

Executive Summary

The Voluntary Reporting of Greenhouse Gases Program, required by Section 1605(b) of the Energy Policy Act of 1992, records the results of voluntary measures to reduce, avoid, or sequester greenhouse gas emissions. A total of 201 U.S. companies and other organizations reported to the Energy Information Administration (EIA) that, during 1999, they had undertaken 1,715 projects, which achieved greenhouse gas emission reductions and carbon sequestration equivalent to 226 million metric tons carbon dioxide, or about 3.4 percent of total 1999 U.S. greenhouse gas emissions. The emission reductions reported usually were measured by comparing an estimate of actual emissions with an estimate of what emissions would have been had the project not been implemented.

Since 1994, the annual number of projects reported to the Voluntary Reporting Program has increased by 166 percent, and the quantity of emission reductions reported has more than tripled (Table ES1). Although the number of entities reporting declined slightly from 207 in 1998 to 201 in 1999, it should be noted that the 1998 data have been revised upward to include reports that were submitted after the 1998 filing deadline, and it is expected that the 1999 data will also be revised upward in next year's report with the inclusion of late 1999 reports. Eighty-two of the organizations reporting for 1999 provided estimates of emissions and/or emission reductions for the entire organization. Sixty-five reporters

recorded commitments to take action to reduce emissions in future years, mostly during the 2000 to 2005 time frame.

Of the 82 organizations reporting at the entity level, 78 estimated their 1999 emissions, which totaled 1.5 billion metric tons carbon dioxide equivalent, equal to about 22 percent of total U.S. greenhouse gas emissions in 1999. These 78 entity-level reporters also estimated corporate-wide emission reductions totaling 181.6 million metric tons carbon dioxide equivalent, a reduction of 12 percent relative to total greenhouse gas emissions reported by all the organizations reporting at the entity level for 1999.

The Voluntary Reporting of Greenhouse Gases Program is used as a registry by several U.S. Government-sponsored voluntary programs to limit greenhouse gas emissions.¹ Nearly half (49.8 percent) of the reporters to the Voluntary Reporting Program in 1999 were electric utilities, most of which were participants in the U.S. Department of Energy (DOE) Climate Challenge program. However, the proportion of electric utilities among the reporters has decreased steadily since the first (1994) reporting cycle—when 88 percent of the reporters were electric utilities—as a more varied set of participants have begun reporting. Participants from outside the electric power sector, representing a diverse set of industries,² now make up 50.2 percent of all the

Table ES1. Reporting Indicators for the Voluntary Reporting of Greenhouse Gases Program, Data Years 1994-1999

Indicator	1994	1995	1996	1997	1998 ^(R)	1999
Number of Entities Reporting	108	142	150	162	207	201
Number of Projects Reported	645	967	1,040	1,288	1,557	1,715
Number of Entity-Level (Organization-Wide) Reports Received	40	51	56	60	76	82
Project-Level Reductions Reported (Million Metric Tons Carbon Dioxide Equivalent)	74	146	155	149	219	226

(R) = revised.

Note: 1998 data have been revised upward to include 1998 reports that were submitted after the filing deadline. It is expected that the 1999 data will also be revised upward in next year's report with the inclusion of late 1999 reports.

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

¹These programs include the U.S. Department of Energy (DOE) Climate Challenge program for electric utilities and the U.S. Environmental Protection Agency (EPA) Climate Wise program for manufacturers, Landfill Methane Outreach Program, Coalbed Methane Outreach Program, and Green Lights program, as well as the U.S. Initiative on Joint Implementation.

²Reporters outside the electric power industry include manufacturers such as General Motors, IBM, Dow, Johnson & Johnson; facilities such as Alcan's Sebree aluminum plant, Motorola's Austin, TX, integrated circuit fabrication plant, and three California Portland Cement Company plants; 47 operators and developers of landfill methane recovery projects; a trade association (Integrated Waste Services Association); and private voluntary organizations, such as American Forests and World Parks Endowment.

organizations reporting to the program. Each reporting cycle also normally sees an influx of a first-time reporters new to the program.³

