



Selected Inventory of EPA/DOE Voluntary Sector-Based Programs

October 1999

| SECTOR | AGENCY/ PROGRAM OFFICE/ PROGRAM NAME | HIGHLIGHTS | TARGET GASES/ POLLUTANT | KEY SUBSECTORS | CONTACT INFORMATION |
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| Agriculture | EPA/DOE/USDA AgSTAR | Encourages the use of methane recovery technologies at confined animal feeding operations that manage manure as liquids or slurries to reduce methane concentrations while achieving other environmental benefits including odor control and nutrient management opportunities. Partners agree to survey facilities and install methane recovery systems on animal waste impoundments where cost effective and/or environmentally beneficial, including benefits such as odor control and water quality. | CH ₄ | | http://yosemite.epa.gov/methane/home.nsf/pages/agstar |
| Agriculture | EPA/USDA Ruminant Livestock Methane Program | Reduces emissions through cost-effective methods in improved grazing management, strategic dietary supplementation, use of production enhancing technologies, improved animal health, and improved genetics and reproduction. | CH ₄ | Agriculture | http://www.epa.gov/ruminant/ |
| Buildings/ Commercial | EPA ENERGY STAR® Buildings SM /Green Lights Partnership | Focuses on profitable energy efficiency opportunities available to most commercial and industrial buildings. Participants are offered a proven energy strategy and guidance to help them reduce their amount of energy used by approximately 30 percent while increasing the comfort and quality of their facilities. | CO ₂ | Commercial and Industrial | http://www.epa.gov/energystar |
| Buildings/ Commercial | EPA ENERGY STAR Buildings: Buildings Label | Provides an online benchmarking tool that evaluates building energy performance. Helps companies establish a baseline for their building's energy performance to determine how energy efficient their building is and to set targets for increased efficiency; helps them use their building's energy performance results to influence business transactions and gain recognition for their successes. | CO ₂ | Commercial | http://www.lbselbse.org/intro.html |
| Buildings/ Commercial | EPA ENERGY STAR Buildings: Small Business | Works with small businesses and nonprofit organizations that have a facility, or facilities, of 100,000 square feet or less and is not governmental, or in the energy equipment or service industry. Helps these businesses identify opportunities to reduce energy costs by upgrading to more efficient equipment. | CO ₂ | Commercial | http://yosemite.epa.gov/appd/essbhp.nsf |
| Buildings/ Commercial | EPA ENERGY STAR Buildings: Congregations | Provides technical support and guidance to congregations that are 100,000 square feet or less. Helps congregations upgrade to more efficient lighting, space conditioning, and office equipment. | CO ₂ | Commercial | http://yosemite.epa.gov/appd/essbhp.nsf/congregations |
| Buildings/ Commercial | EPA Water Alliances for Voluntary Efficiency (WAVE) | Promotes efficient water use in hotels and motels, schools, universities, and office buildings. The program provides participants with water and energy saving ideas that will result in a profit. In particular, participating hotels agree to reduce water and energy consumption and provide information about water efficiency to their customers. To date, 773 hotels participate in the program. | CO ₂ | Hospitality, Schools, Universities | http://www.epa.gov/owm/faqw.htm |
| Buildings/ Commercial | DOE Rebuild America | A network of community partnerships-made up of local governments and businesses-that save money by saving energy. These voluntary partnerships choose the best ways to improve the energy efficiency of their buildings. Rebuild America supports them with business and technical tools and customized assistance. The program projects energy savings of 100 trillion Btu annually by the year 2000. | CO ₂ | Schools, Public Housing, Universities | http://www.eren.doe.gov/buildings/rebuild |

