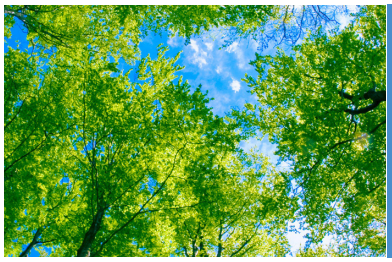


ABOUT ENERGY STAR® – 2020

The simple choice for energy efficiency.

April 2021

What is ENERGY STAR?

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 nearly 40% of the Fortune 500®—partner with the U.S. Environmental Protection Agency (EPA) to deliver cost-saving energy efficiency solutions that protect the climate while improving air quality and protecting public health. Since 1992, ENERGY STAR and its partners have helped American families and businesses save 5 trillion kilowatt-hours of electricity, avoid more than $450 billion in energy costs, and achieve 4 billion metric tons of greenhouse gas reductions. Over the lifetime of the program, every dollar EPA has spent on ENERGY STAR resulted in $350 in energy cost savings for American business and households. In 2019 alone, ENERGY STAR and its partners helped Americans save nearly 500 billion kilowatt-hours of electricity and avoid $39 billion in energy costs.

ENERGY STAR products

ENERGY STAR is the simple choice for energy efficiency, making it easy for consumers and businesses to purchase products that save them money and protect the environment. EPA ensures that each product that earns the label is independently certified to deliver the efficiency performance and savings that consumers have come to expect. It's that integrity that led Americans to purchase more than 300 million ENERGY STAR certified products in 2019 and more than 300 million ENERGY STAR certified light bulbs, with a market value of more than $100 billion. In fact, an average of 800,000 ENERGY STAR certified products was sold every day in 2019, bringing the total to more than 7 billion products sold since 1992. Learn more about ENERGY STAR products.

DID YOU KNOW?

90% of American households recognize the ENERGY STAR logo, making it one of the most widely recognized consumer symbols in the nation.

The nation's twenty largest homebuilders all build ENERGY STAR certified homes.

33 different industrial sectors—from bakeries and pharmaceutical plants to steel mills, distilleries, and refineries–work with ENERGY STAR to manage their energy use.

Americans purchased ENERGY STAR certified products in 2019 with a market value of more than **$100 billion.**

ENERGY STAR for buildings and plants

ENERGY STAR tools and resources help businesses identify cost-effective approaches to managing energy use in their buildings and plants—enabling the private sector to save energy, increase profits, and strengthen their competitiveness. From commercial properties such as hospitals, schools, and offices and tenant spaces, to industrial facilities such as cookie and cracker bakeries and integrated steel mills, thousands of businesses and organizations look to ENERGY STAR for guidance on strategic energy management.

The program's popular online tool, ENERGY STAR Portfolio Manager®, was used in 2020 to measure and track the energy, water, and/or waste and materials of more than 270,000 commercial properties, comprising more than 25 billion square feet of floorspace, across the nation. For eligible buildings, the tool calculates a 1–100 ENERGY STAR score, which has become the industry standard for rating a facility's energy performance. EPA's ENERGY STAR tools for industrial plants include industry-specific Energy Performance Indicators (EPIs), which provide companies with the information they need to make smart investment decisions. ENERGY STAR Tenant Space is a new EPA recognition to reduce utility bills and greenhouse gas emissions in leased spaces.

Learn more about ENERGY STAR for commercial buildings and industrial plants.

ENERGY STAR for the residential sector

ENERGY STAR certified homes and apartments are at least 10% more energy efficient than those built to code and achieve a 20% improvement on average while providing homeowners and residents with better quality, performance, and comfort. More than three thousand builders, developers, and manufactured housing plants are ENERGY STAR partners, including all of the nation's twenty largest home builders. Over 2.2 million ENERGY STAR certified homes have been built to date, including more than 120,000 in 2020 alone. EPA also provides trusted guidance and online tools to help homeowners make smart decisions about improving the energy efficiency of their existing homes. In addition, more than 70,000 homeowners retrofitted their homes through the Home Performance with ENERGY STAR program in 2020, for a total of nearly 950,000 to date. Learn more about ENERGY STAR for the residential sector.

