

FY 2023

# GREEN FOOD REPORT

\*\*\* DEPARTMENT  
OF ENERGY &  
ENVIRONMENT



DC GOVERNMENT  
Office of Contracting  
and Procurement

WE ARE WASHINGTON  
DC GOVERNMENT OF THE  
DISTRICT OF COLUMBIA  
MURIEL BOWSER, MAYOR



## Overview

In the United States, agriculture is responsible for 10% of annual greenhouse gas (GHG) emissions.<sup>1</sup> While food production is not the primary cause of climate change and its harmful effects on the District, action must be taken to address food-related GHG emissions in order to prevent additional warming and keep the planet within a habitable temperature range. The Green Food Purchasing Amendment Act of 2021 (GFPAA)<sup>2</sup> was enacted to reduce food-related emissions and augment climate mitigation efforts throughout the District. This law requires the Department of Energy and Environment (DOEE), in consultation with the D.C. Office of Contracting and Procurement (OCP), to take the following actions:

1. Adopt a methodology for the District to estimate GHG emissions associated with food and beverages purchased by covered agencies;
2. Use that methodology to establish a baseline assessment of agencies' food<sup>3</sup>-related GHG emissions;
3. Develop and implement best practices for agencies to reduce their food-related GHG emissions;
4. Reduce food-related emissions according to the following schedule:
  - a. By FY25, a 10% reduction;
  - b. By FY27, an 18% reduction; and
  - c. By FY30, a 25% reduction; and
5. Publish an annual report on the District's overall progress in reducing food-related GHG emissions and policy recommendations to further reduce food-related emissions.

"Covered agency" refers to all District agencies that provide meals to residents, either directly or through an independent contractor, and made at least one food and/or beverage purchase of at least \$10,000 in the past year. Agencies that meet these criteria must be included in the baseline assessment and are subject to best practice recommendations. An analysis of food purchases at District agencies determined that the agencies covered by the GFPAA are the Department of Corrections (DOC), District of Columbia Public Schools (DCPS), Department of Human Services (DHS), Department of Parks and Recreation (DPR), Department of Youth Rehabilitation Services (DYRS), Department of Aging and Community Living (DACL), Department of Behavioral Health (DBH), and the Department of Employment Services (DOES).

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1. U.S. Environmental Protection Agency, 2023. "Sources of Greenhouse Gas Emissions." Retrieved from [www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions](https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions)

2. [code.dccouncil.gov/us/dc/council/laws/24-16](https://code.dccouncil.gov/us/dc/council/laws/24-16)

3. Throughout this report, "food" refers to both food and beverages.

## Program Development

The GFPAA was enacted in June 2021 and included funding for one full-time staff member at DOEE to implement the law's requirements. A staff member was hired and onboarded in October 2022. The GFPAA required DOEE to establish a baseline assessment of food-related emissions and develop best practices to reduce emissions by January 1, 2023. DOEE will report on annual progress toward the targets starting July 1, 2025.

## Adoption of a Methodology to Estimate GHGs and Calculation of Baseline Emissions

To comply with the first requirement of the GFPAA – adopt a methodology to estimate the District's food-related GHG emissions – the District signed the Coolfood Pledge,<sup>4</sup> an initiative developed by the World Resources Institute (WRI) that helps organizations reduce the climate impact of the food they purchase. Coolfood Pledge members commit to reducing their food-related emissions by 25% by 2030, which is consistent with the GFPAA's target for FY30. Pledge members report food purchase weight to WRI annually, and WRI determines the GHG emissions associated with the reported food. WRI's CoolFood Calculator uses food quantity data to calculate related emissions for each food type based on a global life cycle meta-analysis by Poore and Nemecek.<sup>5</sup>

Coolfood signatories submit annual food and beverage purchase quantities (in kg or lb) to WRI for each food type using the Coolfood Pledge Annual Food Purchase Tracking Sheet. WRI requires signatories to track certain food types (i.e., plant and animal proteins such as meat and poultry, fish and seafood, dairy, eggs, grains, legumes, nuts, and plant-based meat/dairy substitutes.) These foods typically account for over 80% of food-related GHG emissions. Signatories may also choose to track and report other food types, such as fruits, vegetables, oils, and spices, if desired. DOEE chose to track these optional food types wherever possible.

