

Minutes

RTA Organizational, Services and Performance Monitoring Committee Meeting

9:04 a.m., March 1, 2022

Committee Members: Byrne (Chair), Duarte, Serrano, Weiss

Other Board Members: Joyce, Lucas, Koomar, McCall, Pellot

Not present: Moss

Staff: Benford, Birdsong, Caver, Coffey, Cottrell, Davidson, Ferraro, Fields, Fleig, Garofoli, Gautam, Kirkland, Metcalf, Miller, Petit, Schipper, Talley, Temming, Togher, Ulrich, Walker-Minor

Public: Gibbons, Loh, Pesuit

The meeting was called to order at 9:04 a.m. There were four (4) committee members present. In accordance with the Ohio Open Meetings Act and House Bill 51, signed into law on February 17, 2022 and effective immediately through June 30, 2022, this meeting will be live-streamed on RTA's Board Page www.RideRTA.com/board via the meeting date for staff and members of the public. House Bill 51 allows Board members to participate by telephone or video and be considered present as if in person. It also allows Board members to vote and be counted for the purpose of determining a quorum while attending by telephone or video.

Energy Price Management Program

Natalie Ulrich, Energy Manager, gave the presentation. Today's presentation is an update on the Energy Price Management Program. It will cover the history of the program, how it works, the objectives and rules we must abide by. The program started in 2009 after we had a sharp diesel price increase in 2008. Our fuel price went up from January 2008 to July 2008 a staggering 58% per gallon. Compared to the prior year, the fuel cost went up 60%. It was hard to adjust to that type of increase. The program is about securing contracts to establish future prices. We are not paying for fuel in advance. We are just holding a position. We are strategically purchasing contracts at perceived low points in the market. We are buying them at a perceived low point.

Fuel is very complex. It is global and volatile so we get guidance on the market by our fuel consultant, Linwood Capital. The Ohio Revised Code has rules we must abide by. This program is intended to mitigate for the term of the contract. It is a budgetary and financial tool only and not a contract for the procurement the fuel or the energy source. The Energy Price Risk Management contract is not an investment. We do not buy it to loss or gain money. It is used to mitigate the position by securing a position.

GCRTA Policy:

- Maximum hedge ratio 90% of forecasted consumption
 - For example: If we forecast 1 million gallons of fuel, we can only hedge 900,000 of it
- No interim trading – only if forecasted usage decreases
- Maximum hedge maturity 36 months

Program Objectives:

- It is not an investment – we can't buy and sell
- Its objective is not to make or lose money
- Increases Budget Certainty
- Protects against sharp price increases
- Manages Risk

Here is an example of what happens if diesel prices increase. The current price at the pump is \$2.60. We have contracts to offset December 2022 fuel already at \$1.74. She does not know how much we will sell the contract for and how much we will pay at the pump. Let us say we will sell it at \$2.75. Historically what we sell it for; we pay about \$0.05 more at the pump. Let us say we pay \$2.80 at the pump. We are going to sell for \$2.75 when we pay \$1.74. We are going to have a \$1.01 gain on the sale of this contract. The net cost for Dec. 2022 would be \$2.80 less the \$1.01 gain, which would be \$1.79. Therefore, even though the price went from \$2.60 to \$2.80, because we had these contracts we pay a net price of \$1.79.

Here is an example of what happens if the diesel prices decrease. The current price is \$2.60. We have the contract at \$1.74. What if we have to sell at \$1.45, which means the price at the pump will be \$1.50. Now we will have a loss on this sell. We will sell it at \$1.45. We paid \$1.74. We will lose \$0.29. You would add \$1.50 and \$0.29 to get \$1.79. This example shows that even if the prices goes up or down we pay \$1.79. This provides budget stability.

