

# IBM's 2016 VOLUNTARY ENVIRONMENTAL PERFORMANCE GOALS AND RESULTS

IBM maintains goals covering the range of its environmental programs, including climate protection, energy and water conservation, pollution prevention, waste management, and product stewardship. The goals identified here as KPIs are based on stakeholder interest and materiality. IBM considers all of its goals to be important metrics of the company's performance against its commitment to environmental protection.

## Energy conservation **KPI**

IBM's goal is to achieve annual energy conservation savings equal to 3.5 percent of IBM's total energy use. In 2016, IBM again achieved this goal, attaining a 5.3 percent savings from its energy conservation projects.

<b>Energy conservation</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
As % of total energy use	6.5	6.7	6.7	6.3	5.3

## Renewable electricity procurement **KPI**

IBM's renewable electricity procurement goal is to purchase 20 percent of our electricity consumption from renewable sources by 2020, over and above the quantity of renewable energy provided as part of the mix of electricity that we purchase from the grid. In 2016, IBM contracted with its utility suppliers to purchase approximately 783,000 megawatt-hours of renewable electricity, representing 21.5 percent of our global electricity consumption and exceeding our goal four years early.

<b>Renewable electricity procurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
As % of total electricity purchases	9.8	11.8	14.2	16.2	21.5

## CO<sub>2</sub> emissions reduction **KPI**

Our third-generation CO<sub>2</sub> emissions reduction goal is to reduce CO<sub>2</sub> emissions associated with our energy consumption 35 percent by year-end 2020, against base year 2005 and adjusted for acquisitions and divestitures. In 2016, IBM achieved and exceeded this goal four years early as IBM reduced its operational CO<sub>2</sub> emissions by 38.1 percent against the 2005 baseline.

<b>CO<sub>2</sub> emissions reduction</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
As % of 2005 baseline CO <sub>2</sub> emissions	15.7	24.7	27.7	28.7	38.1

## Product energy efficiency **KPI**

IBM has two goals related to product energy efficiency. The first goal is to improve the computing power delivered for each kilowatt-hour of electricity used with each new generation or model of a product. The second goal is to qualify its new server and storage products to the ENERGY STAR program criteria where practical, and where criteria have been developed for the specific server or storage product type. Please see the 2016 [product stewardship goals and performance table](#) for information regarding performance against these goals.

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## Nonhazardous waste recycling **KPI**

Our goal is to send an average of 75 percent (by weight) of the nonhazardous waste generated at locations managed by IBM to be recycled. In 2016, we recovered and recycled 86 percent of our nonhazardous waste.

<b>Nonhazardous waste recycling</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
% by weight sent for recycling of total generated	87	86	86	85	86

## Product end-of-life management **KPI**

IBM's goal is to reuse or recycle end-of-life IT products such that the amount of product waste sent by IBM's product end-of-life management (PELM) operations to landfills or incineration for treatment does not exceed a combined 3 percent (by weight) of the total amount processed. In 2016, IBM's PELM operations sent only 0.6 percent of the total processed to landfill or incineration facilities for treatment.

<b>Product end-of-life management</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
% by weight of total processed sent by IBM's PELM operations to landfill or incineration for treatment	0.3	0.3	0.5	0.7	0.6

## Water conservation **KPI**

In early 2016, IBM established a new goal to achieve ongoing year-to-year reductions in water withdrawals at data centers and other large IBM locations in water-stressed regions. In 2016, IBM reduced water withdrawals at these locations by 6.6 percent against a 2015 baseline year.