What are Building Shell Upgrades?

If your apartment building recently received or soon will receive a building shell upgrade, this fact sheet is for you! In collaboration with housing providers around the country, Stewards of Affordable Housing for the Future (SAHF) developed this resource to help you and other residents understand the various benefits that can result from building shell upgrades.

The shell of a building is the spaces or physical features that separate the interior from the outside environment, such as your walls, ceiling, flooring, and roof. Upgrades to your building shell can include any of the following:

- Caulking and sealing of cracks and openings
- Insulation to reduce heat loss or gain
- Cool roof (painting the roof white to reflect heat)
- Improvements to windows and doors

These upgrades can provide a more sustainable and healthier home for you to live in.

The Benefits of Energy Efficiency

Energy efficiency is good for your home, community, and the environment. SAHF’s research has uncovered 48 distinct benefits of energy efficiency improvements. There are seven different categories of building upgrades: building shell, HVAC, hot water, water, lighting, appliances, and renewables. Each of which can have benefits in five broad categories: financial, health and safety, comfort, education and learning, and social and resiliency benefits.

This fact sheet lists some key benefits associated with the building shell upgrades that you recently received or soon will receive for your home.

Financial Benefits

Poor insulation and drafty windows can cost you a lot of money over the long term, especially if you cool or heat your home often. Building shell upgrades can lead to utility bill savings and reduced exposure to weather-related bill spikes and other rate increases.

Health & Safety Benefits

Based on SAHF’s study, building shell upgrades can be beneficial to your wallet and improve your health. Old insulation can introduce unwanted indoor pollution, openings, and moisture, which provide the ideal conditions for pests and mold. Adding new insulation, improving windows, and sealing gaps inside and outside your home helps improve your indoor air quality. This can reduce asthma triggers, respiratory problems, and allergens, and even save you a trip to emergency room.

Comfort Benefits

When everything is properly sealed and well-insulated, you can expect your home to maintain a stable and comfortable temperature due to less draft or heat loss. Improvements to your building shell can lead to less outside noise entering your home.

Social & Building Resiliency Benefits

Building shell upgrades also mean your AC and heater will not need to work as hard, which means less wasted energy. A win-win situation for you and the environment. If your power goes off, your home will stay cooled or heated longer due to the better insulation and energy-efficient windows.

Did you know?

Need more information or tips on how to make your home more sustainable?

Contact your property manager or visit ENERGY STAR’s website at https://bit.ly/3w4cKcx
HVAC Repair, replacement, or installation of heating and/or cooling systems (e.g., furnace, window or central AC unit)

Air filter installation

Cleaning and sealing of ductwork

Programmable or smart thermostats

If your apartment building recently received or soon will receive a HVAC upgrade, this fact sheet is for you! In collaboration with housing providers around the country, Stewards of Affordable Housing for the Future (SAHF) developed this resource to help you and other residents understand the various benefits that can result from HVAC upgrades.

HVAC refers to your heating, ventilation, and air conditioning systems. They are designed to improve your home comfort and maintain good indoor air quality through proper ventilation and filtration. Upgrades to your HVAC system can include any of the following:

- Repair, replacement, or installation of heating and/or cooling systems (e.g., furnace, window or central AC unit)
- Air filter installation
- Cleaning and sealing of ductwork
- Programmable or smart thermostats

These upgrades can provide a more sustainable and healthier home for you to live in.

The Benefits of Energy Efficiency

Energy efficiency is good for your home, community, and the environment. SAHF's research has uncovered 48 distinct benefits of energy efficiency improvements. There are seven different categories of building upgrades: building shell, HVAC, hot water, water, lighting, appliances, and renewables. Each of which can have benefits in five broad categories: financial, health and safety, comfort, education and learning, and social and resiliency benefits.

This fact sheet lists some key benefits associated with the HVAC upgrades that you recently received or soon will receive for your home.

