

## 6. Other Sectors

### Who Reported?

Eight entities from other sectors (including government, commercial, and residential entities) reported for 1998 (Figure 11). Government organizations included two units of local government (City of Fairfield Wastewater Division in Ohio and Burlington County Board of Chosen Freeholders in New Jersey) and the U.S. Department of Energy. Commercial-sector reporters included Abe Krasne Home Furnishings, Inc., of Fremont, Nebraska, a manufacturer and retailer of furniture and home furnishings; Air Exchange, Inc., an engineering services corporation in New Jersey that provides environmental consulting services in anticipation of possible future early action credit programs; the Minnesota Resource Recovery Association, a recycling membership organization; and Pan American Hospital, a health services provider from Miami, Florida. One household reported, providing the sole residential submission for 1998. Four of these entities (U.S. Department of Energy, Abe Krasne Home Furnishings, Inc., Air Exchange, Inc., and Pan American Hospital) reported for the first time in 1998.

### What Was Reported?

More than 65 percent of the projects reported for 1998 by organizations in other sectors involved various end-use activities, consisting primarily of basic efficiency improvements, such as equipment upgrades, lighting replacement or better maintenance programs, and fuel switching (Table 13). Together, these projects avoided a reported 1 million metric tons of carbon dioxide emissions, or about 42 percent of total carbon dioxide equivalent of the reductions for reporters in other sectors.

The remaining (non-end-use) projects included some of the larger reductions for reporters in other sectors. Several recycling efforts and an incineration project resulted in emission reductions of about 1.1 million metric tons carbon dioxide equivalent. A landfill gas flaring project avoided emissions of 247,119 metric tons carbon dioxide equivalent (including carbon dioxide emissions from flared landfill gas). Other types of projects included mass transit commuting, methane recovery from wastewater treatment plant digesters, and photovoltaic power generation.

**Figure 11. Number of Entities from Other Sectors Submitting Reports, 1994-1998**



Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

**Table 13. Number of Projects and Emission Reductions Reported by Other Sector Reporters  
by Project Type, Data Year 1998**  
(Metric Tons Carbon Dioxide Equivalent)

Project Type	Number of Projects Reported	Emission Reductions Reported		
		Carbon Dioxide	Methane	Total
Increase in Low-Emitting Capacity . . . . .	1	37	—	<b>37</b>
Equipment and Appliances Improvement or Replacement . . . . .	4	42	—	<b>42</b>
Lighting and Lighting Control . . . . .	2	38	—	<b>38</b>
Heating, Ventilation, and Air Conditioning . . . . .	4	84	—	<b>84</b>
Motor and Motor Drive . . . . .	4	30	—	<b>30</b>
Fuel Switching . . . . .	1	993,000	—	<b>993,000</b>
Industrial Power Systems . . . . .	1	13	—	<b>13</b>
Demand Modification: Mass Transit . . . . .	1	4	—	<b>4</b>
Landfills: Flaring Landfill Gas <sup>a</sup> . . . . .	1	-37,237	284,357	<b>247,119</b>
Wastewater Treatment: Biogas Recovery for Energy Use. . . . .	1	631	—	<b>631</b>
Materials Recycling and Reuse . . . . .	5	157,240	16,467	<b>173,707</b>
General Waste Treatment and Disposal: Methane Avoidance . . . . .	1	—	955,731	<b>955,731</b>
<b>Total . . . . .</b>	<b>26</b>	<b>1,113,861</b>	<b>1,256,555</b>	<b>2,370,435</b>

<sup>a</sup>Negative emission reduction reflects increases in carbon dioxide emissions produced by methane flaring.  
Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

## Highlights from Other Sectors

### ***Substantial Carbon Dioxide Savings Through End-Use Effort by Air Exchange, Inc.***

Air Exchange, Inc., a new reporter, reported one of the largest 1998 emission reductions for entities from other sectors with a reduction of 993,000 metric tons of carbon dioxide from a nonutility boiler shutdown/upgrade project. Older, inefficient boilers firing residual fuel were shut down through plant closings or replaced by more efficient natural-gas-fired boilers, resulting in carbon dioxide savings of more than 4 million metric tons since 1995. The project was implemented to achieve compliance with NO<sub>x</sub> Reasonably Achievable Control Technologies standards.

### ***Wide Range of Efficiency Measures Implemented To Reduce Emissions***

The wide variety of reporting entities and types of end-use efficiency projects reported to the Voluntary Reporting Program for 1998 was reflected in the following reports:

- **Abe Krasne Home Furnishings, Inc.** Abe Krasne reported avoiding emissions of about 38 metric tons of carbon dioxide through a fluorescent bulb fixture replacement project.
- **City of Fairfield Wastewater Division.** The City of Fairfield, Ohio, reported on four motor replacement projects for its sewage aeration blowers and pumps that reduced carbon dioxide emissions by more than 30 metric tons.
- **Pan American Hospital.** Pan American Hospital in Miami, Florida, implemented five end-use projects, including industrial boiler and heating, ventilation, and air conditioning system maintenance programs and steam system/chiller efficiency upgrades. The efforts avoided more than 138 metric tons of carbon dioxide emissions.

### ***Methane Reductions Reported by Government Entities***

Two government entities reported methane emission reductions through flaring and recovery:

- The Burlington County Board of Chosen Freeholders reported on a 3-year-old landfill gas flaring

project, claiming reductions of 247,120 metric tons carbon dioxide equivalent for 1998. Most of the gas (98.6 percent) came from an operating landfill at the Burlington County Resource Recovery Complex.

- The City of Fairfield, Ohio, used methane produced from anaerobic digesters at its wastewater treatment plant in place of distillate fuel, resulting in reported reductions of almost 631 metric tons of carbon dioxide emissions.

### ***Photovoltaic Systems Project Reported by U.S. Department of Energy***

The U.S. Department of Energy reported the installation of photovoltaic cell systems at its day care centers in the Washington, DC, metropolitan area. The solar cells generate 38,000 kilowatthours, eliminating about 37 metric tons of carbon dioxide emissions, each year.

### ***Emissions of Landfill Gas Prevented by Recycling and Incineration Efforts***

The Burlington County Regional Recycling Program provides curbside pickup of paper, cardboard, glass, plastic containers, and metal cans from residences throughout the county. The program reduces the amount of waste that goes into the county landfill, reducing emissions of landfill gas (which is about 50 percent methane) that presumably would have escaped into the atmosphere had the effort not been undertaken. The project's reported reductions of methane and carbon dioxide totaled more than 48,254 metric tons carbon dioxide equivalent for 1998. The recycling effort also results in a corresponding savings in tipping fees to municipalities. Burlington County saved over \$2 million in 1998 alone.

Minnesota Resource Recovery Association (MRRA) reported four projects involving paper recycling and book reuse, which they claim have avoided emissions of nearly 125,454 metric tons carbon dioxide equivalent. MRRA's fifth project involved a mixed solid waste incineration effort that burned nearly 403,000 metric tons of waste, resulting in an estimated landfill methane reduction of 955,731 metric tons carbon dioxide equivalent—the largest single emission reduction for other sector reporters.