City of Lake Worth Beach FLORIDA

&

drops+watts

Drops and Watts: Energy and Water Conservation Audits



Energy and water are essential resources in our daily lives. However, unnecessary consumption can lead to:

- Higher utility costs
- Increased pressure on natural resources
- Greater environmental impact
- Unnecessary waste

A conservation audit helps us understand where resources are being used and where we can reduce waste.



What Is a Conservation Audit?

A conservation audit is a systematic review of how much energy and water a building or facility uses.
The purpose is to:

- Identify areas of excessive consumption
- Find leaks and inefficient equipment
- Understand usage patterns
- Recommend practical improvements
- Reduce costs and environmental impacts

- Think of it as a check-up for a building's resource use.

The “Drops” in Water Conservation

Water conservation focuses on reducing unnecessary water use.

Water Audit

- Leaking faucets and pipes
- Running toilets
- Excessive irrigation
- Inefficient showerheads and faucets
- Water wasted during cleaning
- Unnecessary outdoor water use

Every drop matters!
A small leak may seem insignificant, but continuous leaks can waste large amounts of water over time.

The “Watts” in Energy Conservation

Energy conservation focuses on using electricity and other forms of energy efficiently.

- Lighting
- Air conditioning and heating
- Appliances and equipment
- Computers and electronics
- Building insulation
- Doors and windows
- Operating schedules



The goal is not simply to use less energy. It is to help the customer take their consumption into their own hands

How Do We Conduct an Audit?

Step 1: Collect Data

- Interview with customer, review utility bills, meter readings, equipment information, and historic consumption data.

Step 2: Inspect the Building

- Look for leaks, inefficient equipment, and unnecessary energy use.

Step 3: Measure

- Use water meters, electrical meters, or other monitoring tools when available.

Step 4: Identify Problems

- Compare actual consumption with expected or efficient usage.

Step 5: Recommend Solutions

- Develop practical actions that can reduce water and energy consumption.

Step 6: Monitor Results

- Track usage after improvements to determine whether conservation efforts are working.

Common Conservation Opportunities

Water

- Repair leaks promptly
- Install low-flow fixtures
- Improve irrigation schedules
- Use water-efficient appliances
- Avoid unnecessary running water

Energy

- Replace inefficient bulbs with LEDs
- Turn off unused equipment
- Use programmable thermostats
- Maintain HVAC systems
- Improve insulation and reduce air leakage

Many conservation improvements can be simple and inexpensive.



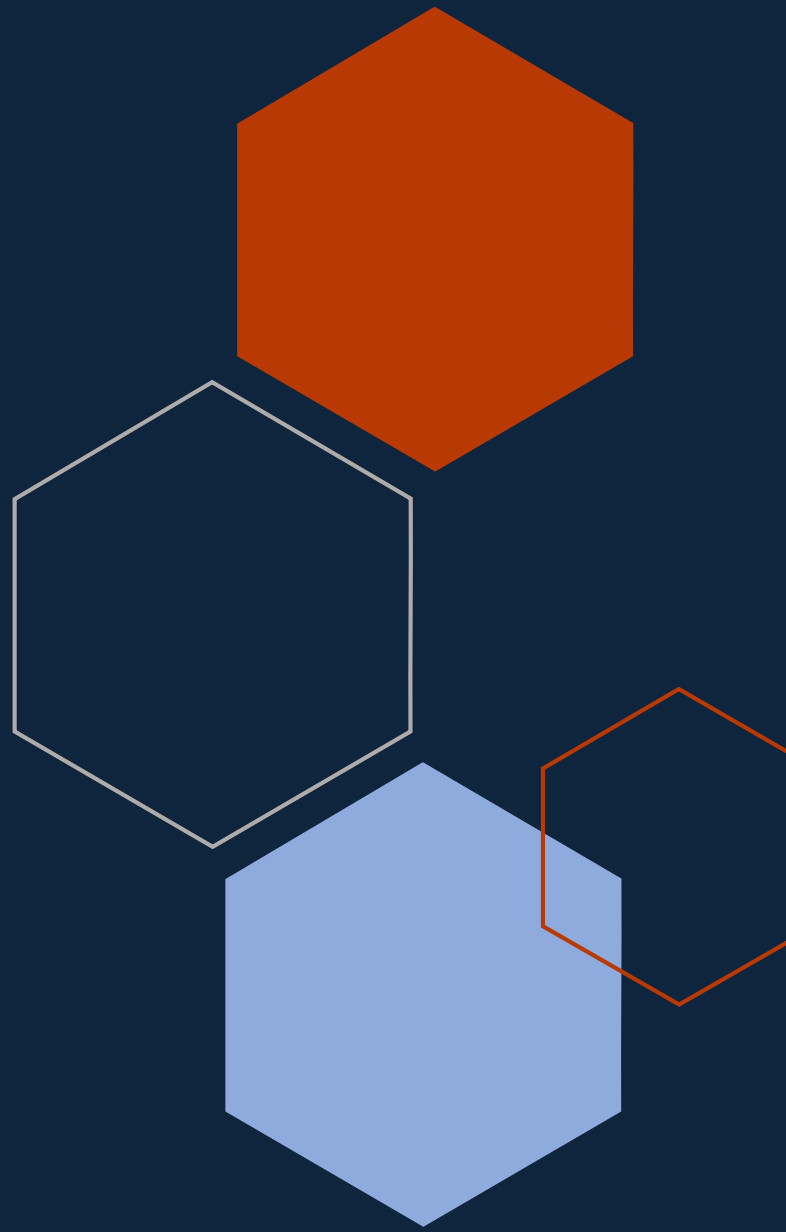
Conservation through Education is Everyday Life.

