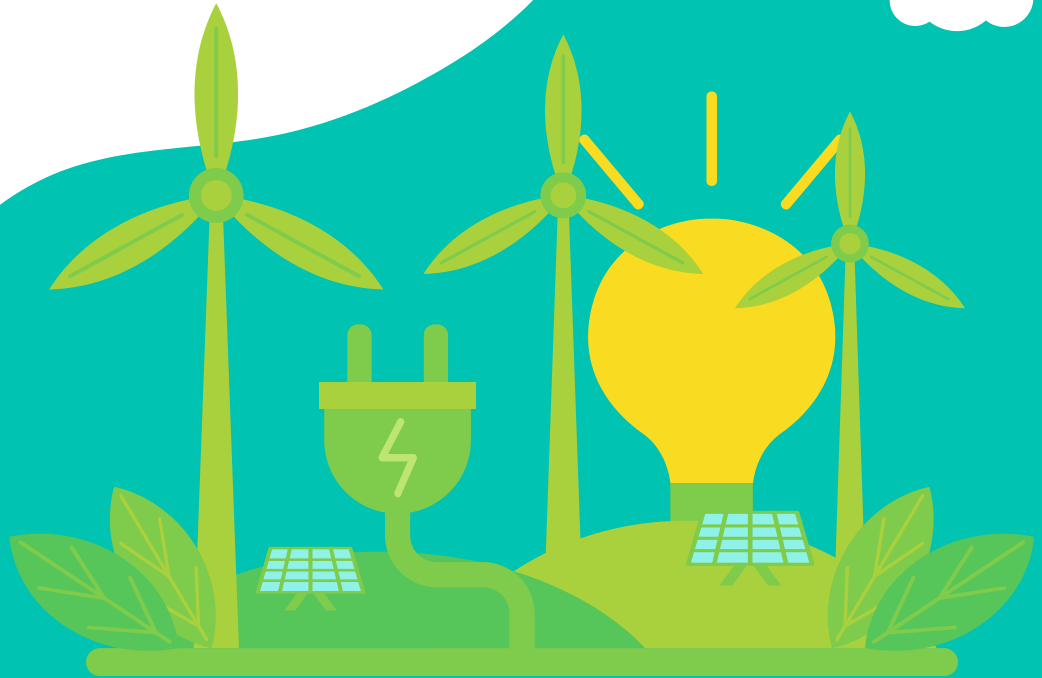


# CLEAN ENERGY

## 2030

Clean Energy Task Force  
Draft Report

February 9, 2022



# BACKGROUND

Board Resolution **No. 21-010** approved April 2021:  
District to achieve 100% clean energy by 2030 –  
Clean Energy 2030 Task Force assembled to realize clean  
energy goal

M-DCPS  
GREENHOUSE  
GAS EMISSION  
DISTRIBUTION:

87%

Buildings and Operations

8%

Transportation

5%

Solid Waste



\$65 million  
spent  
on **Electricity**



\$35 million  
spent  
on **Water**



13 million diesel  
**Bus Miles**  
logged



16.5 million  
**White fleet  
Miles**  
logged



35 million  
**meals** served

## YEARLY EXPENDITURES

# WHAT M -DCPS HAS DONE TO DATE

## Office of Design and Sustainability

Replacement of fluorescent lights with LED lighting

Installation of high-efficiency HVAC systems and occupancy sensors

Equipping of new buildings with solar-ready roofs and increased building insulation

Completed a greenhouse gas (GHG) inventory that established a baseline of the District's GHG emissions

## Department of Food and Nutrition

Increased engagement with students, staff, and community partners

Replacing Styrofoam trays with compostable trays

Removed plastic straws from utensil packets

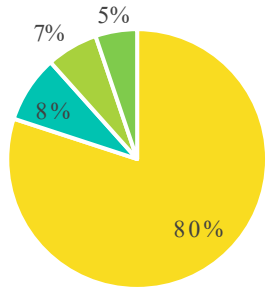
Expansion of school gardens and Food Forests

