

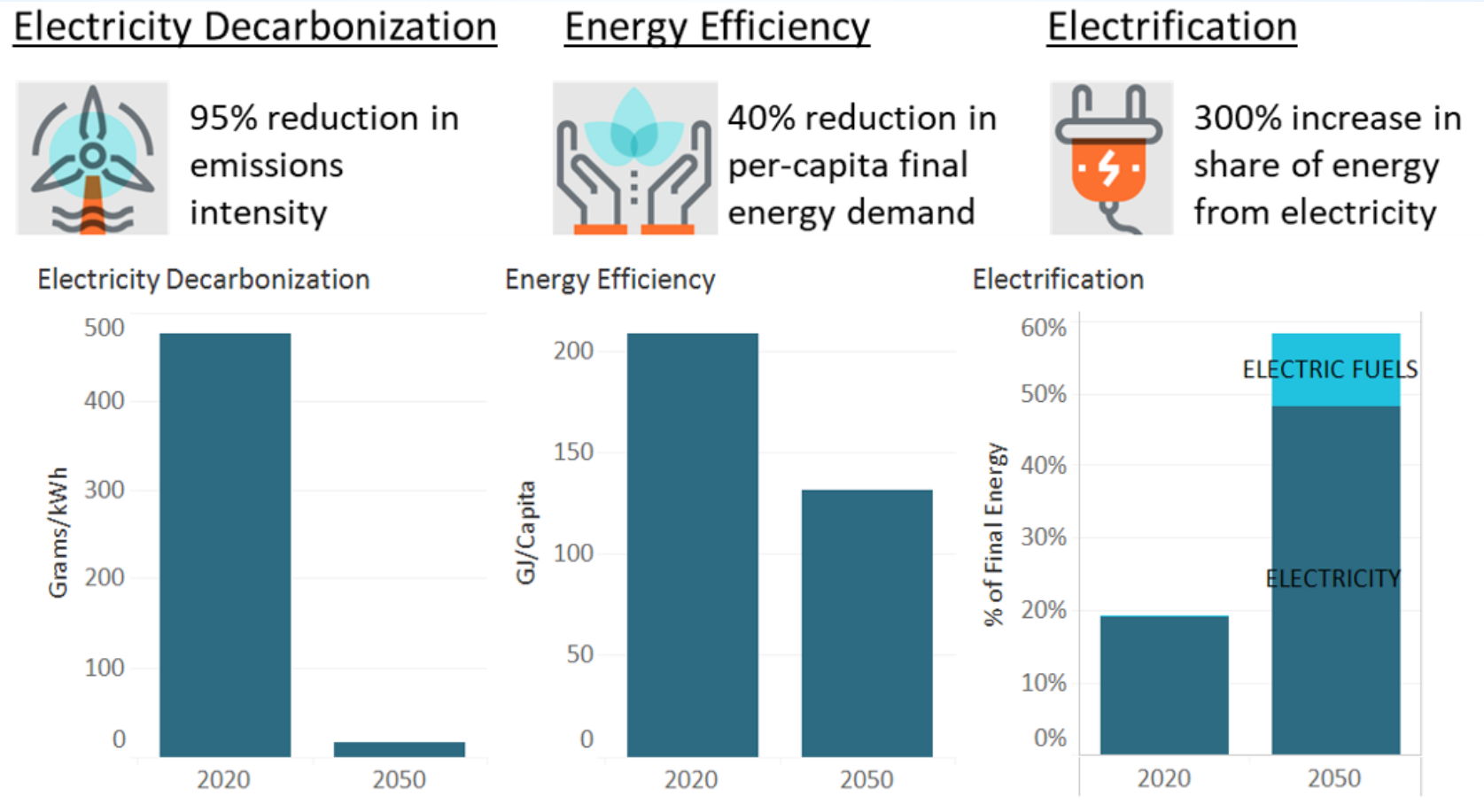


Commercial NextGen™ Proposal

Presentation to Real Estate
Roundtable SPAC

January 25, 2023

Net-Zero Economy by 2050 Requires 3 Interdependent Pathways



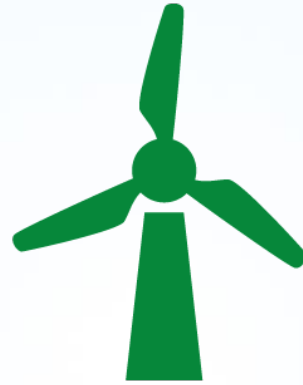
Objectives of NextGen Certification for Buildings