Save Water

- Turn off the faucet while brushing your teeth.
- Take shorter showers.
- Report leaks.
- Only run dishwashers and washing machines with full loads.
- Water plants when needed rather than on a fixed schedule.

Save Energy

- Turn off lights when leaving a room.
- Unplug equipment when appropriate.
- Use natural light when possible.
- Keep doors and windows closed when heating or cooling.
- Choose energy-efficient equipment.



Our Conservation Goal

To provide the customer with opportunities
to reduce consumption through:

- **Management**
- **Conservation**
- **Efficiency**

Water and Energy conservation is not just the responsibility of facility managers or engineers.

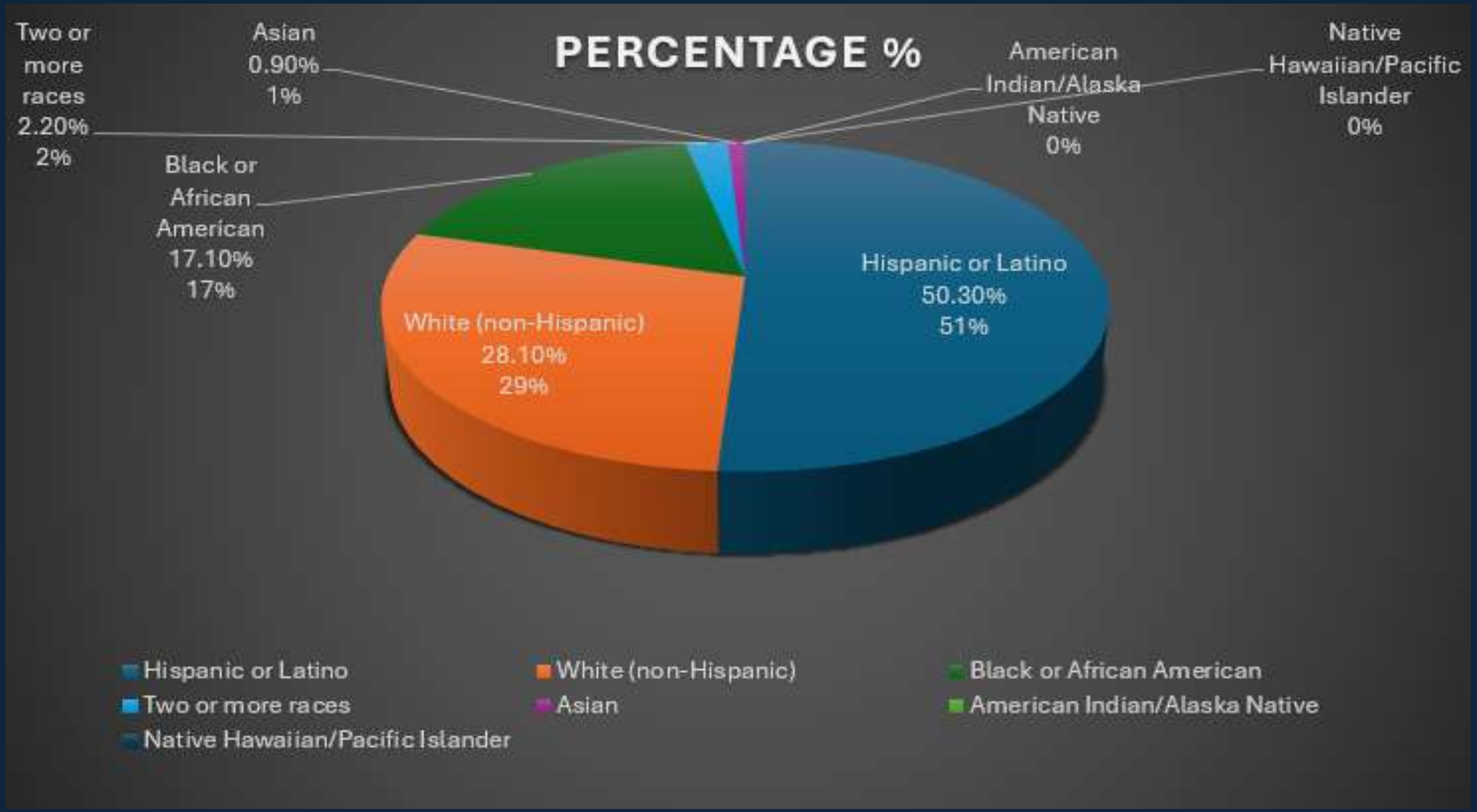
It is everyone's responsibility.