Increased plant-based menu options

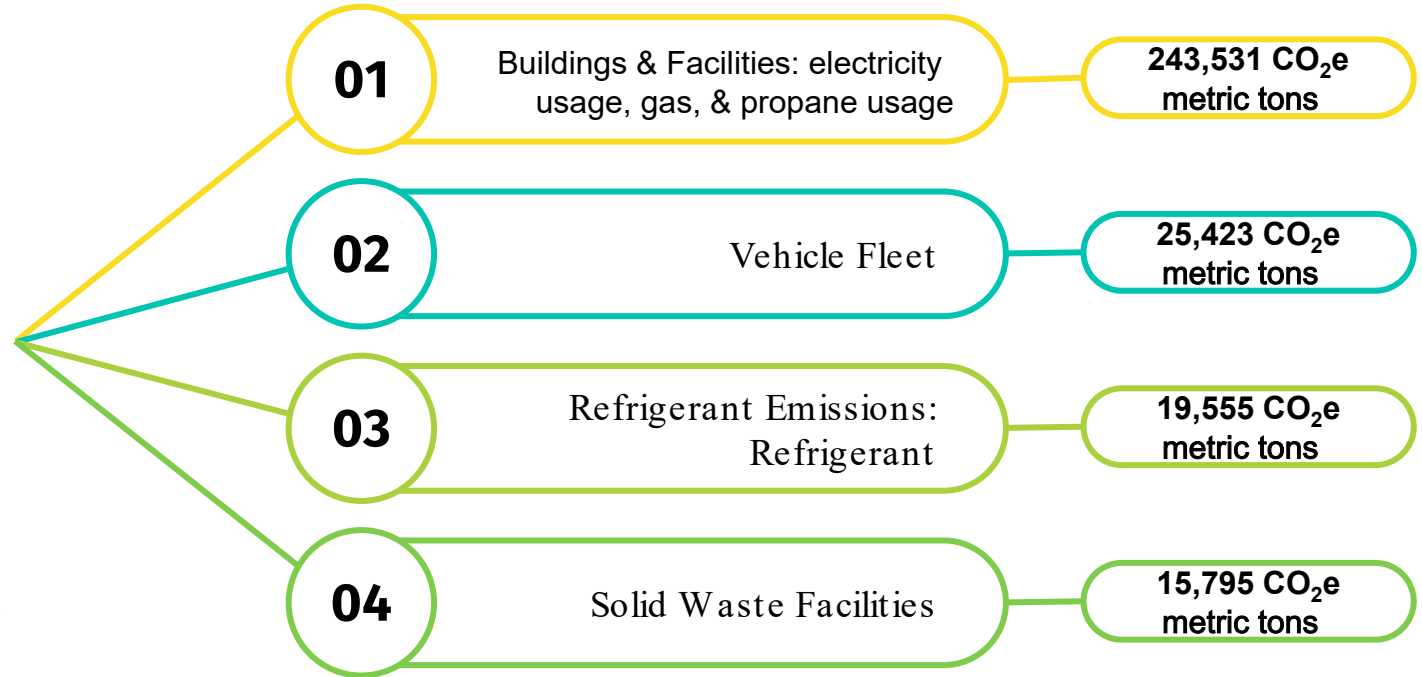


# GREENHOUSE GAS INVENTORY ASSESSMENT

CO<sub>2</sub> Emissions

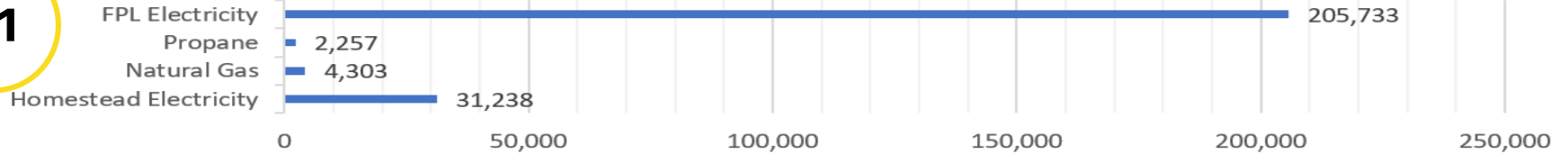


- Buildings & Facilities
- Vehicle Fleet
- Refrigerant Emissions
- Solid Waste Facilities