Utilities and local governments rely on ENERGY STAR

Nationwide, utilities invested $8.4 billion in energy efficiency programs in 2019. With hundreds of different utilities scattered around the country, EPA plays a critical unifying role to guide their energy efficiency programs. EPA enables utilities to leverage ENERGY STAR as a common national platform, avoiding the creation of hundreds of independent utility programs across the nation, which could fragment the market and stall innovation. More than 840 utilities, state and local governments, and nonprofits leverage ENERGY STAR in their efficiency programs, reaching roughly 97% of households in all 50 states.

Additionally, as of the end of 2020, 34 local governments, three states, and one Canadian province rely on EPA's ENERGY STAR Portfolio Manager® tool as the foundation for their energy benchmarking and transparency policies and/or building performance standards, creating uniformity for businesses and reducing transaction and implementation costs.

DID YOU KNOW?

More than **840** utilities, state and local governments, and nonprofits leverage ENERGY STAR in their efficiency programs, reaching roughly 97% of households in all 50 states.

In 2020 alone, more than **270,000** commercial properties used EPA's ENERGY STAR Portfolio Manager tool® to measure and track their energy use, water use, and/or waste and materials.

ENERGY STAR® TenantSpace™

Launched in October 2020, ENERGY STAR Tenant Space offers recognition to energy efficient leased spaces.

Over 800,000 Americans are employed in manufacturing or installing ENERGY STAR certified appliances, including heating and cooling equipment--over 35% of an estimated 2.4 million U.S. energy efficiency jobs in 2019.

ENERGY STAR, jobs, and the economy

ENERGY STAR supports the transition to a clean energy economy by fostering jobs and economic development, greater competitiveness, and a healthy environment. ENERGY STAR certified products, homes, buildings, and plants helped save Americans families and businesses nearly 500 billion kilowatt-hours of electricity and avoid $39 billion in energy costs in 2019 alone. The ENERGY STAR Program leverages significant private investment – over the life of the program, every dollar EPA has spent on ENERGY STAR resulted in $250 invested by American businesses and households in energy efficient infrastructure and services.

Additionally, according to the U.S. Energy and Employment Report, over 800,000 Americans are employed in manufacturing or installing ENERGY STAR certified appliances, including heating and cooling equipment -- roughly 35% of an estimated 2.4 million U.S. energy efficiency jobs in 2019. Moreover, by increasing energy efficiency, ENERGY STAR is supporting U.S. energy security and helping improve the reliability of the electricity grid.

ENERGY STAR and the environment

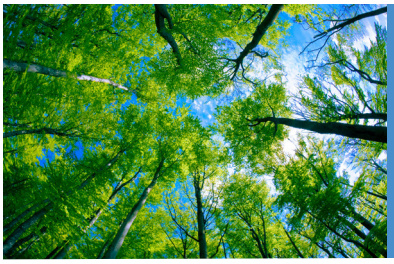
ENERGY STAR is an important tool in fighting climate change, improving air quality, and protecting public health. By reducing emissions of greenhouse gases and other air pollutants, ENERGY STAR also provides states and local governments with more flexibility and reduced costs towards meeting their climate, air quality, and public health goals. In 2019 alone, ENERGY STAR and its partners helped Americans save nearly 500 billion kilowatt-hours of electricity and avoid $39 billion in energy costs. These savings resulted in associated emissions reductions of nearly 390 million metric tons of greenhouse gases, roughly equivalent to 5% of U.S. total greenhouse gas emissions. These savings also led to reductions of 220,000 short tons of sulfur dioxide, 220,000 short tons of nitrogen oxides, and 27,000 short tons of fine particulate matter (PM2.5). The avoided air pollution due to ENERGY STAR was responsible for an estimated $7 – 17 billion in public health benefits in 2019 alone. Since 1992, ENERGY STAR has helped reduce 4 billion metric tons in greenhouse gas reductions. For every dollar of EPA investment, 3 metric tons of GHGs are reduced.