- Continue to encourage greater efficiency of commercial and multifamily buildings
- Recognize role buildings play in renewable energy investments
- Reward transition to efficient electrification
- Strive to keep it simple
- Leverage foundation of ENERGY STAR and Portfolio Manager

Proposed Criteria



Efficiency
ENERGY STAR
certification



Renewable Energy
Procure 30% of
energy from
renewable sources



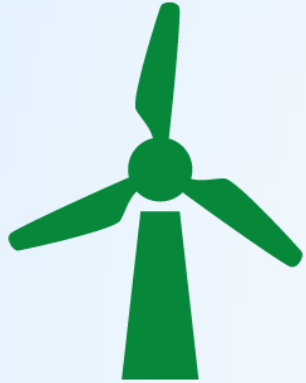
Electrification
Meet target for
onsite GHG
emissions

Energy Efficiency Criterion



- Requirement: ENERGY STAR certification
- Why?
 - Ensures energy efficiency
 - Well-understood and accepted
 - Includes review of building data and verification
 - Leverages existing ENERGY STAR infrastructure
 - Can easily increase stringency over time
- Consideration
 - Restricts NextGen recognition to buildings eligible for ENERGY STAR certification

Renewable Energy Criterion



- Requirement: 30% of total energy use from renewable sources
 - Sources can include onsite renewable generation, renewable electricity certificates (RECs), renewable fuels, and/or renewable thermal certificates.
 - Total amount of RECs cannot exceed amount of electricity consumed
 - Does not credit renewables that contribute to standard grid electricity.
- Why?
 - Motivates buildings to procure renewable energy
 - Does not penalize for lack of renewables on grid
 - Single, national requirement keeps it simple
- Considerations
 - Does not account for low carbon grid
 - Requires better tracking in Portfolio Manager

Electrification Criterion



- Requirement: Direct emissions limit (direct = onsite emissions in Portfolio Manager terminology)
- Why?
 - The lower the direct GHG emissions, the more of a building's energy needs are met through electricity
 - Electrification is crucial to achieving net-zero emissions across the economy
- Considerations
 - Fuels such as natural gas are predominantly used for space and water heating, so more is needed in cold climates for occupant comfort and safety
 - Multifamily and other residential buildings need to use fuel throughout the day/have greater hot water and cooking needs
 - EPA determined that normalization for climate/weather and building type is necessary

Normalizing Direct Emissions

- Heating Degree Days (HDD) measure the need for heating and are specific to a building's location
- EPA analyzed data from ENERGY STAR certified buildings (excluding 100% electric buildings) to determine the median direct GHGi per HDD for each type of building
- The medians are relatively consistent across regions
- These medians – or “NextGen Emissions Factors” -- can be used to normalize the NextGen direct emissions targets

| Proposed Factors for Calculating NextGen Targets | |
|--|--|
| Property Type | Proposed GHGi Factor (g CO ₂ e/ft ² /HDD) |
| Data Center | 0.15 |
| Retail Store | 0.14 |
| Warehouse | 0.18 |
| Office (incl. Office, Bank, Courthouse, Financial) | 0.25 |
| K-12 School | 0.22 |
| Worship Facility | 0.25 |
| Medical Office | 0.24 |
| Senior Living Community | 0.46 |
| Hotel | 0.43 |
| Multifamily Housing | 0.29 |
| Supermarket/Grocery Store | 0.49 |
| Hospital (General Medical & Surgical) | 1.25 |

