



UNLOCKING THE BENEFITS OF BUILDING PERFORMANCE IN MIAMI-DADE: BUILDING EFFICIENCY 305 PROGRAM

WHY BUILDING PERFORMANCE MATTERS IN MIAMI-DADE

Buildings play a large role in Miami-Dade County's resilience efforts. On average, buildings waste 30 percent of the energy and water they consume due to inefficient equipment and operations. They are also the second greatest source of climate pollution in the County. Miami-Dade County launched its Building Efficiency 305 (BE 305) Program to improve water and energy efficiency in large, existing private and public buildings.

Buildings account for
37%
of community-wide air
pollution



BUILDING EFFICIENCY 305 (BE 305) PROGRAM

Building Efficiency 305 is an initiative of Miami-Dade County that seeks to promote improvements in building performance through a suite of policies and programs that increase energy and water efficiency in large, existing private and public buildings. The initiative is composed of a variety of strategies including:

- Local governments leading by example
- Facilitating financing mechanisms
- Enhancing building performance through building code compliance education and assessment
- Evaluating and establishing building performance policies including required annual benchmarking and data sharing
- Facilitating community trainings and other educational opportunities focused on improving building performance

GOALS OF BUILDING EFFICIENCY 305 PROGRAM



Reduce operating costs for property owners
through building efficiency



Assist our most vulnerable neighbors by reducing
utility cost burdens



Expand access to financing tools for efficiency
improvements



Improve building efficiency through building code training
and education



Increase awareness of building efficiency and data-driven
decision making



Reduce water supply constraints and preserve this critical
natural resource

HOW BUILDING EFFICIENCY AND BE305 PROGRAM BENEFIT MIAMI-DADE

Building efficiency measures align with the County's vision to create jobs, enhance economic productivity, reduce residential utility burden among low-income residents, bolster healthy and resilient communities, and initiate progress toward the County's resiliency goal. Nationwide, leading cities and counties are embracing building efficiency as a best practice to save money, reduce waste, and reduce air pollution and future climate change impacts. Increasing efficiency also helps reduce pressure on electricity grids and water systems during peak hours of demand.



PREVENT
0.2 - 1
million metric
tons of air
pollution



SAVE
\$37 - 112
million in
energy and
water bills



REDUCE
61
million gallons
of water
consumption

- **OUR COMMUNITY** | Focusing on building performance helps create and support jobs for local contractors, engineers, and other building professionals, produces more economic activity, expands free market solution opportunities for investments in water and energy efficiency, reduces air pollution, preserves critical water resources, and reduces tenant utility costs.
- **BUILDING OWNERS & MANAGERS** | By tracking their energy and water use, building owners and managers can use data to identify opportunities to improve their building's performance, enhance building value, and save operating dollars. Higher-efficiency properties achieve higher rental prices, sales prices, and occupancy rates than less-efficient properties.
- **UTILITIES AND POLICYMAKERS** | Policymakers and utilities can better identify and develop strategic policies, programs, and financial tools to address those areas of the market with the greatest opportunities for energy and water savings.

ONGOING BE 305 PROGRAM COMMUNITY INPUT AND PILOT PROJECT

Over the past two years, the County has engaged with hundreds of stakeholders to discuss BE 305 and request input on shaping energy and water efficiency programs and potential building performance policies. Through community meetings and a five-month series of meetings with a Working Group of high-level professionals and company representatives from different building-related sectors and industries, utilities, and municipalities, the County has developed a building performance policy tailored to our community. The County continues to engage and seek input from community stakeholder organizations and building owners and managers.

MDC has a pilot project underway with Florida Power and Light (FPL) to develop protocols and processes for providing whole building energy performance data to owners of multi-tenant and/or multi-owner buildings. Miami-Dade Water and Sewer Department has also been working closely with the BE305 program and will make whole building water performance data available to building owners and managers.

PROPOSED BE305 BUILDING PERFORMANCE ORDINANCE FRAMEWORK

The Miami-Dade Building Performance Ordinance will require existing private sector buildings and government buildings over 20,000 sq. ft. to annually track, report, and share their electricity and water use data through a free federal online tool. This is an easy and user-friendly process that takes, on average, less than ten hours every year. Such data can be used by building owners, managers, and tenants to make informed investment decisions. The ordinance will also require periodic building retuning and audits.