ENERGY STAR and equity

Beyond the emissions reductions benefits noted above, ENERGY STAR relies on several pathways to help disadvantaged consumers access the program and save money. For example, ENERGY STAR prioritizes outreach to low-income populations on products that have the greatest opportunity to save energy and dollars. And for products that may be cost-prohibitive, such as replacement windows, the ENERGY STAR program looks for alternatives. In the case of windows, EPA recently added storm windows as a new ENERGY STAR product category, giving consumers a lower-cost option that is easier to install. Paired with carefully researched bilingual messaging, utility-sponsored rebates, and geo-targeted advertising to encourage purchases, ENERGY STAR certified products can deliver significant cost savings for low-income families.

ENERGY STAR is also focused on increasing the energy efficiency of affordable homes across all sectors. Roughly 20% of ENERGY STAR builder partners work in the affordable housing space, including 550 Habitat for Humanity affiliates who have constructed more than 18,000 ENERGY STAR certified homes. ENERGY STAR also partners with 80 manufactured housing plants that have built more than 66,500 ENERGY STAR certified manufactured homes. Within the multifamily sector, more than 75 percent of ENERGY STAR multifamily high-rise projects are identified as affordable housing. In addition, ENERGY STAR home certification is used as criteria by more than 30 state government housing finance programs that provide low-income housing tax credits.

For additional details about ENERGY STAR achievements see ENERGY STAR Impacts.
For ENERGY STAR facts and figures broken down geographically by state, see ENERGY STAR State Fact Sheets.
For achievements by ENERGY STAR Award Winners, see the ENERGY STAR Award Winners Page.



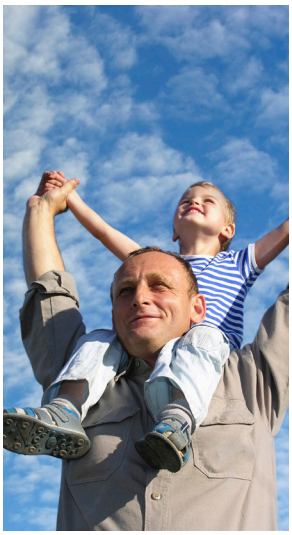
ENERGY STAR® IMPACTS– 2020

The simple choice for energy efficiency.

April 2021

ENERGY STAR® delivers real energy, environmental, and economic impacts. As the government-backed symbol for energy efficiency, ENERGY STAR provides 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 nearly 40 percent of the Fortune 500®— partner with the U.S. Environmental Protection Agency (EPA) to deliver cost-saving energy efficiency solutions through voluntary action.

ENERGY STAR results



- Since 1992, ENERGY STAR and its partners helped American families and businesses save **5 trillion** kilowatt-hours of electricity, avoid more than $450 billion in energy costs, and achieve 4 billion metric tons of greenhouse gas reductions.[1,2]
- Over the lifetime of the program, every dollar EPA has spent on ENERGY STAR resulted in **$350** in energy cost savings for American business and households.[1]
- In 2019 alone, ENERGY STAR and its partners helped Americans save nearly 500 billion kilowatt-hours of electricity and avoid **$39 billion** in energy costs. These savings resulted in associated emission reductions of nearly 390 million metric tons of greenhouse gases, roughly equivalent to 5% of U.S. total greenhouse gas emissions.[1,2]
- Over the lifetime of the program, for every dollar of EPA investment, **three metric tons** of GHGs are reduced.[2]
- ENERGY STAR's 2019 energy savings also led to reductions of 220,000 short tons of sulfur dioxide, 220,000 short tons of nitrogen oxides, and 27,000 short tons of fine particulate matter (PM2.5). This avoided air pollution was responsible for an estimated **$7 – 17 billion** in public health benefits.[2]
- The ENERGY STAR Program leverages significant private investment – over the life of the program, every dollar EPA has spent on ENERGY STAR resulted in **$250** invested by American businesses and households in energy efficient infrastructure and services.[1]
- More than **90%** of American households recognize the ENERGY STAR.[3]
- More than **840** utilities, state and local governments, and nonprofits leverage ENERGY STAR in their efficiency programs, reaching roughly **97%** of households in all 50 states. Nationwide, utilities invested $8.4 billion in energy efficiency programs in 2019.[4]
- Over **800,000** Americans are employed in manufacturing or installing ENERGY STAR certified appliances, including heating and cooling equipment -- roughly 35% of an estimated 2.4 million U.S. energy efficiency jobs in 2019.[5]