To track food purchasing data, the Green Food team at DOEE asked covered agencies to send food vendor invoices that included the type and quantity of each food item purchased. DOEE found that agencies could provide the most complete food purchasing data from calendar year 2021. Therefore, calendar year 2021 was selected as the baseline year. However, not every agency was able to provide complete data from that year in the format required by WRI. For some agencies, DOEE did not receive data from all contracted food vendors, and in some cases exact food quantities were not provided. In those instances, DOEE extrapolated quantities based on the average cost per unit weight or average serving size. Thus, while WRI's baseline data report is likely a very close estimate of the District's food-related emissions, it should not be considered an exact calculation of emissions.

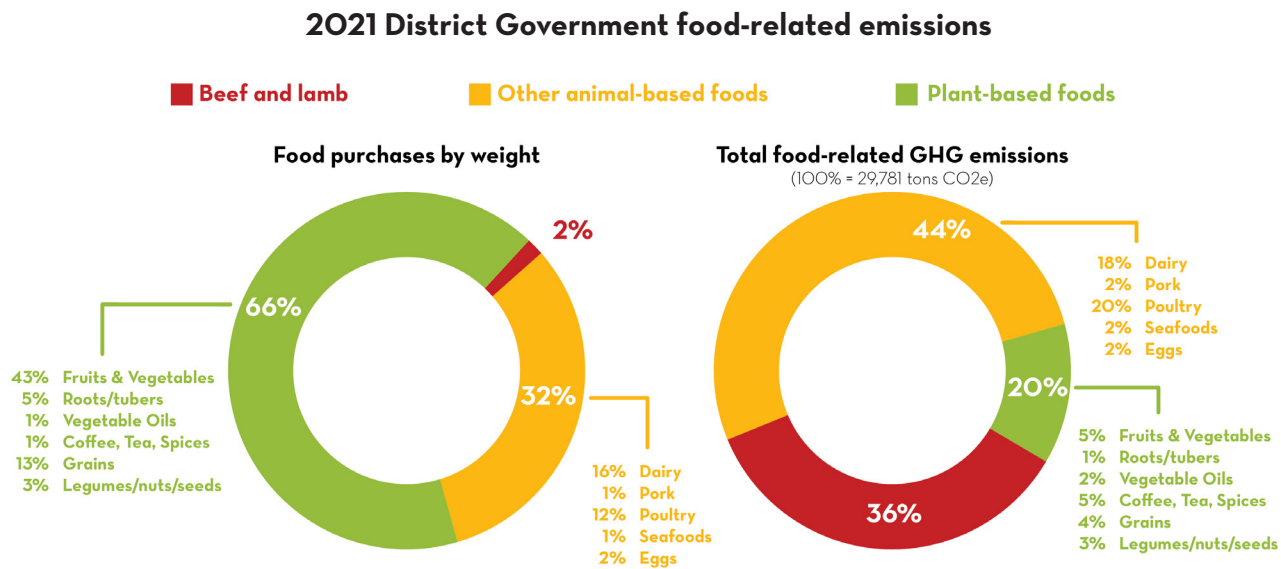
Once each agency's 2021 food purchasing data was collected, categorized, and entered into the Coolfood Tracking Sheet, the completed sheet was sent to WRI. The Coolfood Data Analysis Team at WRI then calculated the GHG emissions associated with the District's purchased food using regional emission factors by food type.