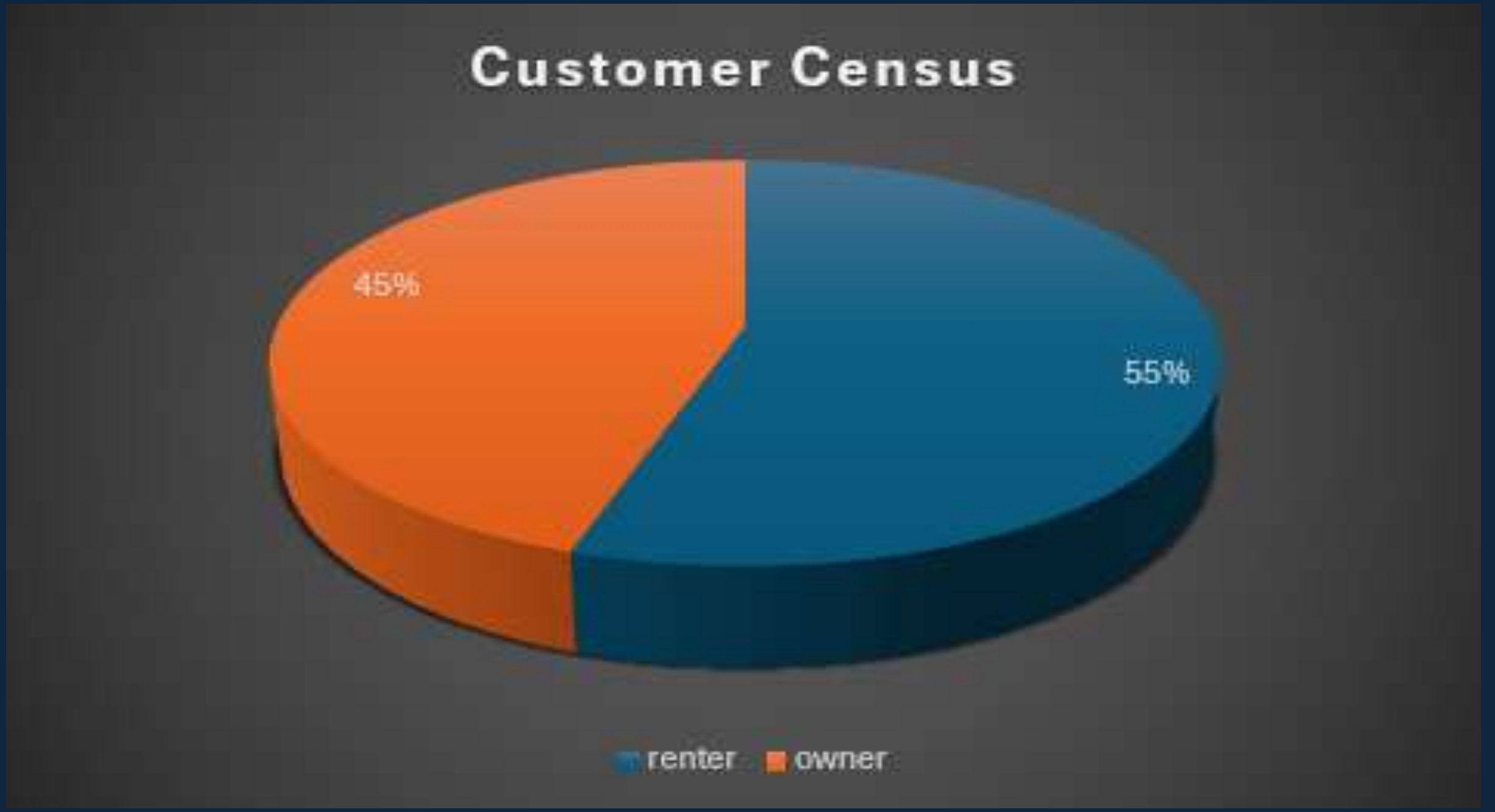
Customer Inquiries About High Utility Bills Affects Many Departments





