSTA)  
St. Petersburg, Florida



## Action

- **August 24, 2016 Vote on:**
  - **Replace 10 Oldest Diesels**
  - **Replace 7 Connector Shuttle Buses**
- **6-Month Goal: PSTA Board understands technology decision trade-offs and makes decision in August.**



# Emission Comparison\*

	Diesel	Hybrid	Electric	CNG
<b>Fuel Economy</b>		10%-20% Better than Diesel	Best	Same as Diesel
<b>Air Quality</b>	Much better than Old Diesels	Better Fuel Economy Leads to Slightly Better than Diesel	Best	Lower Nox than Diesel Higher CO than Diesel Low PM/NMHC
<b>Climate Impacts</b>		Better than Diesel or CNG	Best	Total GHC emissions slightly higher than Diesel

*\*Comparison of Modern CNG, Diesel and Diesel Hybrid Electric Transit Buses Efficiency & Environmental Performance, mjbradley.com, November 2013.*



# Financial Comparison

	Diesel	Hybrid	Electric	Refurb Electric	CNG
<b>Purchase Cost</b>	\$500,000	\$695,000	\$840,000	\$580,000	\$540,000
<b>Life-Cycle Cost</b>		+\$40K vs. Diesel over 500K Miles (PSTA 2013 Study & TCRP Model)	Too New – <b>Maint. Costs Lower than Diesel</b>	Old Bus presents risk.	Same <b>range</b> as Diesel*
<b>Facility/Charging Costs</b>	\$0	\$0	\$350,000 Per Charging Station	\$25,000	<del>\$1M</del> <b>\$2M+</b> Facility Safety Revisions

*\*Capital Metro CNG Implementation Study, Texas Transportation Institute, November 2011.*



# Operational Comparison

	Diesel	Hybrid	Electric	Refurb Electric	CNG
<b>Reliability</b>		Proven Reliability Battery Replacements?	Promising Results	Not Proven Old Bus	Proven Reliability
<b>Span of Service</b>	All Routes	All Routes	15 of 40 Routes	15 of 40 Routes	All Routes
<b>Social Issues</b>	Yes	Best in Urban/Beach	On-Route Charging Stations	Not Proven	Domestic Fuel
<b>Timeline</b>	1 Yr.	1 Yr.	3-5 Years – Fed LoNo Grant Needed	2-3 Yr.	4 Years



# Timeline

## February

- Orientation

## March

- Legislative Update
- Life Cycle Costs Updated

## April

- Presentations by Vendors

## May

- Presentations by Vendors
- CIP Vote/Updated Revenue Info

## June

- Analysis & Recommendation by 3<sup>rd</sup> Party Consultant
- NoLo Electric Bus Decision

## July

- Committees Make Recommendation
- MPO Workshop

## August

- Vote