Determining if a Building Meets Electrification/Emissions Criterion

- Steps in Portfolio Manager:
 - 1) Calculate the building's unique NextGen Target:
NextGen Emissions Factor x Actual HDD over the past 12 months
 - 2) Compare the NextGen Target to building's actual annualized direct GHGi
 - 3) If the building's actual direct GHGi is \leq its NextGen Target, the building has met the requirement
- EPA will publish the NextGen Factors for each building type
- Portfolio Manager will show monthly progress toward NextGen Target
- 100% electric buildings have zero direct GHG emissions and would always meet this criterion

Example NextGen (Direct Emissions) Target Calculations

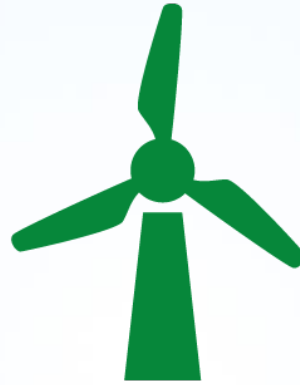
| Example ENERGY STAR NextGen Target Calculations | | | | |
|---|-----------|------------|------------------|----------------------|
| | Office DC | Office NYC | Retail Store NYC | Retail Store Atlanta |
| Factor (g CO ₂ e/ft ² /HDD) | 0.25 | 0.25 | 0.14 | 0.14 |
| Experienced Weather (actual HDD for prior 12 months) | 3620 | 4147 | 4147 | 2682 |
| Building's NextGen Target (kg CO ₂ e/ft ²) | 0.91 | 1.04 | 0.58 | 0.38 |

Summary of Proposed Criteria



Efficiency

Achieve ENERGY STAR certification



Renewable Energy

Procure 30% of total energy from renewable sources



Electrification/Emissions

Meet NextGen (direct emissions) Target

Administering NextGen Certification

- Can it be done through Portfolio Manager?
 - Yes, for ENERGY STAR/score
 - Yes, for renewable energy, but need additional functionality
 - Yes, for GHGi and HDD, but need to calculate Target
- Functionality needed (in Portfolio Manager or outside of the tool)
 - More robust RE tracking
 - Renewable fuel/RTC tracking and percent metric
 - GHGi/HDD tracking and metric(s)
 - Application and processing

Next Steps

January 31, 2023:

Webinar

- Register at energystar.gov/NextGenBuildings

Formal proposal and request for comments

- Read at energystar.gov/NextGenBuildings

Comment period opens

- Submit comments at energystar.gov/NextGenBuildings

March 2, 2023:

Comment period closes

Launch by 2024!