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| Buildings/ Commercial | DOE Model Building Codes Program | Provides technical and financial assistance to states, designers and builders to voluntarily develop and implement upgraded building codes and include measures that are technically feasible and cost-effective, and promulgates federal building energy efficiency standards. | CO ₂ | Commercial | http://www.eren.doe.gov/buildings |
| Buildings/ Commercial | DOE Million Solar Roofs | Works with at least 25 partnerships—utilities, builders, federal and state agencies, cities, and financial institutions across the nation—to develop action plans to install one million solar energy systems (solar photovoltaic and solar water heating) on the roofs of buildings and homes across the United States by the year 2010. | CO ₂ | Commercial, residential, industrial | http://www.MillionSolarRoofs.org |
| Buildings/ Commercial | DOE EnergySmart Schools | EnergySmart Schools is a joint partnership between DOE and several private organizations. The partnership's goals are: to reduce energy consumption and costs, and increase use of clean energy technologies in K-12 schools nationwide; to help schools reinvest their savings from energy improvements; to improve the learning environment of schools through daylighting, better temperature control, better air quality and other elements related to buildings and bus fleets; and to increase student, teacher, and community awareness of energy and related issues including financial management, air quality, climate change, and new technologies. | CO ₂ | Schools | http://www.eren.doe.gov/energysmartschools/ |
| Buildings/ Residential | EPA ENERGY STAR Homes: New Homes | Partners construct homes that are 30 percent more energy efficient than the Model Energy Code. Program Allies promote ENERGY STAR to their customers, consumers, and builders because it helps them achieve their business objectives. Lender Partners offer preferred terms on mortgages for purchasers of ENERGY STAR Homes. Builders determine what energy efficiency features they want to use to reach the 30 percent efficiency threshold. A typical ENERGY STAR Homes features advanced and increased insulation, tight construction, advanced duct sealing, high-performance windows, high-efficiency heating and cooling systems, and often high-efficiency appliances and lighting. There are currently more than 1,200 ENERGY STAR Builder Partners and over 700 ENERGY STAR Homes Allies. | CO ₂ | Residential | http://energystar.gov/homes |
| Buildings/ Residential | EPA ENERGY STAR Homes: Home Improvement | Encourages and helps homeowners make cost effective energy efficiency improvements to their homes. EPA is currently developing a range of tools to help identify opportunities, including the home energy rating system (HERS) to help homeowners assess applicable upgrade options. | CO ₂ | Residential | http://energystar.gov/homes |
| Buildings/ Residential | DOE Building America | Industry cost-shared partnership program that applies systems engineering research approaches to accelerate the development and adoption of building processes and technical systems innovations. The program unites segments of the building industry that traditionally work independently of one another, forming teams of architects, engineers, builders, equipment manufacturers, material suppliers, community planners, mortgage lenders, and contractor trades. Currently, there are four teams comprised of more than 50 different companies: | CO ₂ | Residential | http://www.eren.doe.gov/buildings/building_america |

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| | | <ul style="list-style-type: none"> • Building Science Consortium works in 12 states to design cost-effective, energy-efficient single-family homes for each of the four U.S. climate types. Building Science builder partners have adopted Building America concepts to construct approximately 2,500 homes in 17 communities, more than 250 of which have been completed. Re-engineering and design is under way in 8 other locations. • Consortium for Advanced Residential Buildings (CARB) has completed four prototypes that use significantly fewer resources to build while achieving energy savings of 20 to 35 percent over their accompanying control houses. • Hickory Consortium works with multifamily housing including factory-built modular housing. Their work has demonstrated energy savings of 50 percent over the Massachusetts Energy Code. • Integrated Building and Construction Solutions (IBACOS) has conducted successful design and construction partnerships in 10 states to deliver energy-efficient, high quality, and affordable single-family homes. Past performance achievements include 30 to 60 percent utility savings to the homeowner annually with no additional cost to the builder. | | | |
| Buildings/ Residential | DOE Weatherization Assistance Program (WAP) | Provides funding to states, which in turn subgrant these funds to local agencies to install energy-efficient measures in the households of low-income, elderly, or disabled occupants. WAP is implemented in all 50 states and funds projects in more than 200,000 residences every year. | CO ₂ | Residential | http://www.eren.doe.gov/buildings/weatherization_assistance/ |
| Buildings/ Cross-sectoral | DOE Standards and Guidelines Program (BSGP) | Provides testing, labeling, and mandatory energy conservation standards for major household appliances, commercial equipment, lamps, transformers, motors, and electric motors. Interaction among manufacturers, energy/environmental advocates, states, utilities, retailers, and consumers provide a balanced discussion of potential standards as well as critical information to conduct analyses. | CO ₂ | Buildings: Manufacturing, Utility, Commercial, and Residential | http://www.energycodes.org |
| Buildings/ Cross-sectoral | EPA/DOE ENERGY STAR Products: Labeling | EPA and DOE have developed voluntary energy efficiency specifications for products such as office equipment, heating and cooling equipment, insulation, residential appliances, residential lighting, exit signs, televisions, and VCRs. Manufacturers and retailers of these products may voluntarily join the ENERGY STAR Labeling Programs and place the ENERGY STAR label on qualified products. In addition, through outreach and educational efforts, both agencies are working to publicize and promote the environmental and economic benefits of energy efficiency. More than 1,200 manufacturers participate, offering over 29 different types of products. In the last year, consumers and businesses purchasing ENERGY STAR EPA/DOE-labeled products prevented emissions of more than 1.8 million metric tons of carbon equivalent (MMTCE) and saved more than \$400 million on energy bills due to ENERGY STAR equipment. | CO ₂ | Building, Manufacturing, Utility, Residential | EPA: http://www.epa.gov/appdstar/estar/products.html DOE: http://www.energystar.gov/products |

