Better Plants®
U.S. DEPARTMENT OF ENERGY

Frequently Asked Questions (FAQ)

This document features answers to the most Frequently Asked Questions about the U.S. Department of Energy's (DOE) Better Buildings, Better Plants Program. It attempts to further define and explain specific aspects of the program, including objectives, requirements and industry participation. Choose from the list of questions below to learn more:

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1. What is the Better Buildings, Better Plants Program and why is it important?

The U.S. Department of Energy's (DOE's) Better Buildings, Better Plants Program (commonly referred to as the Better Plants Program) is a national partnership initiative to drive significant improvement in energy efficiency across U.S. industry. The U.S. industrial sector has an annual energy bill of about $200 billion; however, there are significant savings available through cost-effective investment in energy efficiency and combined heat and power (CHP). The industrial sector has the potential to invest more than $100 billion in cost-effective, energy efficient technologies by 2020, which would result in total energy savings of 5 quadrillion BTUs and annual cost savings of almost $50 billion. Capturing these savings helps manufacturers save money, reduce air pollution, and stay competitive in global markets.

Leading manufacturers are working with DOE through the Better Plants Program to improve their energy intensity, usually by 25% over ten years, develop energy management plans, and track and report their annual progress. The Department helps these companies establish key energy performance metrics, evaluate energy-saving opportunities, and organize plant-level training events. Today, over 120 companies are partnering with DOE through Better Plants, representing close to 1,800 facilities and about 8% of the total U.S. manufacturing energy footprint.

2. How does my company join the Better Plants Program?

Companies join the Better Plants Program by signing a 2-page partnership agreement form. The form should be signed by the company's CEO or senior executive. For a copy of the form, please email the Better Plants Team at betterplants@ee.doe.gov

3. What does DOE offer Better Plants Partners?

DOE provides national recognition and technical assistance to help partners meet their energy efficiency goals. Recognition comes in the form of profiles on DOE's web sites, letters from DOE leadership, invitations to special events, and articles in the Better Plants newsletter. Technical assistance is delivered through technical account managers who help companies develop energy management plans, identify energy-saving opportunities, and track energy performance metrics. Better Plants Partners can also participate in or host in-plant training sessions. During these unique, 3- to 4-day sessions, experts in industrial energy efficiency train plant staff in establishing an energy management system, conducting plant assessments, applying DOE tools, and implementing cost-effective projects.

4. What companies already participate in Better Plants?

More than 120 companies, representing close to 1,800 plants and 8% of the total U.S. manufacturing energy footprint, currently participate in Better Plants. A wide range of manufacturing sectors are represented in the program, including steel (ArcelorMittal), chemicals (Dow), autos (General Motors), aerospace (Raytheon), food processing (PepsiCo), appliances (Whirlpool), paper products (Weyerhaeuser), and cement (Holcim). A full listing of current partners can be found here: energy.gov/eere/amo/better-plants-program-partners

5. Does it cost anything to join this program?

No. There is no fee or cost to participate in Better Plants.

6. What is the Better Plants Challenge and what is its relationship to the Better Plants Program?

The Better Plants Challenge is the industrial component of the Better Buildings Challenge, a voluntary leadership initiative that asks CEOs and executives of U.S. companies, universities, school districts, multifamily residential organizations, and state and local governments to make a public commitment to energy efficiency. Through the Better Buildings Challenge, the U.S. Department of Energy (DOE) is highlighting leaders that have committed to upgrading buildings and plants across their portfolio, and providing their energy savings data and strategies as models for others to follow. It is a key element of the broader Better Buildings Initiative—announced by President Obama in February of 2011—a multi-strategy initiative designed to reduce by 20 percent the energy intensity in the commercial and industrial sectors by 2020 and catalyze revolutionary change in energy use across U.S. buildings. More than 170 organizations are partners in the Better Buildings Challenge. These organizations represent three billion square feet of commercial building space, 400 manufacturing facilities and almost $2 billion in financial commitments from the private sector.