Program Risk Management

- Narrows gap of both price increases and decreases
 - Authority can handle paying less
 - Cannot quickly react to paying more like in 2008
- Price Peaks – reduces net increase in cost
- Price Drops – reduces net decrease in cost

<u>Year</u>	<u>Status</u>	<u>Avg. Monthly Price</u>
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2022	Fully Hedged	\$1.77
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2023	Fully Hedged	\$1.56
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Most of these contracts were bought in 2020 and a few in 2019 when prices had dropped significantly. We do not have contracts for 2024 because Triskett's CNG station should be up and running soon. Hayden is currently CNG. New Triskett buses coming in will be CNG going forward. By 2024, we will have a small fleet of diesel buses. We will not have enough diesel fuel to buy these contracts because we have to follow the 90% rule. To continue with fuel hedging, we have to consume 560,000 gallons of diesel fuel a year.

Last year for diesel fuel, we budgeted \$3,065,000. Our net cost came in at \$3,422,000. We were \$357,000 (11.6%) over budget. Normally the price is the most variable. In this case, the price amounted to 2.9% of the variability. In August 2015, we started fueling CNG buses at Hayden District. In 2015, we used a total of 4.4 million gallons of diesel fuel. Last year, it went down to 1.7 million gallons. For our CNG buses, it is called a diesel gallon equivalent. The DGE in 2015 was 400,000. For 2021 it was 1.8 million. Our cost went from \$12.5 million in 2015 down to \$4.8 million in 2021. The average cost per gallon for both types of fuels was \$1.38. Diesel was \$2.05. For the CNG

buses, it was \$0.76 per DGE. When you add in the Alternative Fuel Tax Credit, it was \$0.20 per DGE.

Without this program, and the budget certainty it has created, especially in the years we used a lot diesel fuel, we would incur far more pain if the prices went up than relief if the prices went down. Mayor Weiss asked if the program is based on some number of diesel per gallon. Ms. Ulrich said there have been times they have hedged more because of what they assumed service would be. Initially when they hedged, they use the current forecast. Ms. McCall asked if the war in Ukraine would affect fuel cost. Ms. Ulrich said the effects of the war would hit Europe first. Russia supplies 40% of the natural gas to Europe. We are locked in through 2025 or 50%. We have a five-year agreement. We have executed three years of the contract. We have a small portion (2022-2023) that we still have to buy. Our consultant does not anticipate us having a great burden because of the war. We have had a burden with natural gas because of a cold winter and wells freezing, so prices have gone up.

Mayor Weiss asked if the counter parties on these contracts are all well capitalized financial institutions. Ms. Ulrich said we go through RBC. We secure positions on the contracts with New York Harbor ultra-low sulfur diesel. We sell them the month before they are due. We do not take delivery. These institutions are established. Our consultant ensures that it is sold in time so they are taking on all the risk. Mayor Byrne asked if this presentation is related to the presentation Ms. Ulrich did on January on diesel. Mr. Gautam said yes and that is why they did today's presentation to provide an overview on the data.

Climate Action Plan

Brian Temming, Quality Assurance Manager, Engineering and Samantha "Mandy" Metcalf, Planning Team Leader, gave the presentation. This is an update on the development on a Climate Action Plan. On April 21, 2021, President Biden announced greenhouse gas reduction goals by 50%-52% for the United States from the 2005 levels by 2030. In response, FTA created the Sustainable Transit for a Healthy Planet Challenge. There are 170 Transit Agencies participating. In Ohio, Laketran, Akron Metro and Stark are participating.

As a part of this, FTA asked us to develop a Climate Action Plan:

- Build on existing programs
- Set greenhouse gas emissions targets for out years (RTA out years are 2030, 2040 and 2050)
- Create goals and strategies with measurable indicators

The Internal Steering Committee met internally back in Jan-Feb with DGMs, Directors and Managers in various areas of GCRTA's operations on potential strategies. Last week, they met with External Steering Committee. The ESC is comprised of 20 individuals from the City of Cleveland, County, ODOT, NOACA, CWRU, Cleveland Foundation, Clevelanders for Public Transit, Black Environmental Leaders and Ohio Environmental Council and 2030 District. The plan is due to FTA on April 15. They created a baseline year of 2018 because they had the most robust data. They have the data for the fleet, fuel, vehicle miles, and energy readings from our meters and for our facilities. They will track two categories. First is Scope 1 or Direct Emissions from revenue and non-revenue fleet. Scope 2 is Indirect Direct or Purchased Energy. The is the electric and natural gas we use to heat and cool our facilities and electric to operate the rail.

