

RTA Committee Meetings & Special Board Meeting

March 1, 2022

Greater Cleveland Regional Transit Authority



Nominating Committee

Chair: Terence P. Joyce



Organizational, Services & Performance Monitoring Committee

Chair: Mayor Michael P. Byrne



Energy Price Risk Management Program Update

Presented to: Organizational, Services &
Performance Monitoring Committee

March 1, 2022



History of Price Risk Management Program

Program started in 2009 after sharp Diesel Fuel price increases in 2008

	<u>Jan 2008</u>	<u>July 2008</u>
Pump Price	\$2.64	\$4.16
	<u>2007</u>	<u>2008</u>
Fuel Cost	\$12.1MM	\$19.3MM

What is the Program?

- Establishing pricing in advance through purchase of futures contracts
- Strategically purchasing contracts at perceived low points in market
- Guidance on market provided by Fuel Consultant – Linwood Capital

Program Rules – Ohio Revised Code

- Intended to mitigate, for the TERM of the contract
- A budgetary and financial tool ONLY and not a contract for the procurement of the energy source
- Energy price risk management contract is NOT an investment

GCRTA Policy

- Maximum hedge ratio 90% of forecasted consumption
- No interim trading – only if forecasted usage decreases
- Maximum hedge maturity 36 months

Energy Price Risk Management Program

The Program

- It is not an investment
- Its objective is not to make or lose money
- Increases Budget Certainty
- Protects against sharp price increases
- Manages Risk

Example – Diesel Price Increases

Current Price – Price at pump		\$2.60
Bought contract for Dec 2022 @		\$1.74
Sell contract for Dec 2022@		\$2.75
Dec 2022 – Price at pump		\$2.80
Dec 2022 – Gain on sale	(\$2.75-\$1.74)	<u>\$(1.01)</u>
<u>Net Dec 2022 Cost</u>	<u>(\$2.80-\$1.01)</u>	<u>\$1.79</u>

Example – Diesel Price Decreases

Current Price – Price at pump	\$2.60
Bought contract for Dec 2022@	\$1.74
Sell contract for Dec 2022 @	\$1.45
Dec 2022 – Price at pump	\$1.50
Dec 2022 – Loss on sale (\$1.45-\$1.74)	<u>\$0.29</u>
<u>Net Dec 2022 Cost</u> (\$1.50+\$0.29)	<u>\$1.79</u>

Energy Price Risk Management Program

Program Risk Management

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

Fuel Hedge Contract Status

<u>Year</u>	<u>Status</u>	<u>Avg Monthly Price</u>
2022	Fully Hedged	\$1.77
2023	Fully Hedged	\$1.56

YTD 2021 Diesel Fuel

Budgeted Cost	\$3,065,000
Net Cost	<u>3,422,000</u>
(Over)/Under	<u>\$ (357,000)</u>
Total % over budget	11.6%
Gallons % over budget	8.4%
Price % over budget	2.9%

Total Diesel & CNG Fueling (in millions)

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Diesel Gallons	4.4	3.4	3.0	2.5	2.1	1.7	1.7
<u>CNG Diesel Gal Equiv</u>	<u>0.4</u>	<u>1.2</u>	<u>1.4</u>	<u>1.5</u>	<u>1.7</u>	<u>1.6</u>	<u>1.8</u>
Cost - Diesel+CNG	\$12.5	\$9.9	\$7.8	\$5.6	\$5.0	\$4.8	\$4.8
Cost/Gal	\$2.59	\$2.16	\$1.79	\$1.43	\$1.30	\$1.44	\$1.38
Cost/Gal Net of Tax Cr	\$2.54	\$2.01	\$1.61	\$1.22	\$1.05	\$1.17	\$1.09

Greater Cleveland Regional Transit Authority



GCRTA Climate Action Plan

Organizational, Services & Performance
Monitoring Committee

March 1, 2022

History

- April 21, 2021, President Biden announced greenhouse gas reduction goals for the United States
- In response, FTA created the Sustainable Transit for a Healthy Planet Challenge
- 170 Transit Agencies are participating

Healthy Planet Challenge

- Develop a Climate Action Plan
 - Build on existing programs
 - Set greenhouse gas emissions targets
 - Create goals and strategies with measurable indicators

Project Milestones

- Internal Steering Committee: Jan-Feb
 - DGMs, Directors and Project Managers in various areas of GCRTA's operations
- External Steering Committee: February 23
- Board Committee Presentation: March 1
- Plan Due to FTA: April 15

