MONROE COUNTY ENVIRONMENTAL MANAGEMENT COUNCIL

November 20th, 2024

In Attendance:

EMC

At Large - Tom Dooley; EMC Chair
Town of Chili - Larry Lazenby
Town of Gates - Charles Johnson
Town of Ogden – Bill Parkhurst
Town of Henrietta- Bill Santos
Village of Honeoye Falls – Andy Less
Town of Penfield – Cynette Cavaliere
Town of Perinton - Mark Gaul
Town of Pittsford- Caroline Kilmer
Town of Rush – Beth Hoak
Town of Webster - Chuck Zlotkus
Ex Officio Alternate - Clement Chung; MCDES
Ex Officio Alternate – Yasmin Guevara; MCDES
Ex Officio Alternate – Starr O'Neil; MCDPH
Ex Officio Alternate – Steve Olufsen; Planning & Dvpt
MC Legislature Minority - Virginia McIntyre
Recording Secretary – Liz Kaptein

Guests

Rusty Korth– RTS
Erin McCormick - RTS
David Belaskas - RTS
Kate Kremer– FMCE
Hunter Reece- Churchville Chili HS
Jack Debes-West Irondequoit HS

Meeting location:

Regional Transit Service Headquarters, 1372 E Main St, Rochester, NY 14609

Call to Order:

- Meeting was started at 3:30pm

Review of Minutes:

- Tabled until December meeting

Meeting Topic(s):

Zero Emission Strategies
William "Rusty" Korth – Vice president of Zero Emission Strategies for Regional Transit Service (RTS)
Highlights of the Lecture and Tour Include:

- RTS serves customers with about 10 million trips per year. This is accomplished with a fleet of about 325 vehicles
- RTS is a recognized leader in zero emission vehicle fleets around the nation.
    - In his 2020 State of the State Address, Governor Cuomo announced that RTS has committed to having a 25% electric bus fleet by 2025 and a 100% electric fleet by 2035.
    - RTS was already on track when Executive Order 22 was signed, requiring
        - 100% of light-duty vehicle fleets to be Zero Emission Vehicles (ZEVs) by 2035
        - 100% of their medium- and heavy-duty vehicle fleet be ZEVs by 2040.
- Current implementations and future plans for reducing emissions by RTS
    - There are currently 20 battery electric buses in service with RTS and 5 Hydrogen fuel cell buses. RTS plans to expand their fleet with fuel cell electric buses and replace aging diesel buses yearly with a goal of transition by 2040.

- Battery Electric Bus (BEB)
    - RTS began their ZEV transition by purchasing BEBs, which are now about 10% of their total fleet.
    - RTS has faced challenges with BEBs, particularly around winter weather and range reduction. BEBs see about a 50% reduction in range per charge during the cold weather months due to energy demand from heating the buses. This drastic reduction in range would require a significant fleet expansion to offset if the entire fleet were to be transitioned to BEB. In addition, refueling BEBs takes several hours, limiting the number of trips a bus can take a day. Therefore, RTS began looking at other options.

- Hydrogen Fuel Cell Electric Bus (FCEB)
    - There aren't a lot of FCEB vehicle fleets, so RTS has been one of the leaders taking this charge. As of June 7, 2024, RTS had the first FCEB in New York State!
    - FCEBs are more efficient and cost effective long-term than BEBs, and only experience about a 25% reduction in range during cold weather (compared to the 50% of BEB). Operation and re-fueling is more complex initially than BEB. However, once the infrastructure becomes fully established and staff are trained, the procedure of refilling the buses is straightforward and timely. The actual filling of the tank only takes 6-12 minutes, but the refueling station needs to be "primed" for about 30 minutes before it can begin fueling. So, it is still a more involved process than refueling with standard diesel or BEB.
    - Challenges of hydrogen fuel cell use include lack of transactional data when refueling, refueling stations require expansion of electric service, hydrogen boil-off can vary significantly and cause a short-time backup. There are very few manufacturers making hydrogen fuel cell buses in the US and lead times are long. Rising inflation between purchase and assembly of the buses is also a common issue (not unique to RTS experience).
    - The most limiting factor of implementing a larger FCEB fleet is the cost. The estimated cost of a full facility and fleet conversion to FCEB is $284,225,000. However, the cost is not just an initial investment. Heavy duty buses (40') have a life span of about 12 years. Here is the cost comparison of 40' buses:
        - Diesel: ~ $700,000
        - BEB: ~ $1,000,000
        - FCEB: ~ $1,400,000

      Currently there are a number of grants that RTS is utilizing to help transition to ZEV. However, if these grants go away, finding the funding will be difficult.

- The presentation concluded with a walking tour of the facility.

Other Business/Announcements

- December 18th EMC meeting will be held at 4:00pm at the MC Fleet center in Building 1 located at 145 Paul Road.

Adjourn:

- Meeting ended at 5:15pm