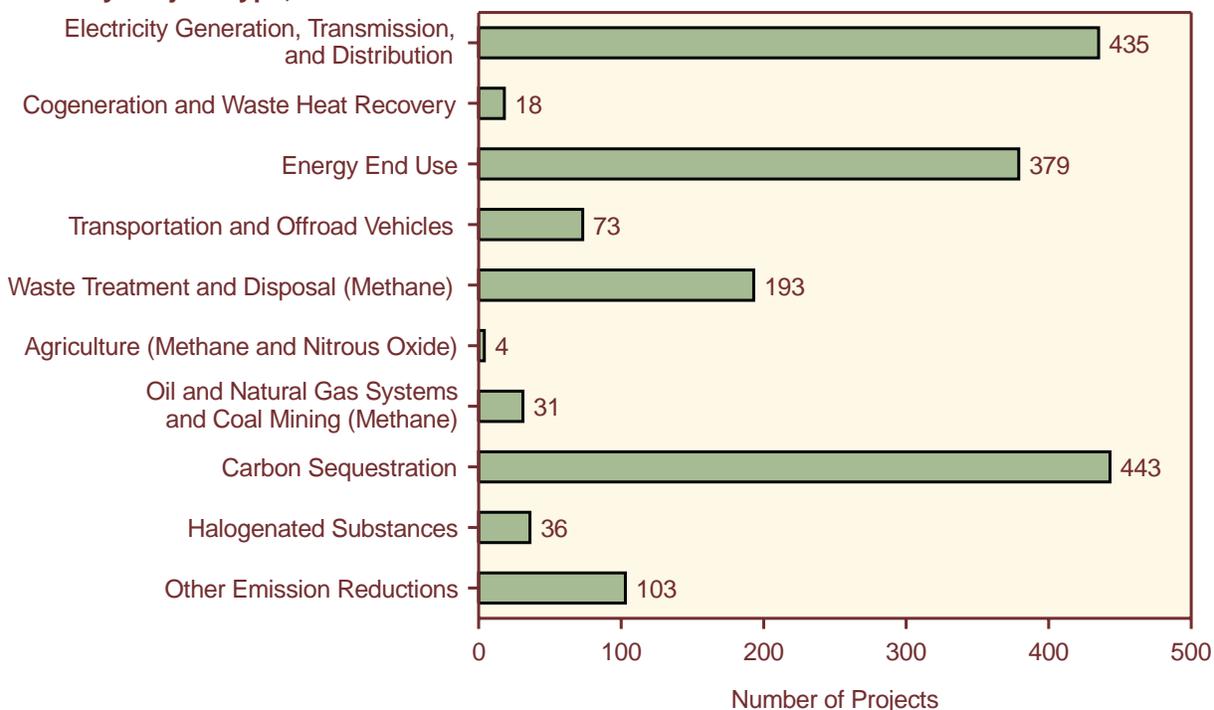
Electric power sector reporters (including independent power producers) accounted for 1,198 (70 percent) of the projects reported. Also reporting were industrial concerns (168 projects), agriculture and forestry organizations (147 projects), and alternative energy providers (175 projects). Organizations in other sectors (government, commercial, and residential) submitted reports on 27 projects.

Most of the projects reported for 1999 affected energy supply or use in some way. Some 435 of the projects were related to the generation, transmission, or distribution of electricity, almost all of which were reported by electric power sector reporters (Figure ES1). Another 379 were related to energy end use, 18 were cogeneration projects, and 73 were transportation projects. Another 224 projects reduced emissions of methane from waste disposal facilities (193 projects) and from oil and natural gas systems and coal mines (31 projects), almost all of which included the displacement of fossil fuels through the use of methane as a fuel. Other projects included the

reuse of fly ash in concrete (41 projects) and materials recycling (35 projects), which reduce emissions at least in part by reducing energy consumption. The largest reductions were reported for projects that improved the performance of nuclear power plants. The non-energy-related projects reported fell into two major categories: sequestration of carbon, usually in forests (443 projects), and the recycling, reuse or destruction of halogenated substances such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (36 projects).

Public interest in the Voluntary Reporting Program has continued to increase, in part because of growing awareness of climate change issues and, in part, because of public interest in the concept of credit for early reductions. In October 1997, the White House announced that it favored offering “credit for early reductions” as a means to limit future U.S. greenhouse gas emissions. Generally, a credit for early reduction program would offer regulatory credit—in the form of “carbon allowances” against a future cap on greenhouse gas emissions—for organizations that take steps to reduce their emissions now. Neither “credits” nor “reductions” were defined, however, and the exact nature of such a program is a subject of ongoing debate among

Figure ES1. Number of Projects Reported to the Voluntary Reporting of Greenhouse Gases Program by Project Type, Data Year 1999



Note: The sum of projects in each project category exceeds the total number of projects reported, because more than one project type may be assigned to a single project.

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

³New reporters for 1999 that are outside the electric power industry include AT&T, Clairrol, Pharmacia & Upjohn, Republic Metals, Rolls-Royce Corporation, Sunoco, and the Pacific Forest Trust.

policymakers, interest groups, and private organizations. Various bills have been introduced in Congress to address the issue, but no legislation has been enacted.

By creating a database of real-world emission reduction actions and actors, the data reported to the Voluntary

Reporting Program can be used to gain insight into the incentive effects and beneficiaries of various credit for early action proposals. The database also provides a mechanism for identifying some of the issues that would have to be resolved in developing an accounting system for an effective credit program.