ENERGY STAR products

- In 2019, ENERGY STAR certified products helped consumers save 230 billion kilowatt-hours of electricity, avoid **$23 billion** in energy costs, and achieve 170 million metric tons of greenhouse gas reductions.[1,2]
- Americans purchased more than **300 million** ENERGY STAR certified products and more than 300 million ENERGY STAR certified light bulbs in 2019, for cumulative totals exceeding 7 billion products and more than 4 billion light bulbs, respectively.
- For the first time, a majority of American households surveyed reported purchasing an ENERGY STAR certified product.[3]
- The estimated annual market value of ENERGY STAR product sales is more than **$100 billion**.
- EPA sets definitions of efficiency leadership for more than **75** residential and commercial product categories. Currently, approximately **75,000** product models have earned the ENERGY STAR based on these rigorous criteria.
- More than **3,600** product models from over 280 manufacturers were recognized as "ENERGY STAR Most Efficient" in 2020.
- By choosing ENERGY STAR, a typical household can save about **$450** on energy bills and still enjoy the quality and performance they expect.[6]
- **70%** of purchasers would recommend ENERGY STAR products to a friend.[3]

Learn more about ENERGY STAR products.

ENERGY STAR for commercial buildings

- In 2019, the ENERGY STAR program for commercial buildings helped businesses and organizations save 230 billion kilowatt-hours of electricity, avoid **$14 billion** in energy costs, and achieve 170 million metric tons of greenhouse gas reductions.[1,2]
- In 2020 alone, more than **270,000** commercial properties used EPA's ENERGY STAR Portfolio Manager® tool to measure and track their energy use, water use, and/or waste and materials. These buildings comprise more than 25 billion square feet of floorspace—more than a quarter of all the commercial floorspace in the nation.
- More than **6,400** buildings earned the ENERGY STAR in 2020 bringing the total close to 38,000 buildings.
- On average, ENERGY STAR certified buildings use **35%** less energy than typical buildings nationwide.
- As of the end of 2020, **34** local governments, **three** states, and **one** Canadian province rely on EPA's ENERGY STAR Portfolio Manager® tool as the foundation for their energy benchmarking and transparency policies.

Learn more about ENERGY STAR for commercial buildings.

ENERGY STAR for industrial plants

- In 2019, the ENERGY STAR program for industrial plants helped businesses save 35 billion kilowatt-hours of electricity, avoid **$2 billion** in energy costs, and achieve 40 million metric tons of greenhouse gas reductions.[1,2]
- As of 2020, **33** diverse industrial sectors work with ENERGY STAR to strategically manage their energy use, from cookie and cracker bakeries and pharmaceutical plants to integrated steel mills and petroleum refineries.
- **95** industrial plants earned the ENERGY STAR in 2020.
- **42** industrial plants achieved energy intensity reductions in the 2020 ENERGY STAR Challenge for Industry campaign in which industrial sites commit to reducing their energy intensity by 10% within five years. 183 plants registered baseline energy use intensity with the Challenge for Industry in 2020.

Learn more about ENERGY STAR for industrial plants.

ENERGY STAR for the residential sector

- In 2019, the ENERGY STAR residential new construction program helped homeowners save 3 billion kilowatt-hours of electricity, avoid **$410 million** in energy costs, and achieve nearly 4 million metric tons of greenhouse gas reductions.[1,2]
- More than **2.2 million** ENERGY STAR certified new homes and apartments have been built to-date, including more than 120,000 in 2020 alone.
- More than **3,000** builders, developers, and manufactured housing plants are ENERGY STAR partners, including all of the nation's twenty largest home builders. **One out of every 12** single-family homes built in 2020 was ENERGY STAR certified.
- ENERGY STAR certified homes and apartments are at least **10%** more energy efficient than those built to code and achieve a **20%** improvement on average while providing homeowners and residents with better quality, performance, and comfort.
- In 2020, more than 70,000 homeowners retrofitted their homes through the Home Performance with ENERGY STAR program in 2020, for a total of nearly **950,000** to date.

Learn more about ENERGY STAR for the residential sector.

For more information on our calculation methods, see the **Technical Notes** (PDF, 150 KB). For ENERGY STAR figures broken down geographically by state, see **ENERGY STAR State Fact Sheets**. For achievements by ENERGY STAR Award Winners, see the **ENERGY STAR Award Winners Page**.

