ATMOSPHERIC PROGRAM PARTNERSHIPS 2015 & 2016 ACHIEVEMENTS

Since 1992, the U.S. Environmental Protection Agency (EPA) has forged voluntary partnerships with thousands of companies and other enterprises to promote cost-effective ways to increase energy efficiency and reduce air pollution. EPA has worked with these partners to remove market barriers by developing tools, offering technical assistance, and serving as a credible voice in defining and conveying best practices.

ENERGY STAR® program. ENERGY STAR is the government-backed symbol for energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions. Thousands of industrial, commercial, utility, state, and local organizations—including more than 40 percent of the Fortune 500®—rely on their partnership with the EPA to deliver cost-saving energy efficiency solutions.

<u>Energy Supply Partnership Programs</u>. EPA's Energy Supply Partnership Programs—the <u>Green Power Partnership</u> (GPP) and the <u>Combined Heat and Power Partnership</u> (CHPP)—are designed to increase the nation's supply of clean energy and accelerate the adoption of clean energy supply technologies throughout the U.S.

<u>Methane Emission Reduction Partnership Programs</u>. EPA's Methane Emissions Reduction Partnership Programs collaborate with industry and key stakeholders to promote the cost-effective recovery and use of methane from key sectors, including agriculture / manure management (<u>AgSTAR</u>), coal mining (<u>Coalbed Methane Outreach Program</u>), municipal solid waste (<u>Landfill Methane Outreach Program</u>), and the oil and gas industry (<u>Natural Gas STAR</u>).

Fluorinated Gas Emission Reduction Partnership Programs. EPA's Fluorinated Gas Emissions Reduction Partnership Programs collaborate with industry and key stakeholders to reduce emissions of fluorinated greenhouse gases from key sectors including the electric power industry, appliance manufacturing, retailers, and from grocery stores and supermarkets. The programs include the GreenChill Advanced Refrigeration Partnership, SF6 Reduction Partnership for Electric Power Systems (EPS), and the Responsible Appliance Disposal Program (RAD).

2015 ACHIEVEMENTS

The table below provides estimated 2015 program benefits, including emissions reductions and, where data is available, cost savings. In total, the partnerships are estimated to have saved \$39 billion and avoided 425 million metric tons of greenhouse gases in 2015, and saved \$703 billion and avoided over 4.2 billion metric tons of greenhouse gases cumulatively since 1992. Technical notes summarizing the calculation methodologies are available on the <u>Achievements web page</u>.

TABLE 1. Summary of 2015 Atmospheric Program Partnerships benefits

	COST SAVINGS/ VALUE CREATED (BILLION 2015 \$) ¹		ENVIRONMENTAL BENEFITS GHG EMISSIONS REDUCTIONS (MMTCO2e)	
	ANNUAL SAVINGS 2015	CUMULATIVE SAVINGS 1992 - 2015	ANNUAL BENEFITS 2015	CUMULATIVE BENEFITS 1992 - 2015
ENERGY STAR	\$33.7	\$429.8	314.0	2,794.8
<u>Products and Homes</u>	\$23.2	\$248.1	170.7	1,283.0
Buildings	\$7.8	\$144.3	103.1	1,077.3
Industrial	\$2.6	\$37.3	40.1	434.5
ENERGY SUPPLY PROGRAMS	-	-	22.6	144.1
Green Power Partnership	-	-	22.6	144.1
METHANE PROGRAMS	\$5.3	\$273.2	75.3	1,214.7
Natural Gas STAR	\$1.9	\$152.6	27.0	635.5
<u>AgSTAR</u>	\$0.1	\$1.3	1.2	8.8
Landfill Methane Outreach Program (LMOP)	\$2.7	\$74.8	38.9	384.5
Coalbed Methane Outreach Program (CMOP)	\$0.6	\$44.5	8.2	186.0
FLUORINATED GAS PROGRAMS	-	-	13.6	95.4
SF6 Emission Reduction Partnerships for			6.1	57.0
Electric Power Systems	-	-	0.1	57.0
Responsible Appliance Disposal	-	-	0.2	1.8
GreenChill	-	-	7.3	36.6
TOTAL	\$39.0	\$703.0	425.5	4,249.0

¹ENERGY STAR program benefits include estimated electricity savings and primary fuel savings due to investment in energy-efficient technologies and services, and the value of those savings. Methane partnership program benefits include the value of the gas mitigated. Prior year dollar amounts included in cumulative savings are adjusted to reflect their value in 2015 dollars.

2016 ACHIEVEMENTS

The table below provides estimated 2016 program benefits, including emissions reductions and, where data is available, cost savings. In total, the partnerships are estimated to have saved almost \$37 billion and avoided nearly 450 million metric tons of greenhouse gases in 2016, and saved almost \$789 billion and avoided nearly 4.7 billion metric tons of greenhouse gases cumulatively since 1992. Technical notes summarizing the calculation methodologies are available on the <u>Achievements web page</u>.

TABLE 2. Summary of 2016 Atmospheric Program Partnerships benefits

TABLE 2. Summary of 2010 Atmosphere		AVINGS/	ENVIRONMENTAL BENEFITS	
	VALUE CREATED (BILLION 2016 \$) ¹		GHG EMISSIONS REDUCTIONS (MMTCO2e)	
	ANNUAL SAVINGS 2016	CUMULATIVE SAVINGS 1992 - 2016	ANNUAL BENEFITS 2016	CUMULATIVE BENEFITS 1992 - 2016
ENERGY STAR	\$31.9	\$487.9	327.4	3,122.2
Products and Homes	\$20.8	\$289.4	157.0	1,440.0
Buildings	\$9.6	\$156.1	124.8	1,202.1
Industrial	\$1.4	\$42.5	45.6	480.1
ENERGY SUPPLY PROGRAMS	-	-	26.4	170.6
Green Power Partnership	-	-	26.4	170.6
METHANE PROGRAMS	\$5.0	\$300.8	76.3	1,291.0
Natural Gas STAR	\$1.6	\$166.8	24.7	660.2
AgSTAR	\$0.1	\$1.5	1.3	10.0
Landfill Methane Outreach Program (LMOP)	\$2.8	\$83.8	42.5	427.0
Coalbed Methane Outreach Program (CMOP)	\$0.5	48.7	7.8	193.8
FLUORINATED GAS PROGRAMS	-	-	14.0	109.5
SF6 Emission Reduction Partnerships for			6.0	62.9
Electric Power Systems	-	-	6.0	02.9
Responsible Appliance Disposal	-	-	0.2	2.0
GreenChill	-	-	7.9	44.5
TOTAL	\$36.9	\$788.8	444.1	4,693.3

¹ENERGY STAR program benefits include estimated electricity savings and primary fuel savings due to investment in energy-efficient technologies and services, and the value of those savings. Methane partnership program benefits include the value of the gas mitigated. Prior year dollar amounts included in cumulative savings are adjusted to reflect their value in 2016 dollars.