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4. [coolfood.org/pledge/](https://coolfood.org/pledge/)

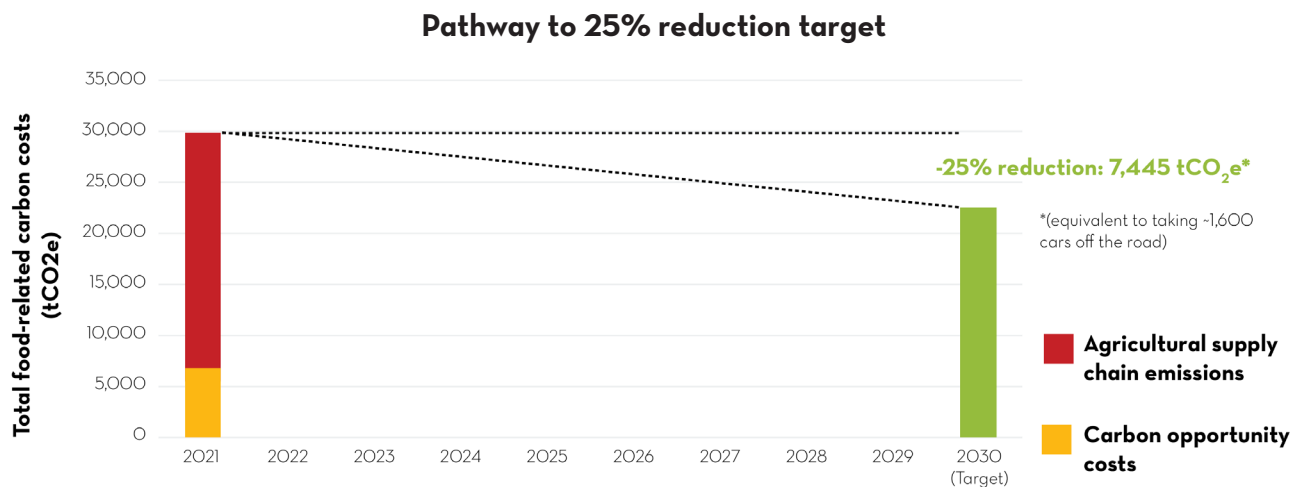
5. Poore, J., and T. Nemecek. 2018. "Reducing Food's Environmental Impacts through Producers and Consumers." *Science* 360 (6392):987-92. doi:10.1126/science.aag0216.

Figure 1 shows the District’s total 2021 food purchases by weight, categorized by food type, and total GHG emissions for each food type. Although ruminant meats (i.e., beef and lamb) only accounted for 2% of the total weight of food purchased in 2021, they account for over a third of food-related emissions. Altogether, animal-source foods accounted for 34% of food purchased by weight and 80% of food-related emissions.