References

The majority of data cited is from 2020. In cases where 2020 data is not yet available, 2019 data is used. All instances are noted as such.

1. Estimated energy cost savings represent the present value of net energy cost savings, calculated by taking the difference between total energy bill savings and the incremental additional investment in energy-efficient technologies and services.
2. Estimates of contributions to emissions reductions do not account for overlapping impacts of regulatory programs and may be affected by other dynamics on the electrical grid.
3. EPA Office of Air and Radiation, Climate Protection Partnerships Division. (2020). National Awareness of ENERGY STAR® for 2019: Analysis of 2019 CEE Household Survey. http://energystar.gov/awareness.
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5. NASEO and Energy Futures Initiative. (2020). U.S. Energy and Employment Report. https://www.usenergyjobs.org/. The survey does not account for retail employment.
6. Lawrence Berkeley National Laboratory. (2020). Typical House Estimates. Prepared for EPA Office of Air and Radiation, Climate Protection Partnerships Division.

About ENERGY STAR® Products – 2020

The simple choice for energy efficiency.

Published April 2021

About ENERGY STAR for Products

ENERGY STAR is the simple choice for energy efficiency, making it easy for consumers and businesses to purchase products that save them money and protect the environment. Products that earn the ENERGY STAR label are independently certified to meet strict standards for energy efficiency set by the EPA. It's that integrity that led Americans to purchase more than 300 million ENERGY STAR certified products and more than 300 million ENERGY STAR certified light bulbs in 2019, with a market value of more than $100 billion. In fact, an average of 800,000 ENERGY STAR certified products were sold every day in 2019, bringing the total to more than 7 billion products sold since 1992.

The Power of Partnership

Consumers, utilities, and retailers all depend on the ENERGY STAR program to highlight products that deliver real consumer savings and give partners the tools they need to differentiate their efficient products. In 2020, approximately 2,000 manufacturers and 1,900 retailers partnered with ENERGY STAR to make and sell millions of ENERGY STAR certified products across more than 75 residential and commercial product categories. Utilities and retailers also teamed up with ENERGY STAR to coordinate consumer education, leveraging ENERGY STAR materials to provide consistent information to consumers. This includes a focused effort to raise awareness about efficient heat pumps, water heaters, refrigerators, laundry equipment, pool pumps, smart thermostats and light bulbs.

Evolving with the Market

As technology improves and markets change, ENERGY STAR evolves to deliver additional savings. For example, the ENERGY STAR® specification for refrigerators was established in 1996 and has been updated multiple times. These updates also helped reduce the average energy consumption of refrigerators by 24% while the average volume increased 18% from 1996-2017. View refrigerators graph. The ENERGY STAR specification for clothes washers demonstrated a similar trend with an even greater drop of 30% in energy consumption while the average capacity increased 34% from 2004-2017. View clothes washers graph.

In 2020, EPA updated performance requirements for data center storage and commercial dishwasher product categories. EPA also expanded the types of large network equipment, imaging equipment, geothermal heat pumps, and lamps eligible for certification under ENERGY STAR specifications and updated optional ENERGY STAR connected criteria for room air conditioners. More than 3,600 product models from over 280 manufacturers were recognized as "ENERGY STAR Most Efficient," a distinction that recognizes products that deliver cutting-edge energy efficiency along with the latest in technological innovation. Laundry centers and DGX-to-water heat pumps were added as product types eligible for ENERGY STAR Most Efficient recognition.

Ensuring Program Integrity

In 2019, EPA oversaw robust third-party certification of ENERGY STAR products, administered by more than 20 independent certification bodies and more than 500 labs. EPA also requires that a sample of products is tested directly off retailers' shelves. In 2019, EPA-recognized certification bodies administered post-market verification testing on nearly 2,000 products, resulting in 126 unique disqualifications for a compliance rate of 94%. Learn more at energystar.gov/integrity.

About ENERGY STAR® Products – 2020

The simple choice for energy efficiency.

Published April 2021

Program savings

In 2019, ENERGY STAR certified products helped consumers save 230 billion kilowatt-hours of electricity, avoid $23 billion in energy costs, and achieve 170 million metric tons of greenhouse gas reductions.