Emissions Calculations:

- Scope 1: Based on fuel usage and vehicle miles

- Data multiplied by vehicle emission factor
- Utilize Greenhouse Gas Protocol – produce a set of factors for vehicle types for fuel consumption
- Scope 2: Based on electric and natural gas usage
 - Data multiplied by emission factor for utility grid
 - Utilize EPA's Emission Factors Hub – emissions produced per megawatt hour for the region. Ohio is in the RSC west region

In 2018, RTA produced 103,685 metric tons of Greenhouse gas emissions. It breaks down to 37% for Scope 1 and 63% for Scope 2. In 2021, we produced 81,036 metric tons, a drop of 21.8%. To help reduce that even further they engaged stakeholders to discuss potential strategies. They broke it down to a few categories of our major contributors to our emissions.

Potential Fleet Strategies:

- Convert all revenue buses (95% of fleet emissions) to non-diesel (mostly CNG) by 2035 – We are in the process of converting to CNG. By 2026, all but nine buses will be CNG. The newer diesel buses will age out in early 2030. By 2035, we should be fully CNG
- Have a 10 bus Electric Bus Pilot in place by 2024
- Expand Electric bus pilot to 20 buses
- Phase out gasoline fueled Non-Revenue and Paratransit Vehicles, replacing with hybrid and electric

Potential Rail Strategies:

- Add all Rail Switch Heaters on the Light Rail Lines to the remote access system – currently the Red Line are on the system. The heaters can be turned on based on the weather. Previously, the heaters would be turned on in October and remain on through Spring
- Complete Substation Renewal Program – the new substations are more energy efficient
- Place new rail cars in service. Efficiency considerations include:
 - On-board regenerative braking
 - Potential to use higher voltage (with additional substation upgrades)
- Complete Light Rail Track Rehabilitation Projects and Catenary Restoration Projects to help minimize stray current.

Potential Facilities Strategies:

- Conduct Energy Audit of all major facilities – to pinpoint which items have the best cost benefit
- Implement currently identified near-term upgrades:
 - Upgrade and fully integrate a Building Automation System at all Major Facilities
 - Replace the floor heating system for the Central Rail Shop
 - Upgrade the HVAC Control system at all substations to be a SMART system with remote access
 - Continue LED lighting retrofits – currently they are retrofitting Paratransit

Potential Energy Source Strategies:

- Install solar panels
 - Possible Locations: Along Windermere spur track, over mainline track, facility parking lots, facility roofs (Hayden roofing project).
 - Power catenary or facilities
 - Own, lease, or host community solar – potential partnership with County
- Clean power purchase – potential partnership with City of Cleveland

Another strategy is displaced emissions. This looks at how RTA affects emissions on a regional level.

The two areas of focus are Mode-Shift to transit, which is a climate action strategy. For every passenger mile traveled on transit, it offsets the vehicle mile traveled by a private vehicle. The ratio is 30%. In 2021, it offset emissions by 9,000 metric tons. The other item is Land Use Benefit. With transit, you can have a more dense community and more people using transit, biking or walking. This can offset GCRTA emissions in climate strategy by 560,000 metric tons.

Potential Ridership Strategies:

- Implement strategies identified in GCRTA 10-year strategic plan, Framework for the Future:
 - Implement the Expanded Funding Concept of the System Redesign, which will increase service by 25%
 - Add BRT amenities on priority corridor routes – designated bus lanes, improved TWE, priority signaling
 - Institute Fare Equity Strategies – fare capping and free fare passes for workforce training purposes

Potential Ridership Goals:

- Ridership Rebound Scenario: Achieve a 10% increase of Passenger Miles Traveled from 2018 (baseline) levels by 2050
- Ridership Growth Scenario: Achieve aggressive ridership growth in line with community-driven mode shift climate plan goals and in partnership with regional policy strategies
 - Example: Cuyahoga County climate change plan goal equivalent to about 20% increase from 2018 levels by 2030
 - Increasing county transit mode share by 2-3% means doubling pre-pandemic ridership (2.5% trips in 2015)

They have estimated the emissions reductions based on the identified strategies. Based on that they set the following emissions targets. The targets are based on the 2018 baseline and reductions of greenhouse gases per passenger miles.