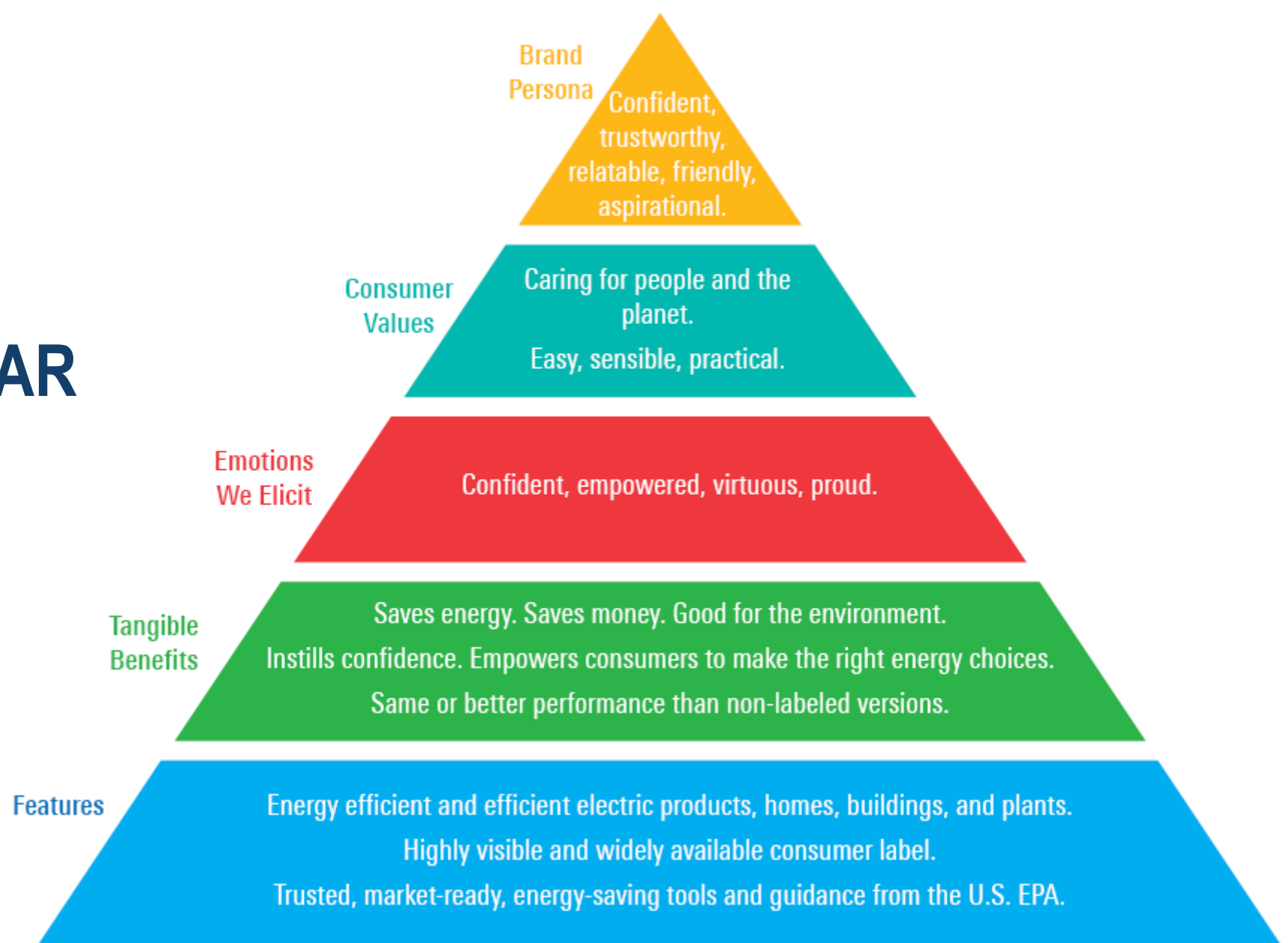


NextGen

CERTIFIED BUILDING | 2024



The ENERGY STAR Brand Pyramid



Evolving the ENERGY STAR Brand

1. The core principles of the ENERGY STAR brand are not changing:

Saves energy | Saves money | Good for the environment | No tradeoffs

2. We are evolving the definition of “good for the environment.” The new definition is *energy efficient and supportive of clean energy*.
3. The timing for this evolution will depend on the sector.



NextGen

CERTIFIED BUILDING | 2024



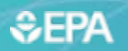
NextGen

CERTIFIED HOME



NextGen

CERTIFIED APARTMENT



ENERGY STAR. The simple choice for energy efficiency.





2024 CERTIFIED BUILDING

The top 25% of commercial building energy performance.



NextGen

CERTIFIED BUILDING | 2024

EMPOWERING A CLEAN ENERGY FUTURE

1. Meets the requirements for ENERGY STAR certification
2. Incorporates the next generation of products and practices needed to help America meet its environmental goals.

Positioning and Messaging

ENERGY STAR NextGen Certified buildings are America's most energy-efficient low-carbon commercial buildings.

NextGen certified buildings are independently verified to perform among the top quartile of similar buildings nationwide in terms of energy efficiency, while also meeting EPA's strict criteria for carbon emissions.

ENERGY STAR NextGen certification is available to buildings that:

1. Demonstrate superior energy efficiency (better than 75% of similar buildings nationwide),
2. Demonstrate low GHG emissions, and
3. Get at least 30% of their total energy use from renewable sources.



QUESTIONS?