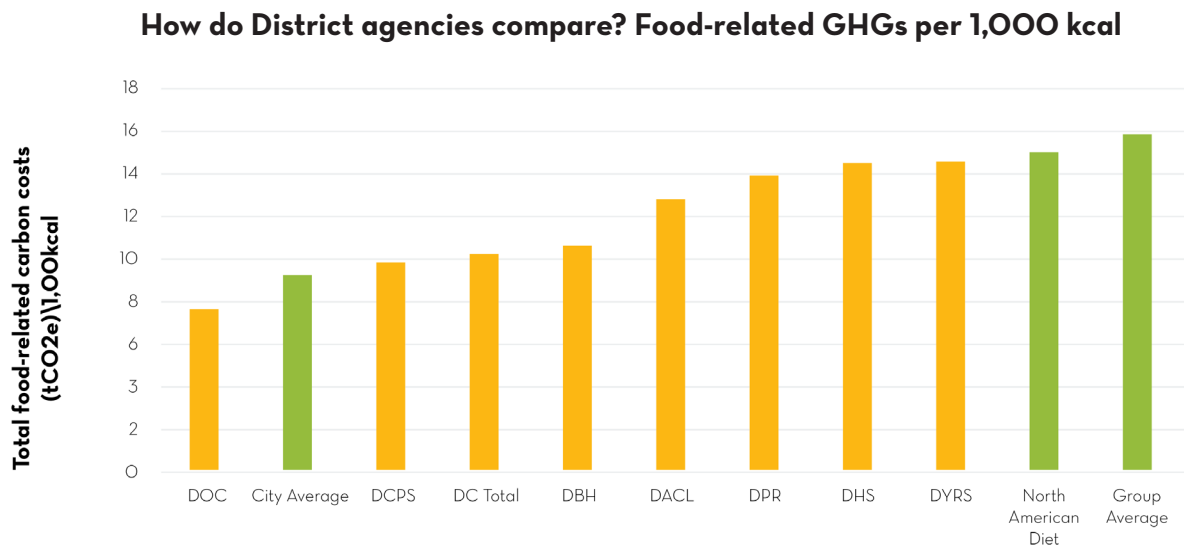
**Figure 1**

Figure 2 depicts the District’s pathway to a 25% reduction in total food-related emissions, which the GFPAA mandates the District to meet by FY30. This will require reducing emissions from the 2021 baseline of 29,781 tons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) to 22,336 tons of CO<sub>2</sub>e, for an absolute reduction of 7,445 tons of CO<sub>2</sub>e. Agricultural supply chain emissions refer to the cradle-to-point-of-purchase emissions that are directly caused by the production, processing, and transport of food. Carbon opportunity costs refer to the emissions resulting from the land use change (e.g., deforestation and cropland conversion) required for food production.



**Figure 2**

Figure 3 measures the food-related emissions intensity (i.e., the total food-related emissions per 1,000 kcal of food purchased) of each District agency and shows how individual agencies compare to the emissions intensity of the District as a whole (the “DC Total” bar), the average North American diet,<sup>6</sup> the average for other City signatories of the Coolfood Pledge (the “City Average” bar),<sup>7</sup> and the average for all signatories<sup>8</sup> of the Coolfood Pledge (the “Group Average” bar). Note that although DOES is a covered agency as it purchased at least \$10,000 worth of food in the past year, DOES staff were not able to provide detailed food purchasing data for 2021 and thus are not included in the baseline analysis.



**Figure 3**

Certain agencies, such as DOC and DCPS, have already implemented procurement practices that are less carbon-intensive and largely in alignment with the best practices discussed later in this report. For example, DCPS has adopted the Good Food Purchasing Program (GFPP),<sup>9</sup> which encourages DCPS to align its food purchasing with five core program values, including environmental sustainability. These agencies should be recognized for their achievements and highlighted as examples for other agencies to emulate. Development and implementation of best practices should be targeted at agencies with higher emissions-intensive food purchasing.

## Development of Best Practices

After the District’s baseline food-related emissions were calculated, the Green Food team (comprising staff from DOEE and OCP) developed best practices to reduce emissions in accordance with the GFPAA’s reduction schedule. Since red meat has the highest emissions out of all food types included in the analysis, reducing agencies’ red meat purchases would have the greatest impact on emissions reduction. A variety of strategies have been identified to reduce red meat consumption and increase

6. Emissions associated with the average North American diet are calculated based on 2015 FAOSTAT regional food supply data.

7. Other City signatories of the Coolfood Pledge include New York City, Copenhagen, Ghent, Milan, and Toronto.

8. See a list of signatories under the “Our Members” section on this page: [coolfood.org/pledge/](https://coolfood.org/pledge/)

9. [goodfoodpurchasing.org/](https://goodfoodpurchasing.org/)



the consumption of plant-rich dishes. WRI has developed a playbook<sup>10</sup> with 57 such strategies for food service providers, such as reducing the amount of meat in a dish, increasing the number of plant-rich dishes offered, and using appealing language to describe plant-rich dishes on menus. In addition to the amount of red meat that is purchased using behavior change strategies may also help DC meet emissions reduction targets.

We also partnered with the Nutrition and Physical Fitness Bureau at the DC Department of Health to ensure that best practices were grounded in science, nutritionally adequate, and supported health equity. Red and processed meat, in addition to their impacts on climate, are associated with increased risk of chronic diseases including cardiovascular disease, diabetes, and colorectal cancer. Thus, in addition to reducing emissions, limiting purchases of red and processed meat may have a direct positive impact on the health outcomes of District residents, in particular vulnerable ones served by our agencies.