Spotlight on: Heat Pumps – The Clean Heat (and Cooling) of the Future

As part of the EPA's commitment to decarbonization, ENERGY STAR is emphasizing heat pump technologies, both in terms of increasing acceptance in the residential sector but also contributing to performance improvements. Roughly 25% of home heating equipment unit sales in 2019 were ENERGY STAR certified heat pumps. As carbon emissions associated with electricity generation continue to decline in the U.S., heat pumps present a cleaner and more sustainable choice, with the energy-efficiency potential to significantly offset the growth in electricity demand that is expected with increased electrification. In 2021, EPA will introduce ENERGY STAR requirements specific to heat pumps intended for use in cold climates. These new requirements are specially designed to help ensure heat pumps not only save energy at low temperatures but do so while delivering enough heat.

In addition, ENERGY STAR is addressing issues associated with equipment installation and maintenance can undermine expected energy savings. For instance, equipment that is oversized will use more energy than is needed for a particular home, or it will have to work harder if the airflow is not properly optimized for the size of the air ducts. While these issues have historically been out of the control of equipment manufacturers, ENERGY STAR is incentivizing emerging technology solutions, including variable speed compressors and automatic fault detection and diagnostics (AFDD).

For additional details about ENERGY STAR achievements see ENERGY STAR Impacts.
For ENERGY STAR facts and figures broken down geographically by state, see ENERGY STAR State Fact Sheets.
For achievements by ENERGY STAR Award Winners, see the ENERGY STAR Award Winners Page.

About ENERGY STAR® Homes – 2020

The simple choice for energy efficiency.

Published April 2021

About ENERGY STAR for the Residential Sector

In the residential sector, EPA enables and accelerates the adoption of energy efficiency through its ENERGY STAR new construction and existing homes programs, initiatives, and resources.

ENERGY STAR New Construction Programs

ENERGY STAR partners with thousands of homebuilders and developers, manufactured housing plants, home energy rating companies, and utilities across the U.S. who construct, verify, promote, and incentivize ENERGY STAR certified homes and apartments. Single-family, multifamily, and manufactured (factory-built) homes are all eligible to earn the ENERGY STAR label when independently verified to meet the program's rigorous requirements for energy efficiency. These requirements are customized for each housing type and tailored to the specific climate where the home is built. Today, the nation's twenty largest homebuilders all construct ENERGY STAR certified homes. Over 2.2 million ENERGY STAR certified new homes and apartments have been built to-date, with more than 120,000 in 2020 alone. ENERGY STAR certified homes and apartments are at least 10% more energy efficient than those built to code and achieve a 20% improvement on average while providing homeowners and residents with better quality, performance, and comfort. EPA continues to advance its ENERGY STAR Residential New Construction Program requirements as more rigorous building energy codes are developed and adopted by States. Learn more.

Existing Homes Programs

ENERGY STAR offers free guidance and resources to educate and empower homeowners with unbiased information from experts about actions they can take to improve home energy efficiency. Consumers rely on ENERGY STAR as their trusted resource for practical information on saving energy, making use of popular online tools such as the ENERGY STAR Home Advisor and Home Energy Yardstick. In addition, programs such as Home Performance with ENERGY STAR and ENERGY STAR Verified HVAC Installation help homeowners find qualified home improvement contractors in their area that specialize in making homes more energy efficient and comfortable.

Program Savings

In 2019, the ENERGY STAR Residential New Construction program helped homeowners save 3 billion kilowatt-hours of electricity, avoid $410 million in energy costs, and achieve nearly 4 million metric tons of greenhouse gas reductions.

About ENERGY STAR® Homes – 2020

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Published April 2021

Spotlight on New ENERGY STAR Program Requirements for the Caribbean

EPA updated the single-family and multifamily program requirements for Puerto Rico and the US Virgin Islands to reflect the unique code requirements and construction practices in these locations. The tailored program will ensure that certified homes and apartments continue to offer meaningful improvements in efficiency, durability, and comfort. In addition, by addressing the needs of the local stakeholders, ENERGY STAR certified homes and apartments will continue to be supported by funding available through the US Department of Housing and Urban Development and other entities during the rebuilding efforts on the islands. .