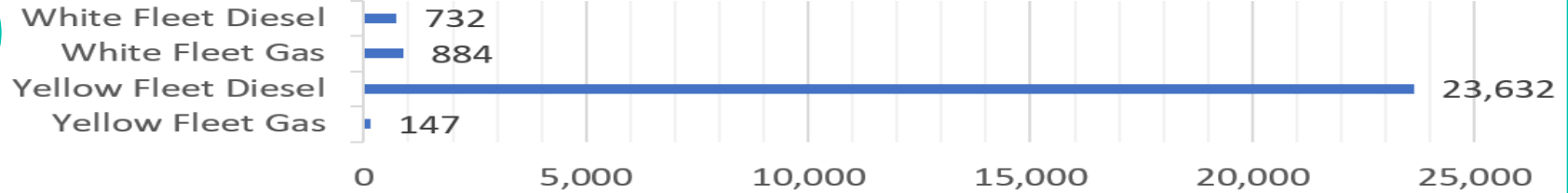


# GREENHOUSE GAS INVENTORY ASSESSMENT BREAKDOWN

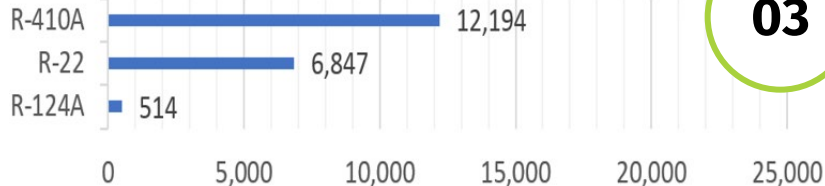
01



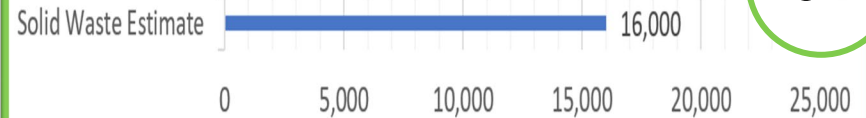
02



03



04



# THE CLEAN ENERGY TASK FORCE

## 6 Pillars Adopted:

Energy  
Conservation

Water  
Stewardship

Renewable  
and Clean  
Energy

Transportation

Redefining  
Waste and  
Greening  
Operations

Holistic  
Education

## 4 Subcommittees Created:

Energy  
Conservation  
and Water  
Stewardship

Renewable  
and Clean  
Energy

Transportation,  
Redefining Waste,  
and Greening  
Operations

Sustainability  
and Holistic  
Education



# RECOMMENDATION CATEGORIES

01. Implementation and Accountability
02. General/Behavioral Changes
03. Existing Buildings
04. New Construction
05. Renewable and Clean Energy
06. Transportation
07. Redefining Waste
08. Greening Operations
09. Holistic Education

# 01 IMPLEMENTATION & ACCOUNTABILITY



## 1.1

Create a dedicated Sustainability Department to oversee and implement recommendations.

**Implementation Costs** : \$350,000++  
dependent on department size

**Implementation Savings/Benefits:**  
TBD

**Resources for Funding** : TBD

**Estimated Carbon Reduction:** TBD

**Schedule to Complete:** End of 2022

## 1.2

Update Greenhouse Gas (GHG) Inventory every two years.