The Green Food team analyzed actions taken by other jurisdictions that have implemented programs to reduce food-related emissions. Specifically, New York City (NYC) – which is also a signatory of the Coolfood Pledge – has developed citywide food standards that apply to all agencies that procure and serve food. The standards limit agencies’ weekly servings of red and processed meat and require at least one serving of a plant-based entrée per week.

Based on the NYC food standards and input from DC Health, DOEE developed guidelines to limit agencies’ servings of red and processed meat and require at least one plant-based option at every meal. The Green Food team drafted contract language to incorporate these guidelines into the requirements section of agencies’ contracts with food vendors. In addition, the Green Food team wrote a clause requiring agencies to submit food purchasing data annually to DOEE, fulfilling the GFPAA’s requirement that DOEE track food-related GHG emissions and enabling continued refinement from the initial baseline assessment. The contract language is as follows:

***Food procurement tracking clause (note that this is mandatory under the GFPAA)***

*Each quarter, the contractor must submit to DOEE purchasing records that include the weight or volume of each food and beverage item purchased under the contract. These documents must be emailed to [contract administrator email] and to [greenfood@dc.gov](mailto:greenfood@dc.gov).*

***Reducing food-related emissions clause***

*The contractor may serve no more than two servings of red meat (i.e., beef, swine, or lamb) per week.*

*Each week, the contractor must limit processed meat servings to no more than one per breakfast, one per lunch, and one per supper. Processed meat refers to meat preserved by smoking, curing, salting, or the addition of chemical preservatives and includes ham, bacon, sausages, hot dogs, and deli meats ([www.aicr.org/resources/blog/what-is-processed-meat-anyway/](http://www.aicr.org/resources/blog/what-is-processed-meat-anyway/)).*

*Each meal the contractor serves must include at least one completely plant-based option.*

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10. [www.wri.org/research/playbook-guiding-diners-toward-plant-rich-dishes-food-service](http://www.wri.org/research/playbook-guiding-diners-toward-plant-rich-dishes-food-service)

The Green Food team disseminated this contract language to covered agencies, which are responsible for adding the language to their food service contracts. Staff from DC Health have joined DOEE in meetings with agencies to answer any questions staff may have on the health impacts of reducing red meat purchasing or complying with nutritional guidelines. DOEE will use purchasing records submitted annually by covered agencies to continually track food-related emissions and determine whether the District is on track to meet emissions reduction targets.

## Challenges and Limitations

- **Lack of complete data.** Although some agencies were unable to provide complete 2021 food purchasing data, DOEE recorded baseline procurement data as accurately as possible, and we believe the baseline emissions calculation is a close estimate to the District's true emissions. Additionally, due to the new contract clause requiring vendors to submit annual data to DOEE, we believe that food procurement data and emissions calculations will be even more accurate in the future.
- **Food purchasing regulations and requirements.** Agencies must comply with various food service regulations. For example, food served at DCPS must comply with U.S. Department of Agriculture (USDA) Nutrition Standards for School Meals, District of Columbia contracting and procurement regulations, the DC Healthy Schools Act, and the GFPP. The DOC must comply with the American Correctional Association's Certification Standards for Food Services Programs and the National Commission on Correctional Health Care Standards for Health Services in Prisons. After reviewing federal food service nutrition guidelines and consulting with DC Health, the Green Food team found that requirements to limit red and processed meat and increase availability of plant-based food do not conflict with other nutrition requirements.
- **Complex food contracting and procurement processes.** As most agencies renew their food service contracts on an annual basis, contract administrators that were given the GFPAA guidelines in June 2023 may not be able to insert them into contracts until the following fiscal year. Some agencies may be able to carry out a contract amendment to insert the guidelines into an existing contract, but this is also a lengthy, multi-step process. As a result of the delay in implementing the GFPAA guidelines, the District may not see meaningful change in food-related emissions reporting until 2025.
- **Acceptability of plant-based menu items.** Many District residents may be unaccustomed to certain plant-based foods, especially meat alternatives such as tofu or soy-based burgers. Thus, as agencies are required to increase their plant-based offerings they may receive pushback from individuals served food purchased by the District.