Spotlight on: Multifamily New Construction

To better meet the needs of ENERGY STAR partners in the multifamily sector, EPA developed the ENERGY STAR Multifamily New Construction program, which provides a consistent specification for multifamily buildings of any height. The program features a blending of technical requirements and verification protocols from the previous high- and low-rise programs and ensures that common areas are always addressed in buildings earning the ENERGY STAR label. The new Multifamily New Construction program provides the needed flexibility for partners and program administrators, ensures that requirements are optimized for each project, and improves consistency with codes and market incentive programs.

For additional details about ENERGY STAR achievements see ENERGY STAR Impacts.
For ENERGY STAR facts and figures broken down geographically by state, see ENERGY STAR State Fact Sheets.
For achievements by ENERGY STAR Award Winners, see ENERGY STAR Award Winners Page.

About ENERGY STAR® Buildings – 2020

The simple choice for energy efficiency.

Published April 2021

About ENERGY STAR Buildings

Businesses embrace ENERGY STAR for the same reasons that consumers do: it's a widely recognized symbol of energy efficiency, translating technical details into simple, credible, and actionable information. ENERGY STAR tools and resources help businesses determine the most cost-effective approach to managing energy use in their buildings and plants—enabling the private sector to save energy, increase profits, and boost competitiveness. Thousands of diverse organizations across the nation—from Fortune 100® companies and major league sports teams to school districts and small businesses— have partnered with EPA to improve their facilities' energy performance.

Portfolio Manager and the 1 – 100 ENERGY STAR score

Commercial buildings have embraced EPA's energy measurement and tracking tool, ENERGY STAR Portfolio Manager. In fact, in 2020 alone more than 270,000 commercial properties used EPA's ENERGY STAR Portfolio Manager tool to measure and track their energy use, water use, and/or waste and materials. These buildings comprise more than 25 billion square feet of floorspace—more than a quarter of all the commercial floorspace in the nation. Owners of commercial buildings and industrial plants have also adopted EPA's 1 – 100 ENERGY STAR score as the industry standard for measuring energy performance. Over the past five years, the number of buildings actively using Portfolio Manager to benchmark their energy performance increased by more than 30%. The amount of commercial building square footage actively benchmarked grew by more than 40%.

The value of ENERGY STAR certification for buildings

In 2020 more than 6,400 buildings earned EPA's ENERGY STAR certification, bringing the total to close to 38,000. Buildings that earn the ENERGY STAR use, on average, 35% less energy than their peers. For commercial real estate, ENERGY STAR is a market differentiator. Real estate companies use EPA's 1 – 100 ENERGY STAR score to demonstrate their sustainability to investors through reporting frameworks such as the Global Real Estate Sustainability Benchmark (GRESB) and the Sustainability Accounting Standards Board (SASB). Multifamily property owners use it to access discounted financing through products offered by Fannie Mae, Freddie Mac, and the U.S. Department of Housing and Urban Development.

Program savings

In 2019, the ENERGY STAR program for commercial buildings helped businesses and organizations save 230 billion kilowatt-hours of electricity, avoid $14 billion in energy costs, and achieve 170 million metric tons of greenhouse gas reductions

About ENERGY STAR® Buildings – 2020

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Spotlight on: state and local benchmarking initiatives

As of the end of 2020, 34 local governments, three states, and one Canadian province rely on EPA's ENERGY STAR Portfolio Manager tool as the foundation for their building energy benchmarking requirements, creating uniformity for businesses and reducing transaction and implementation costs. Combined, these requirements apply to over 100,000 buildings, representing over 11 billion square feet.

Additional local governments and states have required ENERGY STAR Portfolio Manager in the benchmarking of their own facilities. Learn more.

Spotlight on: ENERGY STAR Tenant Space and Samsung

EPA launched ENERGY STAR Tenant Space in 2020, offering tenants an opportunity to receive recognition for energy efficient office spaces. This recognition requires that tenants meet energy efficient design criteria, and provides the opportunity for tenant-landlord collaboration around energy efficiency, leading to more efficient tenant spaces and a more efficient building as a whole.