Manufacturers can partner with DOE through either the Better Plants Challenge or the Better Plants Program. The Better Plants Program is a broader-based initiative, composed of over 120 companies that make long-term commitments to energy efficiency and report their progress once-a-year. The Better Plants Challenge is a more select group of manufacturers that take on additional commitments to openly share their energy performance data and market-leading energy efficiency strategies. DOE provides additional recognition to Challenge Partners for their willingness to share best practices and solutions. There are 13 Better Plants Challenge Partners, representing about 400 plants, as of February 2014. Many of these partners first joined Better Plants at the Program level before moving into the Challenge. Program Partners interested in expanding their leadership in energy efficiency and deepening their partnership with DOE are encouraged to consider the Better Plants Challenge.

These FAQs primarily address the Better Plants program. For more information on the Better Buildings Challenge please see: eere.energy.gov/challenge

7. Why does DOE ask Better Plants Partners to set a 10-year, 25% goal?

The 2005 Energy Policy Act directed DOE to work with industrial partners to reduce their energy intensity by at least 2.5% per year over a 10-year period. DOE data indicates that this is an aggressive, but achievable target. The Energy Information Administration (EIA) projects that the business as usual rate of improvement in the industrial sector over the next 10 years will be around 1.2% per year. Through Better Plants, DOE is asking partners to improve their energy efficiency about twice as fast as the anticipated trend rate for the U.S. industrial sector.

On average, partners have improved their energy efficiency by more than 2.5% per year in each of the three years for which DOE has data. Already, five companies have officially met their 25% goal, with many more expected over the next few years.

8. Is there any flexibility in selecting a baseline year?

Yes. Companies joining Better Plants must establish a baseline year (year 0) for tracking energy performance. The baseline year should usually be the most recent calendar or fiscal year before joining the program, or the year the company joins. But partners can set the baseline year up to three years prior to joining the program to capture recent energy savings accomplishments, or if an earlier baseline aligns with existing greenhouse gas or other corporate sustainability targets. Also, a recent major event such as a large acquisition, closure of significant facilities or an extended production stoppage may justify selecting a baseline year other than the most recent year. In all cases, the Partner's commitment shall be interpreted as striving for a 25% energy intensity improvement within 10 years after the end of the baseline year. For example, a company joining Better Plants in 2012 and setting calendar year 2011 as its baseline year is striving for a 25% improvement in energy intensity by January of 2022. Likewise, a company which joined the program in 2011 and set calendar year 2009 as its baseline year is striving for a 25% improvement in energy intensity by the beginning of 2020 (Year 0 = 2009, Year 1 = 2010, and Year 10 = 2019).

9. Can companies negotiate alternative energy saving goals that are less aggressive than 25% over 10 years?

Companies from energy intensive sectors (i.e., iron and steel, aluminum, glass, paper, petroleum, and chemical industries) may negotiate alternate targets with DOE that are more ambitious than the projected business as usual rate for their sector, but less aggressive than 25% over 10 years. EIA data generally supports the notion that companies from these sectors have a harder time achieving the 25% target than less energy-intensive companies. This is due to a longstanding focus on energy efficiency within energy-intensive sectors, driven by cost concerns. Companies wishing to explore this option must be prepared to share energy data with DOE in order to arrive at a mutually agreed upon goal.

10. How is energy intensity calculated?

DOE provides flexibility to partners in calculating and reporting energy intensity. The Department recommends companies normalize their energy performance numbers using regression analysis to control for independent variables that affect energy consumption, such as production, weather, and space utilization. DOE's Energy Performance Indicator Tool (EnPI) was designed specifically to help Better Plants Partners with these calculations.

Partners can also report more traditional energy intensity metrics—usually expressed as energy consumption divided by some unit of physical output (BTUs/ton of steel, for example). Some companies use a financial metric to track energy intensity—usually energy consumption divided by total revenue. DOE requires that companies report their energy data in terms of source (or primary) energy. Technical Account Managers are available to help partners with their energy intensity calculations.

11. Why does DOE require energy data to be reported in primary as opposed to site units?

DOE requires the reporting of primary energy (also known as source energy) to ensure that the total energy used to generate, transmit, and distribute electricity from the power generation source to the end user is factored into a company's energy consumption metrics. In addition, calculating savings in terms of primary energy ensures that the full benefits of technologies like CHP and on-site renewable energy (e.g. solar and wind) that reduce losses within the transmission lines and in the conversion of fuels are captured. Source energy accounting is also consistent with national and international greenhouse gas reporting initiatives and aligns with existing energy reporting requirements by DOE and EPA for other federal programs, including Superior Energy Performance and ENERGY STAR.