Financial Benefits

Older, less energy efficient HVAC system can cost you a lot of money over the long term, especially if you cool or heat your home often. HVAC upgrades allow you to keep cooling or heating your home as you normally would, even on a tight budget. They can lead to utility bill savings and reduced exposure to weather-related bill spikes and other rate increases.

Health & Safety Benefits

Turning on your efficient HVAC system more regularly can have a positive impact on your health without hurting your wallet. The improved ventilation and filtration replaces your indoor air with a constant supply of fresh air. This can help reduce asthma triggers, respiratory problems, and allergens, and possibly save you a trip to the emergency room. Ventilation also helps control humidity, which can reduce the occurrence of certain viruses, mold, and pests that thrive in humid conditions.

Comfort Benefits

When your system is upgraded and properly programmed, your home will maintain a stable and comfortable temperature and humidity level that are right for you. The improvements can also mean fewer maintenance visits to repair your broken heater or AC.

Education & Learning Benefits

HVAC systems bring in fresh, filtered air, and clear out indoor pollution from your home. It is well-established that good ventilation leads to clearer thinking, making your home a better environment for focus and productivity.

Did you know?

What are HVAC Upgrades?

The Benefits of Energy Efficiency

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Domestic Hot Water

What are Domestic Hot Water Upgrades?

If your apartment building recently received or soon will receive a domestic hot water (DHW) upgrade, this fact sheet is for you! In collaboration with housing providers around the country, Stewards of Affordable Housing for the Future (SAHF) developed this resource to help you and other residents understand the various benefits that can result from DHW upgrades.

DHW is a set of equipment that heats up the water you use in your home. You typically do not see where the hot water is produced, but the actual system can be found inside of a utility closet within your home or in a boiler room somewhere in the building. Upgrades to your DHW system can include any of the following:

- Replacement of hot water heater (e.g., tank-style, tankless, central boiler system)
- Boiler controls
- Improvements to distribution pipes (including insulation)

These upgrades can provide a more sustainable and healthier home for you to live in.

The Benefits of Energy Efficiency

Energy efficiency is good for your home, community, and the environment. SAHF’s research has uncovered 48 distinct benefits of energy efficiency improvements. There are seven different categories of building upgrades: building shell, HVAC, hot water, water, lighting, appliances, and renewables. Each of which can have benefits in five broad categories: financial, health and safety, comfort, education and learning, and social and resiliency benefits.

This fact sheet lists some key benefits associated with the hot water upgrades that you recently received or soon will receive for your home.

Did you know?

Financial Benefits

Old and inefficient systems that heat your water use more energy and cost you a lot of money over the long term, especially if you use hot water often. DHW upgrades can lead to utility bill savings and reduced exposure to weather-related bill spikes and other rate increases.

Health & Safety Benefits

A reliable hot water heater along with the right control settings will reduce situations where you are exposed to scalding hot water that come out of your faucets and showerheads.

Comfort Benefits

When you have a properly-installed and functional hot water system, you will experience more consistent operations and less wait time. Your hot water should turn on when you need it to. This can all contribute to your overall comfort in your home.

Social & Building Resiliency Benefits

DHW upgrades also mean your system will not need to work as hard, which means less wasted energy. A win-win situation for you and the environment.

Need more information or tips on how to make your home more sustainable?
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Lighting

What are Lighting Upgrades?

If your apartment building recently received or soon will receive a lighting upgrade, this fact sheet is for you! In collaboration with housing providers around the country, Stewards of Affordable Housing for the Future (SAHF) developed this resource to help you and other residents understand the various benefits that can result from lighting upgrades.

The energy efficiency solution you probably hear about most is a light-emitting diode (LED) light bulb because it provides good light quality, requires little effort to install, and lasts a long time. This light bulb technology has evolved over time. You can now get a wider range of color and brightness with a LED light bulb while using only a fraction of energy required by the traditional incandescent light bulb (60W) that most people are used to. Your lighting upgrades can include any of the following:

- Replace with LED or smart LED light bulbs
- Lighting fixtures
- Lighting controls (including wall switches)

These upgrades can provide a more sustainable and healthier home for you to live in.

