

Welcome to the 2017 Fall RAD Partner Meeting!

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Agenda



- **RAD Updates**
 - RAD partner achievements
 - Recent RAD activities
- **Group Discussion**
 - Opportunities for growth
 - Community engagement opportunities

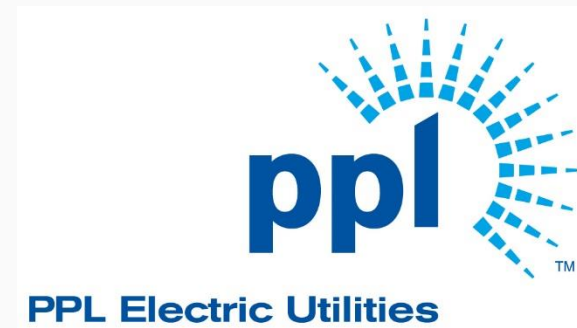


RAD Updates

RAD Partner Achievements



- In 2016 and 2017, RAD has welcomed **two new partners!**



RAD Partner Achievements



In 2016, RAD partners processed **553,000** units, including:



500,000
Refrigerators



45,000
Stand-Alone Freezers



6,500
Air Conditioning Units



1,500
Dehumidifiers

As a result, partners achieved the following impacts:

- 1.4 million MTCO₂eq of GHG emissions avoided
- 76 ODP-weighted MT of ODS emissions avoided
- 0.9 billion kWh saved and \$123 million in consumer savings

RAD Partner Achievements



Since program inception in 2006, RAD partners have processed **nearly 7 million** units, including:



6,382,700
Refrigerators



656,100
Stand-Alone Freezers



51,800
Air Conditioning Units



11,900
Dehumidifiers

As a result, partners achieved the following impacts:

- 31.6 million MTCO₂eq of GHG emissions avoided
- 1,721 ODP-weighted MT of ODS emissions avoided
- 23.8 billion kWh saved and \$2.9 billion in consumer savings

Recent RAD Activities



- RAD Attendance at Partner Events

- Recleim Grand Opening Event (Sept. 26)
- Eversource, National Grid, and Sears Dehumidifier Collection Event (June 4)
- BGE Air Conditioner and Dehumidifier Collection Event (May 20)

- Program Growth

- Recruiting new utility partners
- Conducting outreach to new partner categories

- Partner Spotlight

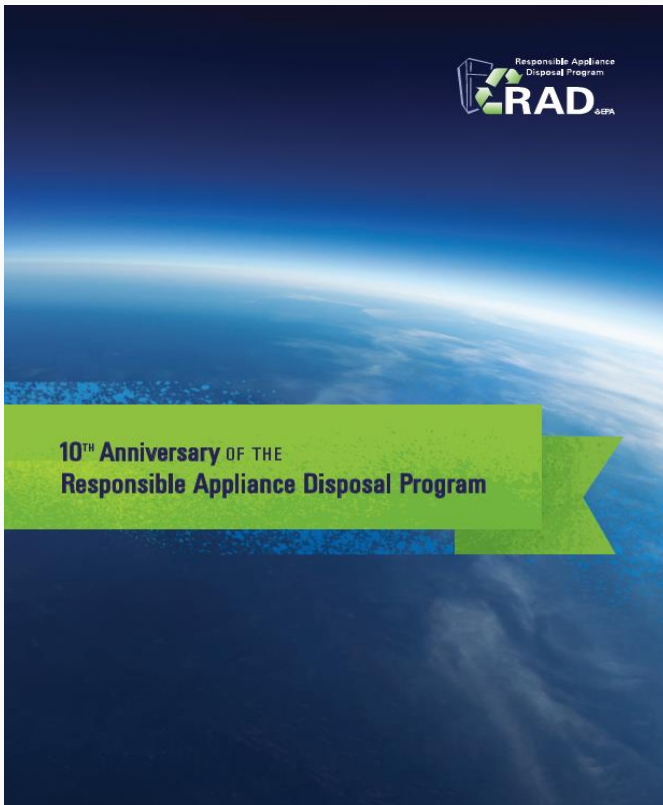
- New webpage



Recent RAD Activities



- 10th Anniversary RAD Report



A Decade of Protecting the Planet

- RAD partners recover appliance foam.**
While federal law does not require the recovery and proper treatment of the insulating foam that lines the walls of refrigerators and freezers, this foam contains substances that may, depending on the vintage of the unit, deplete the ozone layer. Ozone depletion causes increased amounts of UV radiation to reach the Earth's surface. Overexposure to UV radiation can cause a range of health effects, including skin cancer (melanoma and non-melanoma), premature aging of the skin and other skin problems, cataracts and other eye damage, and suppression of the immune system.
- RAD partners promote the permanent retirement of old, inefficient appliances to save energy.**
RAD's entry partners are committed to ensuring that old, inefficient appliances being disposed of by one household do not get moved by other households. This reduces indirect GHG emissions associated with the generation of electricity and saves consumer's money.