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| Buildings/ Cross- sectoral | EPA Urban Heat Island Reduction Initiative | Works with communities across the United States to encourage the widespread use of reflective surfaces on roofs and pavements, and urban forestry to reduce cooling energy demand in buildings and to lower ambient air temperature. Together, these strategies work to reduce carbon dioxide (CO ₂) emissions and ground level ozone. The partnership conducts air quality modeling at pilot cities to identify the potential benefits of urban heat island mitigation strategies on a designated area's energy use and air pollution. | CO ₂ , Ozone | Residential and Commercial | http://www.epa.gov/appdstar/purchasing/programs.htm |
| Industry | EPA CHP Program | Provides public recognition for efficient energy conversion processes and encourages the expansion of Combined Heat and Power (CHP). Supports regulatory clarification for environmental permitting of CHP units. Works in cooperation with DOE's CHP Challenge program to encourage electric restructuring activities that do not limit the growth of CHP. | CO ₂ | All Industries, District Energy, Commercial and Residential Buildings | See DOE's CHP Challenge (listed below) |
| Industry | EPA Industrial Partnerships | These partnerships, administered under the ENERGY STAR program office, identify and evaluate specific technically and economically feasible greenhouse gas emissions reduction opportunities, and associated reductions in conventional and hazardous air pollutants. Focus is on sector-specific and cross-sector (ex: combined heat and power) understanding of baselines, reduction potentials, regulatory barriers, and implementation of barrier removal strategies. | CO ₂ and other greenhouse gases (GHGs) | Chemicals, Pulp and Paper, Iron and Steel | http://www.epa.gov/cpd.html |
| Industry | EPA Climate Wise | Works with industrial-sector companies to turn energy efficiency and pollution prevention into a corporate asset. Industry partners develop a comprehensive portfolio of energy efficiency and greenhouse gas reduction actions that protect the environment, save money, and improve productivity. There are currently more than 525 company partners. Partners have pledged to reduce emissions by 5MMTCE with savings of more than \$6 million. | CO ₂ and other GHGs | Cement, Steel, Pharmaceutical, Food Processing, Petroleum, Chemical, Pulp and Paper | http://www.epa.gov/climatewise |
| Industry | DOE Industries of the Future | Creates partnerships between industry, government, and supporting laboratories and institutions to accelerate technology research, development, and deployment. Industry and government collaboratively develop a vision for the future for nine specific energy-intensive industries, and specific technology roadmaps that detail how to achieve the vision. | CO ₂ and other GHGs | Agriculture, Aluminum, Chemicals, Glass, Metalcasting, Mining, Petroleum, Pulp and Paper, Steel | http://www.oit.doe.gov/industries.shtml |
| Industry | DOE NICE3 (National Industrial Competitiveness through Energy, Environment, and Economics) | Facilitates energy efficiency, clean production, and economic competitiveness by providing funding to state/industry partnerships that reduce greenhouse gas emissions. Examples of areas where NICE3 industrial process system improvements were made include: paint wastewater recovery, spent methanol recovery, ultrasonic tank cleaning, and closed loop hydrochloric acid recovery. Projected 109 trillion Btu annual energy savings by 2010. | CO ₂ and other GHGs | All Industries | http://www.oit.doe.gov/nice3 |
| Industry | DOE Industrial Assessment Center (IAC) Program | Sponsors no-cost energy efficiency assessments and waste reduction assessments for small- and medium-sized manufacturers. Implementation of IAC recommendations has resulted in savings of 230 trillion Btu and \$850 million at directly audited plants since 1981. The major areas for which IACs make recommendations are boiler, steam systems, process heating, waste heat and recovery, compressed air systems, and process cooling. | CO ₂ | All Industries | http://www.oit.doe.gov/iac |

