Metro-North Railroad
Siemens Dual Mode Locomotives

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Metro-North Railroad

About MNR

MTA is largest US commuter rail system.

Metro-North's operating territory is comprised of 385 route miles containing 122 passenger stations. There are approximately 550 scheduled revenue trains on weekdays. It is the third busiest commuter railroad in North America in terms of annual ridership, behind the Long Island Railroad and NJ Transit.

Project Background

- The Dual Mode Locomotive procurement is intended to replace GE P32AC-DM locomotives nearing or exceeding their projected 25-year lifespan.
- The current P32s operate with both Diesel and Third Rail Electric power.

Project Background

- The order of 27 locomotives is funded by a Federal Transit Administration grant
- Includes options for up to 144 additional locomotives (LIRR/CTDOT/NYDOT)
- The new Dual Mode Locomotives are designed for use throughout the railroad, including possible future service expansion to Penn

Schedule

- Notice of Award (NOA) – March 2021
- Currently (February 2022) in second design review, of three
- Pilot locomotive to be delivered within 50 months from NOA
- Delivery schedule for the nineteen (19) base locomotives is expected to be completed within 66 months from Notice of Award (NOA)
- Base warranty period 2-years

Primary Changes to PRIIA Language

- Incorporating Amtrak ALC-42 upgrades, where feasible
- Based on MNR's and LIRR's long 3rd rail and Dual Mode experience
- MTA specific specification sections that address issues of prior vehicles
- Grand Central Terminal (Park Avenue Viaduct/Tunnel) has unique weight, clearance and evacuation requirements due to age

Key Features & Benefits

- Speed in electric mode increased from 60 mph to 80 mph
- Lower emissions
  - Meets EPA Tier IV
  - Extended electric mode, less fuel usage
- Discussing on-board energy storage with Li-Ion batteries, as an option
  - Train jog mode in gaps
  - Compressor operation in gaps

Differences – LIRR

- Carbody Safety Appliances – with Modifications as needed for LIRR clearance
- Brake Manifold Layout – modified if needed to meet brake higher performance criteria
- 3rd Rail Collector – modified for LIRR (over running vs under running)
- Comm/MU Receptacles – 36-pin receptacles required for LIRR
- Horn – pneumatic horn control valve on engineer's console per BLE
- Paint and style

Questions?