

# RECYCLING THE RAD WAY

U.S. ENVIRONMENTAL PROTECTION AGENCY'S RESPONSIBLE APPLIANCE DISPOSAL (RAD) PROGRAM

2017 PROGRAM UPDATE

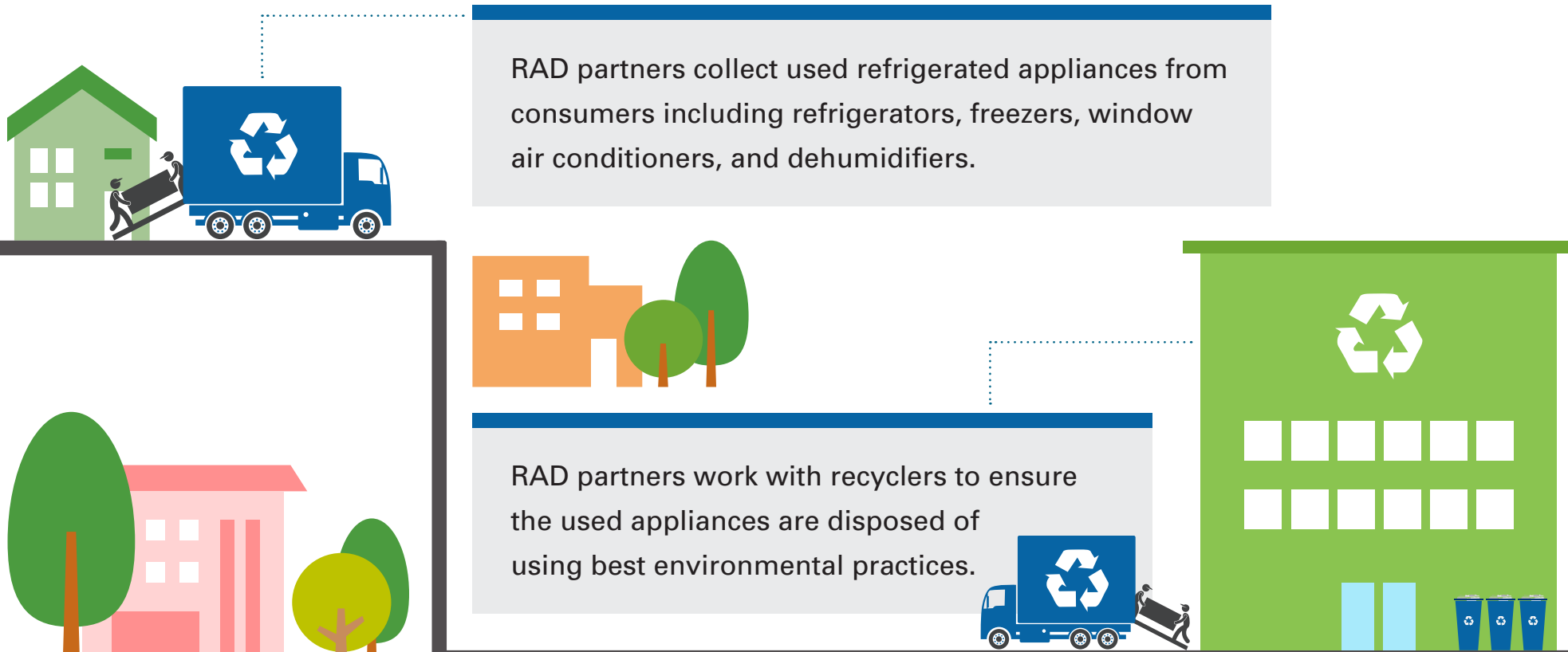


## WHAT IS RAD?

RAD is a voluntary partnership program that works with utilities, retailers, manufacturers, states, affiliates, and others to collect used refrigerated appliances and implement best environmental practices for the disposal of these units—going beyond federal requirements to protect Earth's climate and ozone layer.

As a result of their commitments, RAD partners prevent emissions that are harmful to the environment, prevent the release of hazardous substances, save landfill space through recycling, and reduce energy consumption.