Baseline Year

- 2018 established as baseline year
 - Robust data
 - Pre-pandemic
- Tracking two categories of emissions
 - Scope 1: Direct Emissions
 - Scope 2: Indirect Direct - Purchased Energy

Emission Calculations

- Scope 1: Based on fuel usage and vehicle miles
 - Data multiplied by vehicle emission factor
 - Utilize Greenhouse Gas Protocol
- Scope 2: Based on electric and natural gas usage
 - Data multiplied by emission factor for utility grid
 - Utilize EPA's Emission Factors Hub

Emission Breakdown

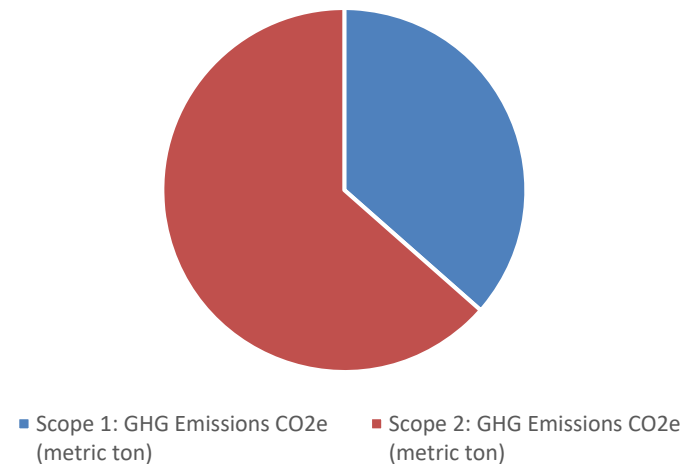
GCRTA produced 103,685 metric tons CO₂e in 2018

- 37% Scope 1
- 63% Scope 2

GCRTA produced 81,036 metric tons CO₂e in 2021

- 21.84% drop from 2018

2018 Emissions by Category



Potential Fleet Strategies

- Convert all revenue buses to non-diesel (mostly CNG) by 2035
- 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
- Complete Substation Renewal Program
- 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
- 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

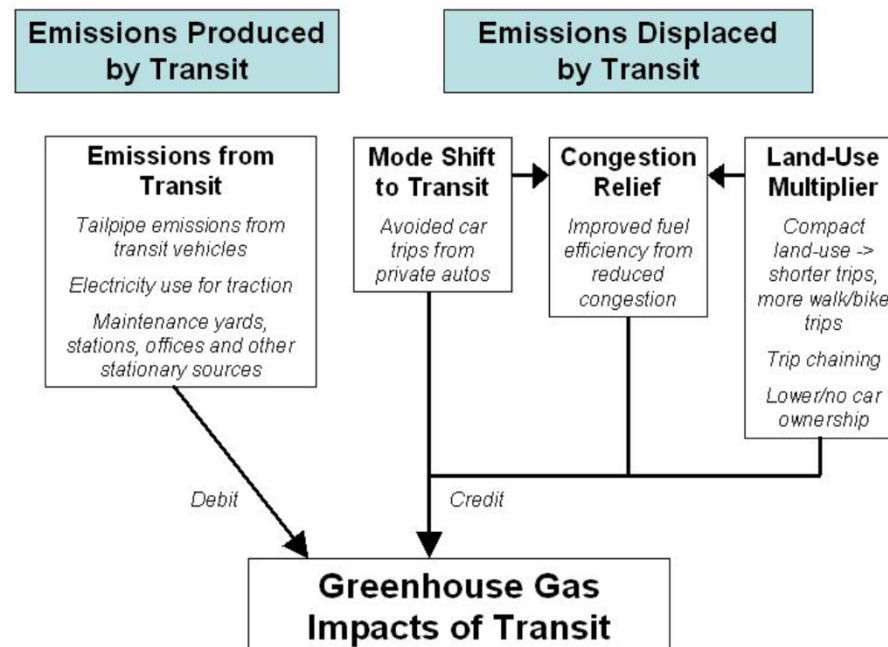


Potential Energy Source Strategies

- 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
- Clean power purchase

Displaced Emissions

- Mode-shift to transit is a climate action strategy
- Can offset GCRTA emissions in climate strategy



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
 - Institute Fare Equity Strategies



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)

Overall Emission Targets:

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

Challenges

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

Next Steps

- Finalize the Climate Action Plan
 - Deadline to submit, April 15, 2022
- Track Progress
- Update Climate Action Plan on Annual Basis

Questions



Special Board Meeting

Chair: Rev. Charles P. Lucas



Farewell to Leo Serrano



Executive Session

Greater Cleveland Regional Transit Authority