**Implementation Costs** : \$0; some staff time to gather data

**Implementation Savings/Benefits:**  
TBD

**Resources for Funding** : TBD

**Estimated Carbon Reduction:** TBD

**Schedule to Complete:** End of 2023

# 02 GENERAL/ BEHAVIORAL CHANGES

## ENERGY CONSERVATION & WATER STEWARDSHIP

2.1

Provide schools with water and energy consumption statistics

2.4

Create and implement a policy for turning lights off in unoccupied rooms

2.2

Codify incentive and educational programs and create and implement associated marketing campaigns

2.3

Create and implement a policy for keeping doors and windows closed



Make the Change  
**PLASTIC-FREE LUNCH**



# 03 EXISTING BUILDINGS

## ENERGY CONSERVATION & WATER STEWARDSHIP



3.1

Implement Energy Management Systems (EMS) or Building Automation Systems (BAS) in all buildings for lights, chillers, HVAC, air handler units, etc.

3.4

Accelerate LED light bulb conversion to achieve 100% by 2030

3.2

Use Energy CAP software to create a scorecard, identifying buildings/assets with the most cost-effective opportunities to reduce consumption

3.5

Explore methods and evaluate costs/benefits for creating a fund for self-financing the retrofits as well as using Guaranteed Energy Performance Contracts (GEPC)

3.3

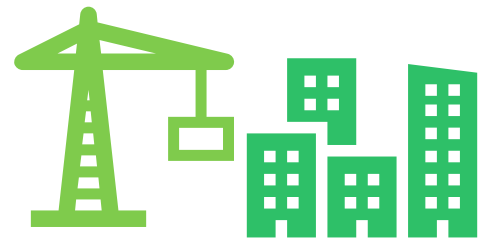
Double staff capacity to conduct in-house building audits of identified high-consumption buildings

3.6

Establish and implement a commissioning and retro-commissioning policy

# 04 NEW CONSTRUCTION

## ENERGY CONSERVATION & WATER STEWARDSHIP



4.1

Implement energy and water efficiency performance standards that are higher than required under building code

4.2

Achieve a maximum Energy Use Intensity (EUI) of 25 in all new structures and achieve a score above minimum certification level

4.3

Implement commissioning (includes building envelope testing) in all new projects

# 05 RENEWABLE AND CLEAN ENERGY

5.1

Rooftop solar installation strategies

5.2

Install solar with battery backup for evacuation shelters

5.3

Work with FPL to reduce emissions

5.4

Push for policy changes to allow for PPA for schools

5.5

Utilize public/private partnerships to gain access to new technologies through pilot programs and experimental projects

5.6

Begin the evaluation process for procuring RECs equal to the remaining energy usage (after all energy savings measures are implemented)



# 06 TRANSPORTATION



6.1

Replace 999 diesel buses with quiet, clean Electric School Buses (ESB)

6.4

Bike and walk to school: implement safe routes to schools and bike infrastructure

6.2

Reduce bus idling to under 10 minutes

6.5

Promote car-charging options for students and teachers with designated low emission EV parking spots

6.3

Increase carpooling rates by 20%



# 07 REDEFINING WASTE

TRANSPORTATION, REDEFINING WASTE, AND GREENING OPERATIONS

7.1

Waste diversion: recycling and composting

7.2

Plastic waste reduction

7.3

Reduce food waste and increase plant-rich diets



**A**  
ZERO  
WASTE  
CULTURE



# 08 GREENING OPERATIONS

8.1 | Manage refrigerant and fugitive emissions

8.2 | Expand Food Forests in schools across the District

8.3 | Increase the number of Florida DEP Green Apple Schools by 10% each year

8.4 | Adopt an Environmentally Friendly Purchasing Policy

8.5 | Parking greening and innovation



# 09 SUSTAINABILITY & HOLISTIC EDUCATION

9.1

Expanding Sustainability Curricula: Review and expand sustainability focus within schools and strengthen existing programs

9.2

S<sup>2</sup>TEAM: Work with STEAM program to include a sustainability component

9.3

Partnerships: Build and expand upon existing partnerships with universities, community-based organizations, local governments, and private sector

9.4

Connect curriculum and student initiatives with other policy recommendations

9.5

Design and install signage informing and educating school communities about resource use and behaviors






**Goal:  
100% clean  
energy!**



# Thank You



M-DCPS Design and Sustainability  
**Clean Energy Task Force**

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