Overall Emission Targets:

- Most Feasible: Achieve reduction of Greenhouse gas emissions / PMT from 2018
 - 10% by 2030
 - 30% by 2040
 - 60% by 2050
- Stretch Target: Achieve reduction of Greenhouse gas emissions / PMT from 2018
 - 40% by 2030
 - 60% by 2040
 - 80% by 2050

The Stretch Target could be achieved by assuming the greater ridership growth scenario.

Challenges:

- Ridership
 - Returning to Pre-pandemic levels
- Implementation
 - Acquiring and implementing required technology

There are external factors like rideshare, regional sprawl and internal factors like budget, service and fare changes that impact ridership. For next steps, they will continue to refine and prioritize the proposed strategies. The Climate Action Plan will be a working document that evolves and enables

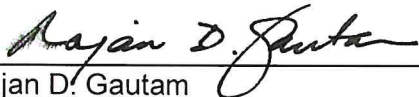
them to track progress. It will be updated annually. We will continue to work with external stakeholders to explore opportunities to collaborate on climate change actions.

Rev. Lucas mentioned that all the electric buses he saw at the APTA conference were electric. He is excited about this work. Mr. Joyce asked how much land we would need to light the facility with solar. Mr. Temming said there is potential to use solar to power our traction power. It could be 56 panels (30x90 or 5.6 megawatts of power per hour). Mayor Weiss asked about the pilot program in 2024. Mr. Temming said the 10-bus pilot program details are being worked on. An RFP should be out by the end of this year. It takes a year to get the buses so they would not be in place until 2024. They are looking at how to power the buses whether that will be at the districts or not. The biggest industry challenge is the range. Many of transit systems' problem routes are their longest routes, but they are still shorter than what our shortest routes are. They envision the next generation of fleet transitioning to electric. They are in the process of converting the CNG. As the newer CNG buses phase out, there may be potential with the next bus purchase that the technology will catch up.

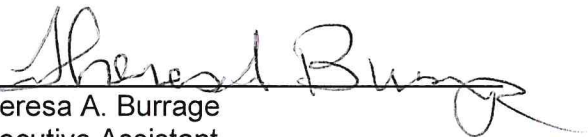
Ms. Birdsong added that in the Strategic Plan there is a section on electric vehicles. There has been a lot of work in the electric vehicle technology. Most agencies use the EV with their trolleys. Many industries are looking at mobile charging stations for longer routes. Dr. Caver added that their team is developing the technical specifications and other opportunities in purchasing the vehicles. The federal government suggest State contracts for a speedier purchase. By the fall, there should be a decision made on how to procure the vehicles. Infrastructure dollar opportunities will be sought out aggressively. Mayor Weiss asked if we are looking at electric for our non-revenue vehicles. Dr. Caver said they would look at this. Ms. Metcalf added that we are partnering with NOACA to install EV chargers at three RTA stations.

Mr. Serrano asked how long it would take to charge a bus. Ms. Birdsong said they had a fleet of 10-12 Proterra electric buses at Nashville. They powered for 3 hours in 3 minutes. The vehicles were 8 years old. There has been headway made with storing the battery in the body of the vehicle, which could be replaced by a mobile truck if needed. Manufacturers and planning teams that had a larger fleets have begun to test battery life on longer routes. Diesel buses can go the entire day before refueling. She has yet to see that on electric vehicles. No action is required on this item.

The meeting was adjourned at 9:45 a.m.



Rajan D. Gautam
Secretary/Treasurer



Theresa A. Burrage
Executive Assistant