## Successes

- **Baseline food-related emissions calculation.** The Green Food team compiled the District's 2021 food purchasing data and submitted it to WRI, which calculated the associated baseline emissions data.
- **Collaboration with other jurisdictions.** The Green Food team met with the NYC Food Policy team to learn how NYC is implementing Coolfood and reducing food-related emissions at city agencies. The NYC team shared that citywide food standards centered around health and nutrition have been instrumental in reducing emissions, as has the support of NYC Mayor Eric Adams, who credits a plant-based diet for helping to control his Type 2 diabetes.
- **Partnership with DC Health.** DOEE also partnered with staff from DC Health, which reviewed the GFPAA guidelines and supported the Green Food team in disseminating them to District agencies. The GFPAA requires that all food purchased by District agencies have sufficient nutritional value, and input from DC Health will ensure that this condition is met.
- **Briefing for agency staff.** On June 26, 2023, DOEE and WRI co-hosted a briefing on the GFPAA as well as the climate impact of food and best practices for reducing food-related emissions. The briefing was attended by about 30 food contract administrators, food vendors, and other stakeholders. DOEE received valuable feedback and answered attendees' questions about the GFPAA. The briefing was recorded and sent to attendees along with the presentation slides and other resources on serving plant-forward meals and reducing food-related emissions.

## Next steps

- **Development of additional best practices.** Future practices may include further limiting servings of red and processed meat and requiring agencies to serve plant-based entrees more frequently. In addition to red and processed meat, DOEE may consider updating best practices to limit servings of chicken, dairy, and shellfish. For some agencies, it may be appropriate to implement behavioral interventions and "nudges" to encourage individuals to voluntarily reduce food-related emissions, such as using appealing, appetizing language when naming plant-based dishes and offering plant-based entrees as the default menu item.
- **Continued data collection.** DOEE will continue to submit agencies' food purchasing data to WRI so that food-related emissions can be calculated. We anticipate that this will be facilitated by new contract language requiring food vendors to submit annual purchasing data to DOEE. As required by the GFPAA, beginning on February 1, 2025, DOEE will publish a yearly report on its website on the District's progress toward reducing food-related emissions and any best practices that have been implemented.
- **Increased focus on embodied carbon.** Beyond this first focus on reducing emissions from District Government food and beverage procurement, the District is advancing its larger strategy to assess and reduce the carbon embodied in the goods, services, and activities on which the city runs. As a first step, DOEE will conduct a citywide consumption-based emissions



inventory in 2024 to quantify the main sectors and materials driving these emissions. District Government must be a leader in achieving reductions by harnessing government purchasing to reduce emissions associated with government operations and support the market for low-carbon goods and materials. DOEE and OCP have made significant progress in implementing the Environmentally Preferable Products and Services (EPPS) program. For example, DOEE hired two full-time staff members to oversee EPPS and has developed a comprehensive list of products and services to be included in an EPPS certification and training program. Given the carbon intensity of commonly used construction materials, such as concrete and steel, DOEE has begun working with sister agencies to explore the local market for low-carbon building materials and identify strategies to measure and reduce the lifecycle carbon impacts of capital construction projects.

## **Conclusion**

Since the GFPAA was enacted in 2021, DOEE has made considerable progress in implementing the law's requirements. In October 2022, a full-time staff member was hired to oversee the implementation of the law. The baseline assessment of the District's food-related emissions has been completed and best practices to reduce emissions – namely, limiting red and processed meat and requiring plant-based options – have been disseminated to covered agencies. Over the next year, DOEE will continue to collect food purchasing data from covered agencies and track progress towards the GFPAA's emission reduction targets. If needed, the Green Food team will develop further limitations on red and processed meat that agencies will be required to include in food purchasing contracts.

As a result of the GFPAA, District agencies can positively impact planetary and human health via the meals they serve. By mandating environmentally sustainable, low-carbon food procurement practices, this law aims to benefit the environment, economy, community health, and equity of the DC metropolitan region.