Energy Savings and Reduced GHG Emissions

Ozone Layer Protection

Durable Material Recycling

Handling of Hazardous Waste

- RAD partners comply with laws on the recovery of refrigerant, used oil, mercury, and PCBs.**
RAD partners ensure the proper, lawful handling of refrigerants and hazardous waste, including used oil, PCB containing capacitors, and mercury containing components. Improperly handled used oil can pollute drinking water. PCBs may cause cancer and liver damage as well as have negative impacts on the neurological development of children and the human reproductive, immune, and endocrine systems, and mercury exposure may cause hearing, headaches, respiratory failure, reproductive and developmental abnormalities, and potentially cancer.
- RAD partners promote recycling of all durable materials.**
Items that are not fit for resale are typically sent to scrap metal companies, where valuable metals are salvaged for sale on the recycling market. However, plastics, glass, and other durable materials are typically shredded and landfilled. RAD partners ensure that all materials are recycled properly, saving landfill space and energy.

10th Anniversary of the Responsible Appliance Disposal Program

Ozone Layer Protection

Older refrigerated appliances that were manufactured with ODS refrigerants and foam-blowing agents are being retired today and safely disposed of by RAD partners. Since program inception, the RAD program has avoided the release of:

1,721 Ozone Depletion Potential (ODP)-Weighted Tons of Refrigerants and Foam-Blowing Agents.

OZONE LEVELS

Image of the monthly-averaged total ozone over the Antarctic pole in September 1967 as the Montreal Protocol was being signed (left) and in September 2017 (right). The blue and purple colors represent areas with the least ozone, and the yellow and red colors represent areas with the most ozone.

Photo Credit: National Aeronautics and Space Administration (NASA) Ozone Hole Watch, September 2017.

Reduced GHG Emissions

31.6 million Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}q).

Since 2007, RAD partners achieved a reduction of 31.6 million MTCO_{2e}q, which is equal to the carbon emissions associated with...

- Generating enough electricity to power nearly **4.74 million** homes for one year...
- Over **37.2 million** acres of forests in one year—approximately the size of Florida...
- Or consuming more than **3.6 billion** gallons of gas.

10th Anniversary of the Responsible Appliance Disposal Program

Reminders for Group Discussion



- Share experiences with other RAD partners and recyclers in an active, facilitated dialogue
- Be willing to learn from each other; keep an open mind
- Please identify yourself when speaking

Opportunities for New Partner Categories



Colleges and Universities

Property Management Companies

Remodeling Companies

State and Local Governments

- The goal of the RAD program is to increase responsible appliance recycling and build the partner base, and there is significant interest in the RAD program from non-traditional partners.
- Do you see any opportunities for RAD to expand partner categories to include these or others?
- Do you see any opportunities to modify the RAD program to accommodate any new partner categories?
- Would current RAD infrastructure be compatible with these or other partner categories?

Opportunities for New Partner Categories



Colleges and Universities

Property Management Companies

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State and Local Governments

- Are there existing partnerships or relationships between current partners and the potential new partner categories?
- Are there opportunities to develop new partnerships or relationships?
- How can the RAD team encourage or assist in developing partnerships?
- Are there any opportunities to conduct a RAD-like pilot program with one of these other partner categories?

Community Engagement Opportunities



- Are there opportunities to raise consumer/customer awareness about the RAD program and its benefits?
- How can EPA help your organization disseminate RAD informational/promotional materials to customers, consumers, and appliance owners?
- Are there any opportunities for RAD to assist in a campaign to increase consumer awareness?
 - If EPA developed draft materials such as utility bill inserts and point-of-sale brochures or signage for appliance retailers, would they be of value to partners?
 - Are there other marketing materials that would be of value to partners?

Thank you for participating!



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