## HOW DOES RAD WORK?

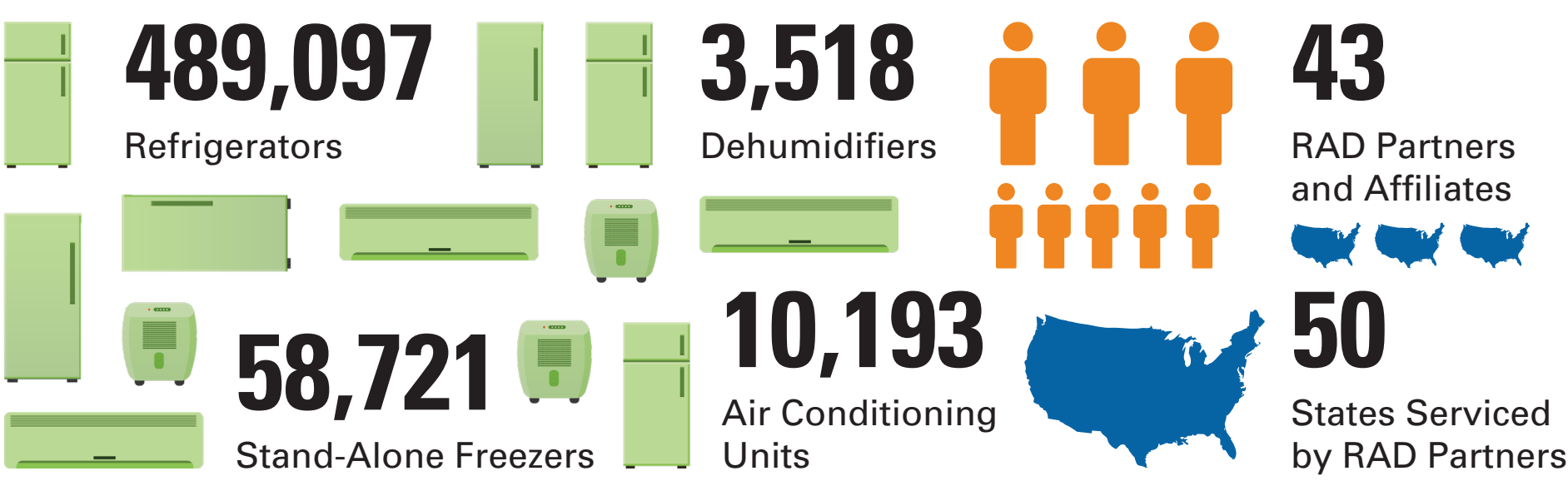


### Best environmental practices include:

- Complying with laws on the recovery of refrigerant, used oil, and polychlorinated biphenyls (PCBs)
- Retiring old, inefficient appliances to save energy
- Recovering appliance foam
- Recycling durable goods

## 2017 RESULTS

In 2017, the RAD program's 42 partners collected and processed a total of 561,529 refrigerant-containing appliances from all 50 states and Puerto Rico, representing an estimated 4% of the total number disposed in the United States. This included:



## ENVIRONMENTAL BENEFITS

### Ozone Layer Protection

Avoided the release of **67** weighted tons of refrigerants and foam-blowing agents, which otherwise would have contributed to stratospheric ozone depletion.



### Durable Material Recycling

Recycled rather than landfilled the following durable materials:

- 69 million pounds of ferrous metals (e.g., steel)
- 4 million pounds of non-ferrous metals (e.g., copper)
- 17 million pounds of plastic
- 3 million pounds of glass



### Reduced Greenhouse Gas (GHG) Emissions

Achieved a reduction of **1.9 million** metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>eq), which is equal to the carbon emissions associated with:

- Generating enough electricity to power nearly **282,000** homes for one year
- Over **2.2 million** acres of forests in one year—larger than the state of Delaware
- Or consuming more than **211 million** gallons of gas



### Proper Handling of Hazardous Waste

Properly disposed of:

- 44,000 gallons of used oil
- 19,000 PCB-containing capacitors
- 20,000 mercury-containing components