- Customer Service
- Billing
- Meter Shop
- Transmission and Distribution
- Public Relations

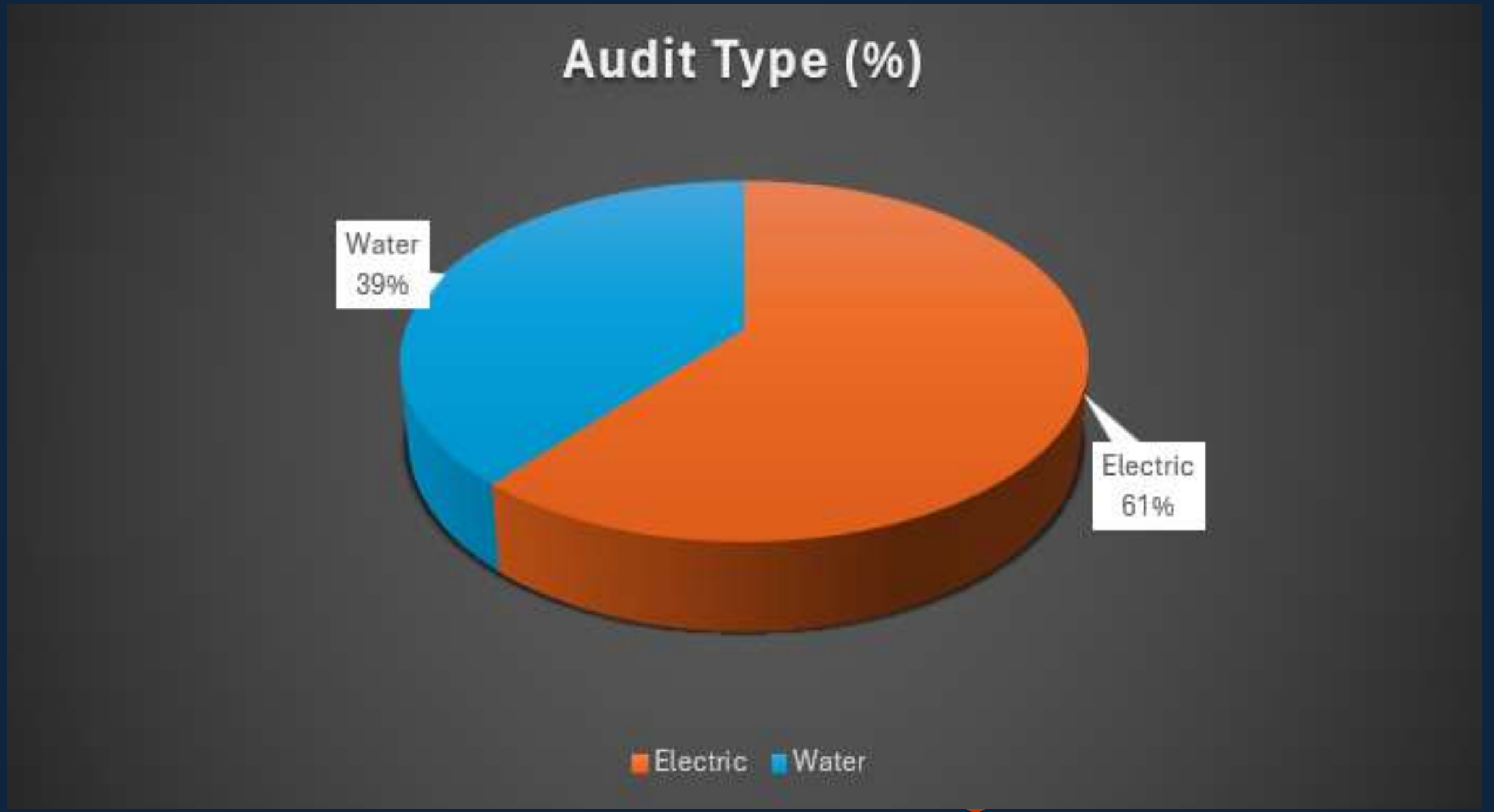

PERCENTAGE %
Two or more races 2.20% 2%
Asian 0.90% 1%
American Indian/Alaska Native 0%
Native Hawaiian/Pacific Islander 0%
Black or African American 17.10% 17%
White (non-Hispanic) 28.10% 29%
Hispanic or Latino 50.30% 51%
Hispanic or Latino
White (non-Hispanic)
Black or African American
Two or more races
Asian
American Indian/Alaska Native
Native Hawaiian/Pacific Islander