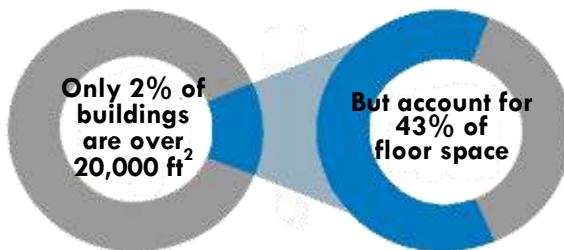
Focusing on the largest buildings will allow the county to engage and provide support to a relatively small portion of buildings while maximizing impact of the policy. In Miami-Dade, the largest buildings (those 20,000 square feet and up) comprise 43% (1,080 million square feet) of the county's total floor space, but only make up 2% of the buildings by number (10,778 buildings).

COVERED BUILDINGS

1. Public & Private
2. >20,000 sq. ft.
3. Five or more units
4. Multifamily residential & Non-residential

A threshold of 20,000 square feet would include:

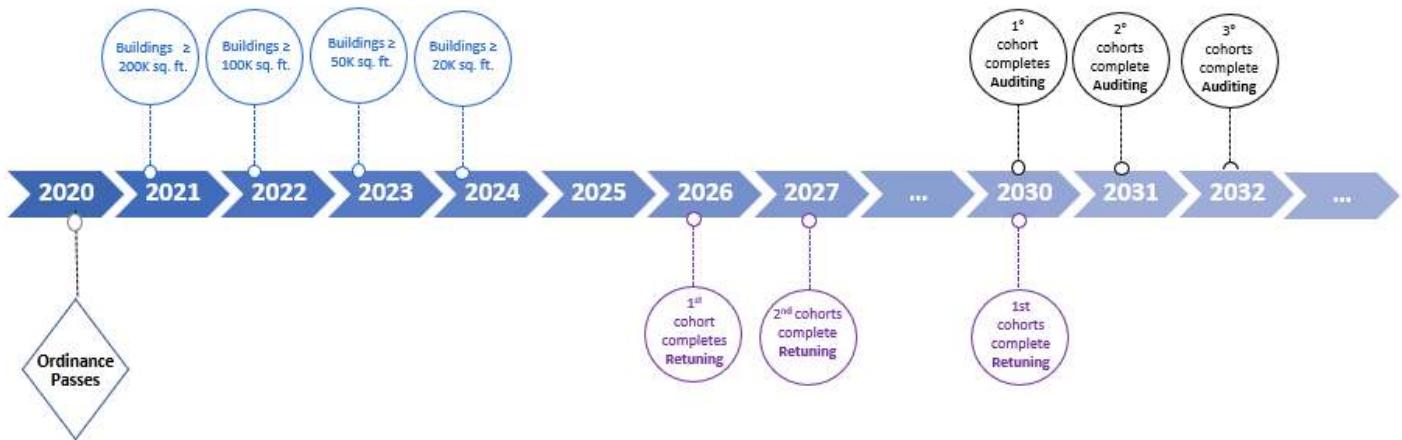
- 12,265 buildings
- 43% of the County's building stock



LARGE BUILDINGS REPRESENT THE GREATEST OPPORTUNITY FOR SAVINGS IN MIAMI-DADE COUNTY

PROPOSED ORDINANCE PHASE-IN SCHEDULE

The policy will roll out over many years to give building owners and managers ample time to integrate benchmarking into their regular building management practices and spread out the implementation efforts by county staff.