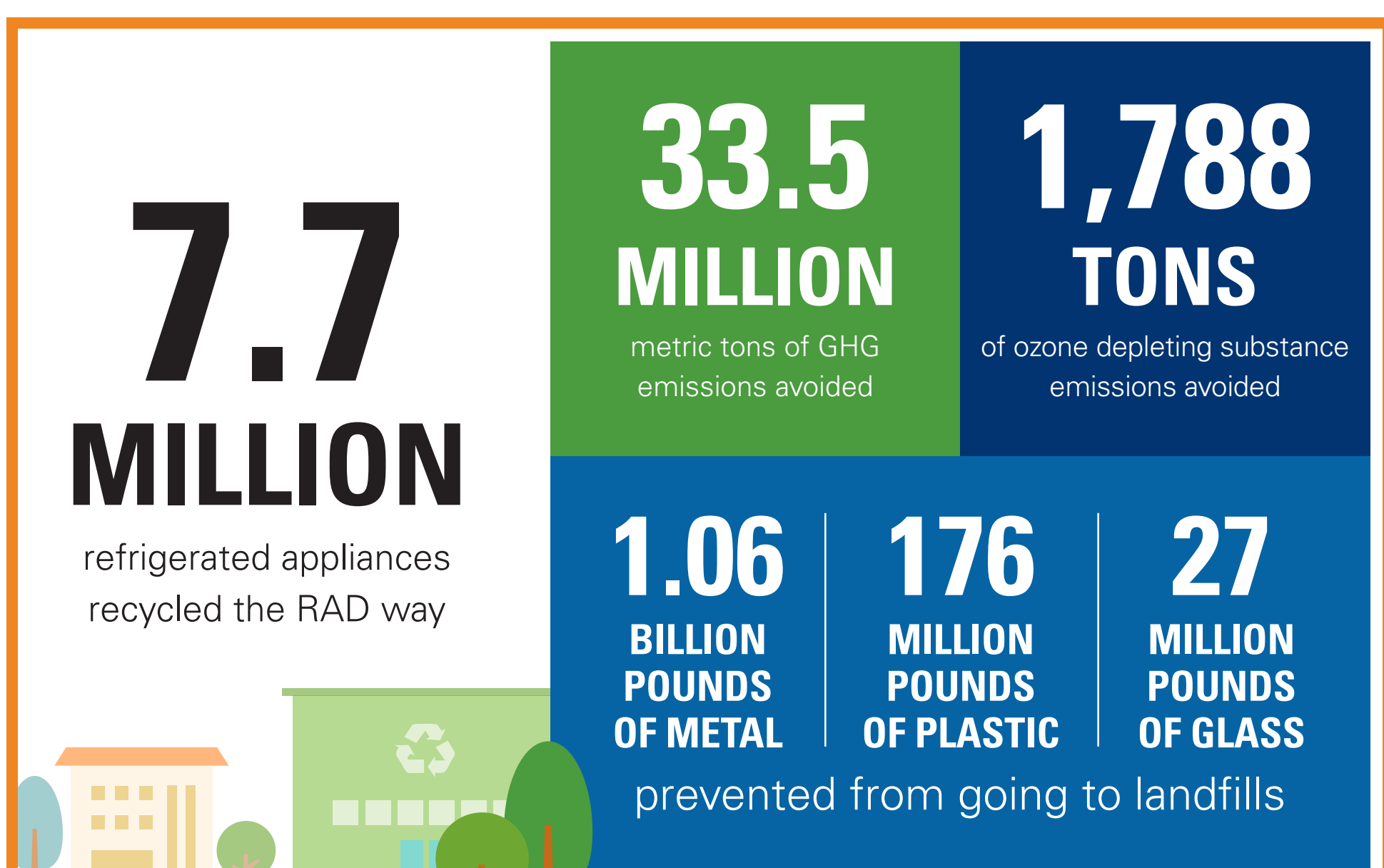


### Energy Savings

Reduced energy use by **1.5 billion** kilowatt hours (kWh), which translates to consumer savings of **\$202 million**.



## CUMULATIVE PROGRAM IMPACT



**RAD Partners and Affiliates:** AEP Indiana Michigan Power • AEP Ohio • Appliance Smart • Baltimore Gas & Electric (BGE) • Cape Light Compact • City of Burbank Water and Power (BWP) • City of Fort Collins Utilities • Commonwealth Edison • Consumers Energy • Dayton Power and Light (DP&L) • Delaware Department of Health and Social Services (DHSS) • Delmarva Power • Efficiency Smart • Eversource • Focus on Energy • GE Appliances • Georgia Power • The Home Depot • Idaho Power • Indianapolis Power & Light Company (IPL) • Kentucky Power • Liberty Utilities • Los Angeles Department of Water and Power (LADWP) • Louisville Gas & Electric (LG&E) and Kentucky Utilities (KU) • MidAmerican Energy Company • National Grid • New York State Electric and Gas Corporation (NYSEG)/Rochester Gas & Electric (RG&E) • NIPSCO • PECO Energy Company • Pepco • PNM • PPL Electric Utilities • Public Service Electric and Gas Company (PSEG) • Puget Sound Energy • Riverside Public Utilities • Sacramento Municipal Utility District (SMUD) • Sears • Southern Maryland Electric Cooperative (SMECO) • UGI Utilities • Unitil • Vectren Energy Delivery • West Virginia Department of Environmental Protection • Xcel Energy (CO, MN, NM)