Did you know?

**Financial Benefits**

Upgrading to LED light bulbs is one of the easiest and most affordable ways to save you a lot of money over the long term, especially if you have your lights on regularly. If you consider all the light bulbs in your home, those savings on your utility bills can add up fast. With a simple light bulb swap, you can turn your lights on as you normally would, and save some money.

**Health & Safety Benefits**

Lighting upgrades can be beneficial to not only your wallet but your health as well. Manufacturers now offer a wide range of options to choose from, with different bulb shapes, brightness, and color. With all these options, choosing the right light bulb can support your health and well being. Lighting quality has been linked to reduced headaches and improved mental health. The distribution of lighting in your home and property can also reduce trips and falls.

**Comfort Benefits**

Better lighting distribution and quality can make the different spaces within your home feel more comfortable. Some LED light bulbs provide you with greater control over the brightness and/or color using your smartphone or by hitting the switch. Since LED lighting last longer than a traditional incandescent bulb, you or your maintenance staff person may not need to replace your lights as often.

**Education & Learning Benefits**

Adequate and quality lighting can be beneficial for both children and adults, such as improved ability to read and do homework and increased productivity.

The Benefits of Energy Efficiency

Energy efficiency is good for your home, community, and the environment. SAHF’s research has uncovered 48 distinct benefits of energy efficiency improvements. There are seven different categories of building upgrades: building shell, HVAC, hot water, water, lighting, appliances, and renewables. Each of which can have benefits in five broad categories: financial, health and safety, comfort, education and learning, and social and resiliency benefits.

This fact sheet lists some key benefits associated with the lighting upgrades that you recently received or soon will receive for your home.

Need more information or tips on how to make your home more sustainable?

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Renewable Energy

What is Renewable Energy?

If your apartment building recently received or soon will receive a renewable energy upgrade, this fact sheet is for you! In collaboration with housing providers around the country, Stewards of Affordable Housing for the Future (SAHF) developed this resource to help you and other residents understand the various benefits that can result from renewable energy upgrades.

Renewable energy upgrades take advantage of a free resource, the sun, to power your community spaces and even your homes in certain situations. Renewable energy upgrades to your building can include any of the following:
- Solar photovoltaic panels to generate electricity
- Solar thermal panels to heat water

These upgrades can provide a more sustainable and healthier home for you to live in.

The Benefits of Energy Efficiency

Energy efficiency is good for your home, community, and the environment. SAHF's research has uncovered 48 distinct benefits of energy efficiency improvements. There are seven different categories of building upgrades: building shell, HVAC, hot water, water, lighting, appliances, and renewables. Each of which can have benefits in five broad categories: financial, health and safety, comfort, education and learning, and social and resiliency benefits.

This fact sheet lists some key benefits associated with the renewable energy upgrades that you recently received or soon will receive for your home. When renewable energy upgrades are combined with a suite of energy efficiency upgrades, the benefits to you and other residents increases tremendously.

Did you know?

Financial Benefits

Building Owner
Traditionally, the electricity generated from the solar panels installed on top of your building end up powering the community spaces, such as the office, community room, and hallways. For you and other residents, solar panels enables the owner keep the building affordable. Utility costs is one of the biggest expenses for property operations. Lowering utility expenses with solar means more funds for other upgrades and services on site.

Resident
With renewable energy, the electricity can be generated either on the top of your apartment building or in some situations, your home could be powered by renewable energy generated from within your community - also known as community solar. In some regions, there are programs in place that can provide low- to no-cost solar subscriptions to low-income community members. That translates to lower utility bills or none at all for you and other residents.

Social & Building Resiliency Benefits

Renewable energy also translates to increased energy security. Your building will have access to reliable and affordable clean energy. A win-win situation for you and the environment. If your power goes off during a storm or due to a utility outage, your building and/or home may be able to generate enough electricity to power critical equipment and charge your essential devices.

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