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| Industry | DOE Steam Challenge | Promotes and encourages industrial energy consumers to retrofit their steam plants wherever profitable to improve the efficiency of their plants. The program provides useful information and tools to best assist partners in increasing or maintaining the efficiency of their steam system. Annual savings estimates for industry are \$150 million. | CO ₂ | All Industries | http://www.oit.doe.gov/steam |
| Industry | DOE Motor Challenge | Provides tools and technical assistance to industrial plants to upgrade motor systems wherever profitable. Primary entities served by the program are industrial end-users/manufacturers, water and wastewater facilities. Industry partnerships currently being pursued include: developing specific guides for pumps, fans/blowers, and air compressors, developing plant application energy management guidelines, and supporting technology-specific, design-decision tools that will provide reliable cost and performance data for end-users. | CO ₂ | All Industries | http://www.motor.doe.gov |
| Industry | DOE Compressed Air Challenge | Helps corporations and their plant managers improve efficiency and performance of industrial compressed air systems with the goal of reducing energy needs and costs. The program is developing information and training tools for plant operators to best utilize existing and currently available technologies. | CO ₂ | All Industries | http://www.knowpressure.org/ |
| Industry | DOE CHP Challenge | Promotes doubling U.S. CHP capacity by 2010 by fostering technology development and encouraging electric utility restructuring measures that remove regulatory barriers to CHP. Work with EPA's CHP program to identify regulatory issues associated with CHP. | CO ₂ | All Industries, District Energy, Commercial & Residential Buildings | http://www.oit.doe.gov/chpchallenge |
| Industry | EPA Natural Gas Star | Encourages oil and natural gas companies to adopt cost-effective best management practices that reduce leaks and losses of methane. | CH ₄ | Oil and Gas Production, Transmission, and Distribution | http://www.epa.gov/gasstar |
| Industry | EPA Coal bed Methane Outreach | Identifies and removes obstacles and promotes innovative technology to increase investment in coal bed methane recovery projects. | CH ₄ | Mining | http://yosemite.epa.gov/methane/cmophome.nsf |
| Industry | EPA Landfill Methane Outreach Program | Provides information and project facilitation to public and individual organizations. Works to overcome the barriers to environmentally and economically beneficial landfill gas energy recovery. The program has 125 industry Allies, 39 community partners, 29 state Allies in 21 states, and 34 energy Allies as of October of 1999. | CH ₄ | Utility, Solid Waste | http://www.epa.gov/lmop |
| Industry | EPA SF₆ Emission Reduction Partnership for Magnesium Casters | The partnership between EPA and 10 magnesium manufacturers is helping reduce emissions of greenhouse gases through cost-effective measures. In the voluntary program, industry and EPA work together to identify pollution prevention-oriented reduction opportunities for control of PFC emissions. | SF ₆ | Magnesium Casting | http://www.epa.gov/appdstar/programs.html |
| Industry | EPA HFC-23 Emission Reduction Partnership for the Chemical Industry | Reduces emissions with methods such as process optimization and HFC-23 control systems. All U.S. manufacturers participate. | HFC-23 | Chemical | http://www.epa.gov/appdstar/programs.html |
| Industry | EPA HFC/PFC/SF₆ Programs, PFC Emission Reduction Partnership for the Semiconductor Industry | Reduces emissions of perfluorocompounds (PFCs) and hydrofluorocarbons (HFCs) through manufacturing process optimization, alternative chemistries, capture/recycling, and abatement. | PFCs | Semiconductor | http://www.epa.gov/appdstar/programs.html |

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| Industry | EPA HFC/PFC/SF ₆ Programs, SF ₆ Emission Reduction Partnership for Electrical Power Systems | Reduces emissions from circuit breakers, gas-insulated substations, and other electrical equipment using SF ₆ through improved work practices, equipment maintenance, and eventual retirement of outdated tools. Currently, 57 utility partners participate. | SF ₆ | Utility | http://www.epa.gov/appdstar/programs.html |
| Industry | EPA HFC/PFC/SF ₆ Programs, Voluntary Aluminum Industry Partnership | Reduces perfluorocarbon gas emissions through a mix of management and technological changes. To date, 11 of the 13 primary aluminum producers have joined VAIP, representing 94 percent of the U.S. primary aluminum production capacity. | PFCs | Aluminum | http://www.epa.gov/vaip |
| Industry | EPA Environmental Technology Verification (ETV) Program | ETV was created to accelerate substantially the entrance of new environmental technologies into the domestic and international marketplace. ETV verifies commercial-ready, private sector technologies through 12 pilots, including the GHG technology verification pilot. The pilot provides independent verification of GHG mitigation and monitoring technologies to vendors and others that need reliable verification data. The pilot is investigating technologies that: reduce methane emissions in the oil and natural gas industries, reduce perfluorocompound emissions (PFCs) used in the microelectronics and aluminum industries, recover sulfur hexafluoride, monitor GHG emissions, and further the use of distributed power. | CH ₄ , PFCs, SF ₆ | Microelectronics, aluminum, oil/natural gas, coatings, metal finishing, recycling, waste management | http://www.epa.gov/etv/ |
| Industry | EPA Design for the Environment | Turns pollution prevention into both a corporate and environmental asset by helping businesses incorporate environmental considerations into the design and redesign of products, processes, and technical management systems. | Multi-media | Insurance, Dry Cleaning, Printing, Printed Wiring Board, Aerospace, Metal Finishing | http://www.epa.gov/opptintr/dfe |
| Industry | EPA Sustainable Industries | Works with selected industries to devise new and better ways to reduce pollution and conserve resources. The industries use a systematic, "life-span" process for industrial sector-based programs. The program provides incentives and removes barriers to better environmental performance using a sector-based approach. Pilot projects test innovative ideas that lay groundwork for program change. | Multi-media | Food Processing, Batch Chemical, Travel/tourism | http://www.epa.gov/sustainableindustry/sector.htm |
| Industry | EPA Green Chemistry | Promotes the development of products and processes that reduce or eliminate the use or generation of toxic substances associated with the design, manufacture, and use of chemicals. The program recognizes and promotes fundamental breakthroughs in chemistry that accomplish pollution prevention in a cost-effective manner. | Multi-media | Chemicals | http://www.epa.gov/opptintr/greenchemistry |
| Industry | EPA Project XL | Project XL, which stands for "eXcellence and Leadership," is a national pilot program that tests innovative ways of achieving better and more cost-effective public health and environmental protection. Through site-specific agreements with project sponsors, EPA is gathering data and project experience that will help the agency redesign current approaches to public health and environmental protection. Under Project XL, sponsors-private facilities, multiple facilities, industry sectors, federal facilities, communities, and states-can implement innovative strategies that produce superior environmental performance, provide flexibility, cost savings, paperwork reduction, or other benefits to sponsors, and promote greater accountability to stakeholders. | Multi-media | All Industries | http://www.epa.gov/ProjectXL/ |