Samsung Electronics is honored to be one of the first tenants to earn ENERGY STAR Tenant Space recognition for its office at 700 Pennsylvania Ave in Washington, DC. The Samsung Solutions Center opened in 2019 and serves as a multifunction office facility for Samsung employees. Achieving recognition for the space helps to drive awareness of ENERGY STAR among Samsung employees and the importance of Samsung's continued energy-efficiency efforts through its products and operations. According to Mark Newton, Samsung's head of Corporate Sustainability for North America, pursuing energy efficiency and recognition for leased spaces is of utmost importance to the company's energy management strategy. Samsung has identified the new Tenant Space recognition and whole building ENERGY STAR certification as critical elements in its preferred site selection criteria.

For additional details about ENERGY STAR achievements see ENERGY STAR Impacts.
For ENERGY STAR facts and figures broken down geographically by state, see ENERGY STAR State Fact Sheets.
For achievements by ENERGY STAR Award Winners, see the ENERGY STAR Award Winners Page.

About ENERGY STAR® Industrial – 2020

The simple choice for energy efficiency.

Published April 2021

About ENERGY STAR for Industrial Plants

American manufacturers have embraced ENERGY STAR to build successful energy programs, engage in and learn through its vibrant peer networks, and improve their facilities' energy performance. Hundreds of companies have deployed ENERGY STAR strategic energy management (SEM) resources, such as the Guidelines for Energy Management, to foster an organizational culture focused on continuous improvement of energy performance.

To help specific industrial sectors become more energy efficient, EPA has convened 33 "Industrial Sector Focuses" to foster collaboration and develop industry-specific tools and resources. These sectors span the U.S. economy—from cookie and cracker bakeries and pharmaceutical plants to integrated steel mills and petroleum refineries. Unique products of an Industrial Focus include a plant Energy Performance Indicator (see below) and an Energy Guide that documents effective energy efficiency measures for the sector. To date, 19 Energy Guides have been published.

Plants Achieve ENERGY STAR Certification and Reductions

Popular ENERGY STAR tools for the industrial sector include plant Energy Performance Indicators (EPIs), which quantitatively evaluate how energy-efficient a plant is and provide companies with the information they need to make smart investment decisions. EPA provides ENERGY STAR certification for 20 types of manufacturing plants, and 95 plants earned ENERGY STAR certification for superior energy performance in 2020.

In addition, 42 industrial plants achieved energy use intensity reductions in 2020 in the ENERGY STAR Challenge for Industry campaign, in which industrial sites commit to reducing their energy intensity by 10% within five years. Also, 183 plants registered baseline energy use intensity with the Challenge for Industry in 2020.

Program Savings

In 2019, the ENERGY STAR program for industrial plants helped businesses save 35 billion kilowatt-hours of electricity, avoid $2 billion in energy costs, and achieve 40 million metric tons of greenhouse gas reductions.

For additional details about ENERGY STAR achievements see ENERGY STAR Impacts.

Spotlight On: Nissan's Smyrna Assembly Plant

Nissan North America's Smyrna, Tennessee automobile assembly plant is over 6 million square feet and produces over 600,000 vehicles annually, making it one of the largest in North America. The plant contains two assembly lines that produce cars, SUVs, and electric vehicles.

About ENERGY STAR® Industrial – 2020

The simple choice for energy efficiency.

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Nissan's involvement with ENERGY STAR began with the Motor Vehicle Industrial Sector Focus. In 2006, the company became an ENERGY STAR Partner to demonstrate its commitment to energy management. Following ENERGY STAR guidance, Nissan established cross-functional energy management teams to identify energy performance improvement opportunities at its Smyrna Plant. Sub-metering to allow better measurement and management of plant energy loads was made an early priority. This allowed the energy team to investigate the energy use between shifts and on weekends when the plant was not running. In return, the Smyrna plant reduced energy use by almost 50% by turning off plant equipment and lighting when not needed. Nissan has continued to identify opportunities to save energy through both equipment upgrades and better operating practices.

Through these efforts, the Smyrna plant has distinguished itself as one of the most energy-efficient automobile assembly plants in the U.S. and Canada by earning ENERGY STAR certification for 13 years in a row since 2006.

For additional details about ENERGY STAR achievements see ENERGY STAR Impacts.
For ENERGY STAR facts and figures broken down geographically by state, see ENERGY STAR State Fact Sheets.
For achievements by ENERGY STAR Award Winners, see the ENERGY STAR Award Winners Page.