

ALEXANDRIA TRANSIT (DASH)

COUNCIL UPDATE – BUS REPLACEMENT INITIATIVE

November 28th 2017



OVERVIEW

- DASH has \$13 million in replacement bus capital funds programmed (primarily NVTAs) for expenditure
- DASH reevaluated its post-2012 purchasing of hybrids to assess overall fleet state of good repair, maintenance costs, emissions and return on investment
 - Included dialog with Environmental Policy Commission
- Existing funds allow purchase of approximately 17 hybrid or 27 clean diesel
- Per Bus: Hybrid = Approximately \$700,000 plus battery replacement, Clean Diesel = \$480,000, Electric = Approximately \$1 million to \$1.2 million plus new charging infrastructure.
- In September, WMATA approved a fleet replacement plan that now replaces buses with clean diesel in lieu of hybrid

DASH BOARD ACTION

- DASH General Manager informed the Board last spring that DASH was assessing its purchasing policy
- DASH has pending order with secured production slots and pricing that requires a decision no later than December
- On November 8, the DASH Board adopted a resolution to purchase *clean diesel buses and transition to all-electric as soon as technically and financially feasible*

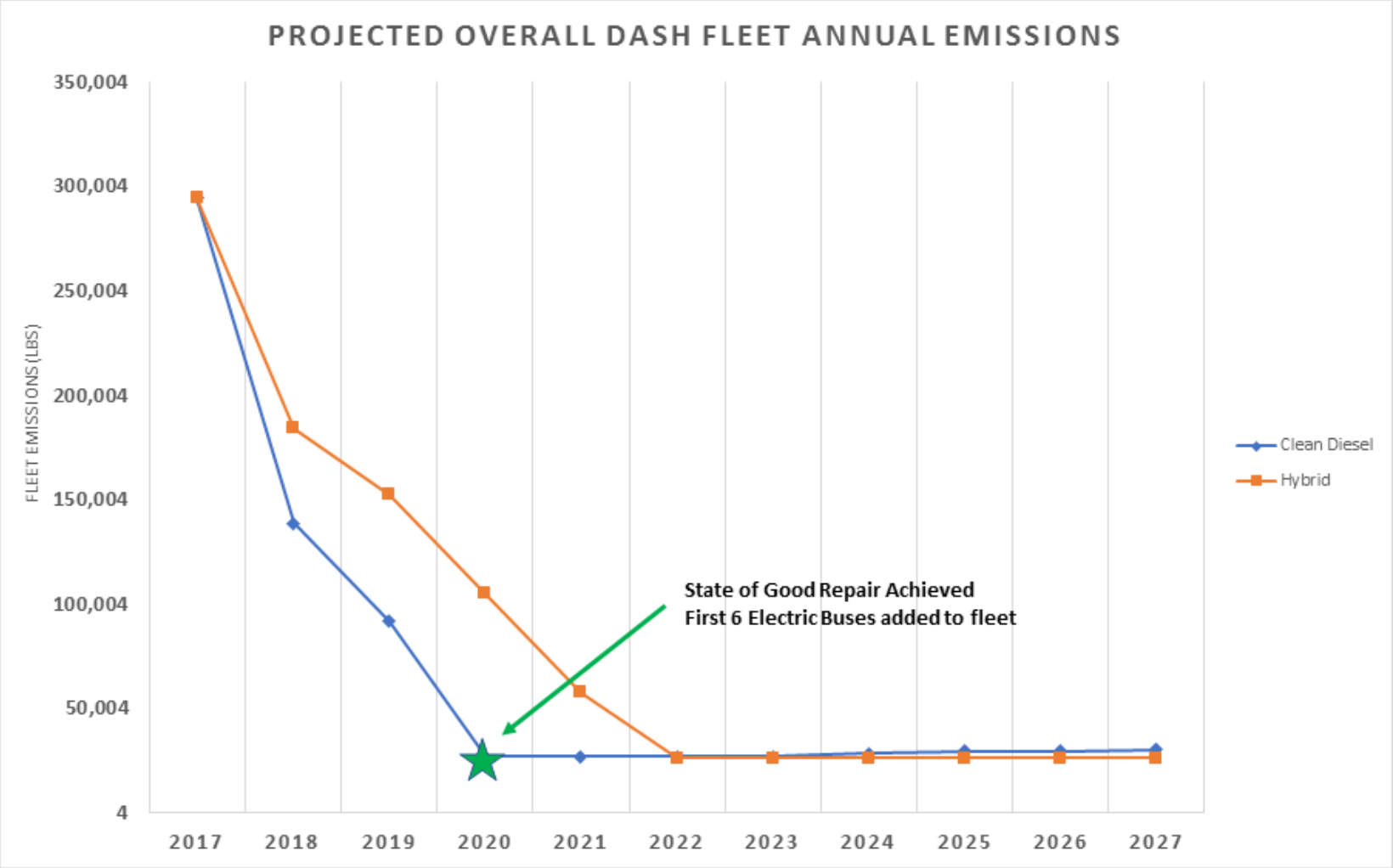
WHY CLEAN DIESEL?

- Accomplishes State of Good Repair more quickly
- Substantially Reduces Overall Fleet Emissions
- Improves Passenger Experience/Safety/Reliability
- Significantly reduces vehicle maintenance downtime
- Proposed bus acquisition is consistent with Alexandria's Eco-City charter and Environmental Action Plan

FLEET ELECTRIFICATION

- DASH resolution on low emission/clean diesel is paired with commitment to eventually transition to an all-electric bus fleet
- DASH is projecting purchasing six (6) all-electric buses as early as FY 2020 utilizing Volkswagen Settlement Fund (*pending State authorization and allocation*)
- DASH staff will continue to work with the Environmental Policy Commission (EPC) to evaluate opportunities & constraints
- Staff considering changes to FY 2019 to FY 2028 CIP that will be proposed in February 2018 to Council to reflect conversion to an all electric fleet

EMISSIONS



ELECTRIFICATION

- Electric transit bus market is in early stage but advancing quickly -DASH's goal is to stay at the forefront
- An Electric Bus (\$1million/bus) currently costs more than hybrid bus (\$700,000) and requires additional capital for charging stations
- Maintenance costs are undetermined
- High rate of energy consumption creates significant demand charges that will require close coordination with Virginia Dominion

CONCLUSION

NEW CLEAN DIESEL BUSES ARE:

- Quieter compared to the buses they will replace
- Substantially less expensive to purchase and maintain
- Improve service reliability and the customer experience
- Safer, more accessible and lighter weight substantially improving fuel economy