Current Elements of the Proposed Building Performance Ordinance

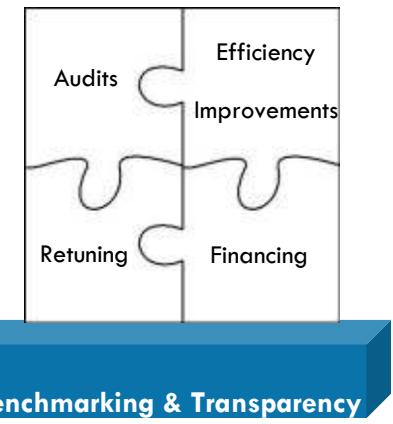
Who	Buildings 20,000-49,999 sq ft	Buildings 50,000 sq ft or larger	Buildings 10 years or older, 50,000 sq ft or larger, located in UMSA
What	Benchmarking energy and water	<ol style="list-style-type: none"> 1. Benchmarking energy and water 2. Voluntary Retuning 3. Voluntary Auditing 	Recertification
When	Every year, starting 3 years after the policy approval	<ol style="list-style-type: none"> 1. Yearly 2. Every 5 years 3. Every 10 years 	Every 10 years
Tool	Energy Star Portfolio Manager, a free tool	<ol style="list-style-type: none"> 1. Portfolio Manager 2. Independent accredited Professional performs retuning and submits a report 3. Independent accredited auditor performs audit and submits a report 	Independent accredited professional verifies systems are in compliance with code under which building was built

Lead Implementer	Miami-Dade County Department of Regulatory and Economic Resources
Sectors Affected	Multifamily residential and non-residential existing public and private sector buildings, and multi-tenant buildings. It excludes single family, duplex, triplex, and fourplex residential homes or other residential buildings with less than 5 units are exempt; industrial buildings are also excluded. See also "Exemptions" below.
Jurisdictional Scope	County-wide, including local agencies of the state (municipalities); State and Federal owned buildings are not covered but are welcome to participate voluntarily.
Size Threshold	20,000 square feet and above for benchmarking; 50,000 square feet and above for retuning, auditing, and re-certification.
Phasing	Phasing in by square footage thresholds.
Required Building Performance Strategies	Annual energy and water benchmarking and data sharing, with a recertification for buildings that are 10 years or older and are located in UMSA.
Voluntary Building Performance Strategies	Retuning once every five years and audits once every ten years.
Exemptions	Properties that have been occupied or receiving water and/or electricity for less than 12 months, are under financial hardship, vacancy of 50% or more, awaiting demolition, and other specific situations.
Transparency Approach	The Director will publish reports with statistics for all available covered properties, including compliance rates, accuracy and issues affecting accuracy, summary energy and water consumption statistics, and trends observed, on a publicly accessible website.
Enforcement	<p>Written warning for failure to submit a report by deadline.</p> <p>Benchmarking: If a report is not submitted within 30 days of the warning, the property shall incur a fine of up to \$500. After 90 days of noncompliance, the fee shall increase by \$500 at that time and every 3 months thereafter.</p> <p>Re-certification: If a report is not submitted within 180 days of the warning, the property shall incur a fine dependent on the size of the property. After 360 days of noncompliance, the fee shall increase. The fine for intentionally submitting a false or incomplete report is \$1,000/year.</p>
Schedule	Properties would begin benchmarking in 2021. Reporting deadlines will be staggered by one year depending on size, starting with the largest properties. Data will be made transparent one year after the first reporting deadline.

BEST PRACTICES AND NATIONAL EXAMPLES

You can't manage what you don't measure. A key element to improving building performance is understanding a building's energy and water use and thus the potential to cut waste and realize cost savings. Strategies include:

1. **Benchmarking & Transparency** | Tracking a building's energy and water use, comparing it to the average of similar buildings, and sharing this information, just as miles-per-gallon (MPG) is used to compare efficiency between cars.
2. **Retuning** | Similar to a car tune-up, where basic systems are tuned with no-cost or low-cost minor repairs and adjustments that have a payback of 3 years or less, so that buildings operate and function as designed.
3. **Audits** | Whole-building performance evaluation to identify and prioritize improvements.
4. **Financing** | Energy efficiency loans, performance contracts, grants, and PACE programs.
5. **Efficiency Improvements** | Optional upgrades and investments to building facilities and operations that reduce energy and water usage and have a payback of more than three years.



Across the U.S., one county and thirty-one cities, including Atlanta, Chicago, New York City, and Los Angeles, already have building performance laws. These laws all require regular tracking and sharing of building energy and water use data for both public and privately-owned buildings. Almost half have policies that require additional actions, like periodic audits or retuning. Nine additional communities are in the process of crafting similar building performance policies.

Benchmarking, Transparency, and Beyond