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| Industry | EPA WasteWiSe | Partners reduce municipal solid waste through source reduction, collecting recyclables, and increasing the manufacture or purchase of recycled products. Membership exceeds 700 companies and includes 35 business sectors. Companies are saving millions of dollars. Bank of America saved \$1 million through paper reduction efforts that included two-sided printing of customer statements. | CO ₂ , Solid Waste | Service | http://www.epa.gov/epaoswer/non-hw/reduce/wstewise |
| Power Generation | DOE/OIT Climate Challenge | Utilities, in partnership with DOE, identify and implement cost-effective activities that are specified in individual agreements between DOE and individual electric utilities. The actions that utilities have committed to in their agreements include: efficiency improvements in end-use, distribution, transmission, and generation; increased use of energy-efficient electrotechnologies; fuel switching to lower carbon fuels such as natural gas, nuclear, or renewable energy; transportation actions, including greater use of natural gas-powered and electric vehicles; forestry actions; recovery of methane from landfills and coal seams; and the use of fly-ash as a Portland cement substitute. | CO ₂ | Utilities | http://www.eren.doe.gov/climatechallenge |
| State/ Community Partnerships | DOE State Energy Program (SEP) | Enables states to address both national energy initiatives (SEP Program Projects) and local energy priorities (SEP Special Projects). Under the program's guidelines, states implement energy efficiency and renewable energy activities through a wide range of possible projects across all the energy-use sectors-buildings, industrial, utility, and transportation. Federal project funding leverages state contributions and private sector investments. | CO ₂ | States/ municipalities | http://www.eren.doe.gov/buildings/state_energy/ |
| State/ Community Partnerships | DOE Municipal Energy Management Program (MEMP) | Demonstrates innovative and realistic technologies, strategies, and management techniques in the area of local energy services. MEMP's activities assist urban America to: achieve increased energy efficiency, become more environmentally responsible, deliver local energy services more efficiently, stimulate economic growth by improving the local revenue base, and create sustainable urban areas. MEMP has implemented more than 300 projects in over 50 communities since 1978. MEMP leverages approximately \$3.6 in non-DOE funds for each MEMP project dollar. For the 1999 program year, 14 projects are currently being implemented. | CO ₂ | Municipalities | http://www.eren.doe.gov/buildings/municipal_energy_management/ |
| State/ Community Partnerships | EPA State and Local Climate Change Program | This outreach and education program targeting the public sector and the groups that provide support to states and localities (e.g., NGA, NCSL, ICMA, ICLEI). It is primarily a capacity- and infrastructure-building program that provides both technical and financial assistance on baseline GHG emissions, evaluates opportunities to reduce GHG emissions, and provides educational materials to key stakeholders on successful efforts. To date, 35 states have completed GHG inventories, and 25 states have initiated or completed state action plans. | CO ₂ and other GHGs | States, Municipalities | http://www.epa.gov/globalwarming/actions/state/index.html |