Although there are regional and other variations, on average each unit of electricity that reaches the end-user (i.e. site energy) requires approximately three times more energy to generate it (i.e. primary energy). For Better Plants annual reporting purposes, primary energy consumption of purchased electricity involves converting kilowatt-hours to MMBtus (1 kWh = 3412 Btu = 0.003412 MMBtu) and then multiplying by 3.0. If data exists to document the actual fuel mix and transmission and distribution losses of electricity for its facilities, a company may opt to use a different multiplier, so long as it uses the same multiplier consistently across all the years it participates in the program.

12. What is the relationship between Better Plants and Superior Energy Performance (SEP)?

Better Plants and SEP are two DOE voluntary programs that are designed to foster continual improvement in industrial energy efficiency. The difference between the two is mainly the scope and scale of the commitment. Better Plants Partners make a corporate commitment to reduce the energy intensity of all their U.S. manufacturing facilities, usually by 25% over ten years. SEP aims to certify individual manufacturing facilities for improvements in energy performance that have already been achieved (retrospective), and verified by a third-party verification body. SEP also requires that participating plants adopt the ISO 50001 energy management standard, while Better Plants does not.

Many companies are already participating in both SEP and Better Plants, with some Better Plants Partners implementing SEP across multiple facilities through the new SEP Enterprise-wide Accelerator. Better Plants provides structure to companies' corporate energy management programs and can assist and motivate facilities to implement SEP. Companies participating in Better Plants receive technical assistance from DOE to implement SEP at one or more plants, and will receive national recognition for their accomplishments. SEP provides a method for Better Plants Partners to accelerate their energy savings and achieve their corporate goals. SEP also provides added rigor to verifying energy performance at the facility level.

13. Are there any company size restrictions to joining Better Plants?

No. Companies of any size may join Better Plants so long as they have manufacturing operations in the United States. Most Partners are multi-site operations, though there are several single-plant companies involved as well. While the average estimated energy spend per company is about $60 million per year, the range is considerable with several companies spending less than $500,000, and the largest spending more than $100 million.

14. What happens when my company meets the 25% goal?

Companies that meet the 25% target will be recognized for their achievement by DOE. Recognition may take the form of certificates, letters, and other items presented by DOE management at conferences or other events.

Companies that meet the initial 25% target will be encouraged to set a new goal in partnership with the Better Plants Program and build on their achievement. DOE will consider past accomplishments in setting these targets. New goals will need to be ambitious, though not necessarily equivalent to 25% over 10 years.

15. What happens if my company joins and does not meet our goal?

The Better Plants Partnership Agreement is not legally binding, and partners are not penalized for falling short of the ten-year target. Companies can also withdraw from the program at any point without consequence. Partners are, however, required to submit their annual data reports. DOE may end its relationship with companies that fail to provide their annual reports on a timely basis.

16. How does DOE handle the energy performance data my company submits?

DOE maintains confidentiality of all energy data submitted to it by Better Plants Partners. Partners are encouraged to voluntarily disclose their cumulative energy performance improvement (in percentage terms) through their web profiles, but this is not required. DOE will, from time-to-time, publicly share aggregate, program-wide metrics, such as number of plants, total energy footprint, and annual and cumulative energy savings.

Partners participating in the Better Plants Challenge agree to publicly disclose more of their data. This includes: percent improvement in energy performance, both annually and cumulatively; number of plants participating in the program; total energy consumption across all participating plants (stated in primary BTUs); and a limited amount of plant-level data. For more information on energy data disclosed through the Better Plants Challenge, see partner data display pages here: eere.energy.gov/challenge/energy-performance

All data provided to DOE is subject to the Freedom of Information Act (FOIA), however, DOE provides companies with substantial protections in the event of a FOIA request. DOE will notify partners if a FOIA request has been submitted that impacts their data. DOE will then work with the partner to determine what data is proprietary. DOE will not release to the public any data it deems proprietary.

17. Can companies headquartered outside of the United States join Better Plants?

Yes. Companies based outside the U.S. can join Better Plants as long as they have a manufacturing presence in the U.S., and commit to reduce energy intensity across all of their U.S. manufacturing operations. DOE only collects data on U.S. facilities. Plants located outside the country are effectively excluded from the Better Plants commitment.