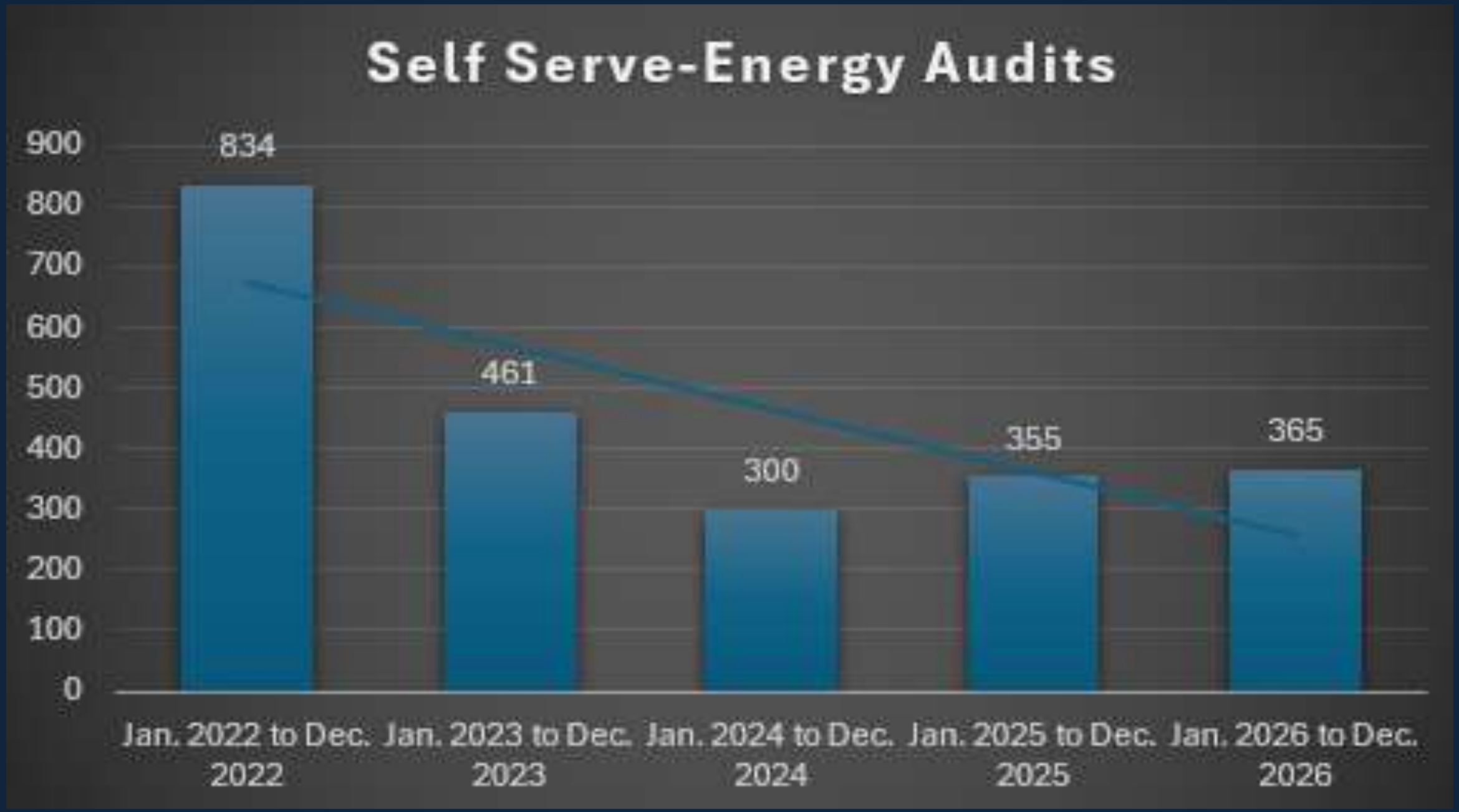

Customer Census
45%
55%
renter
owner

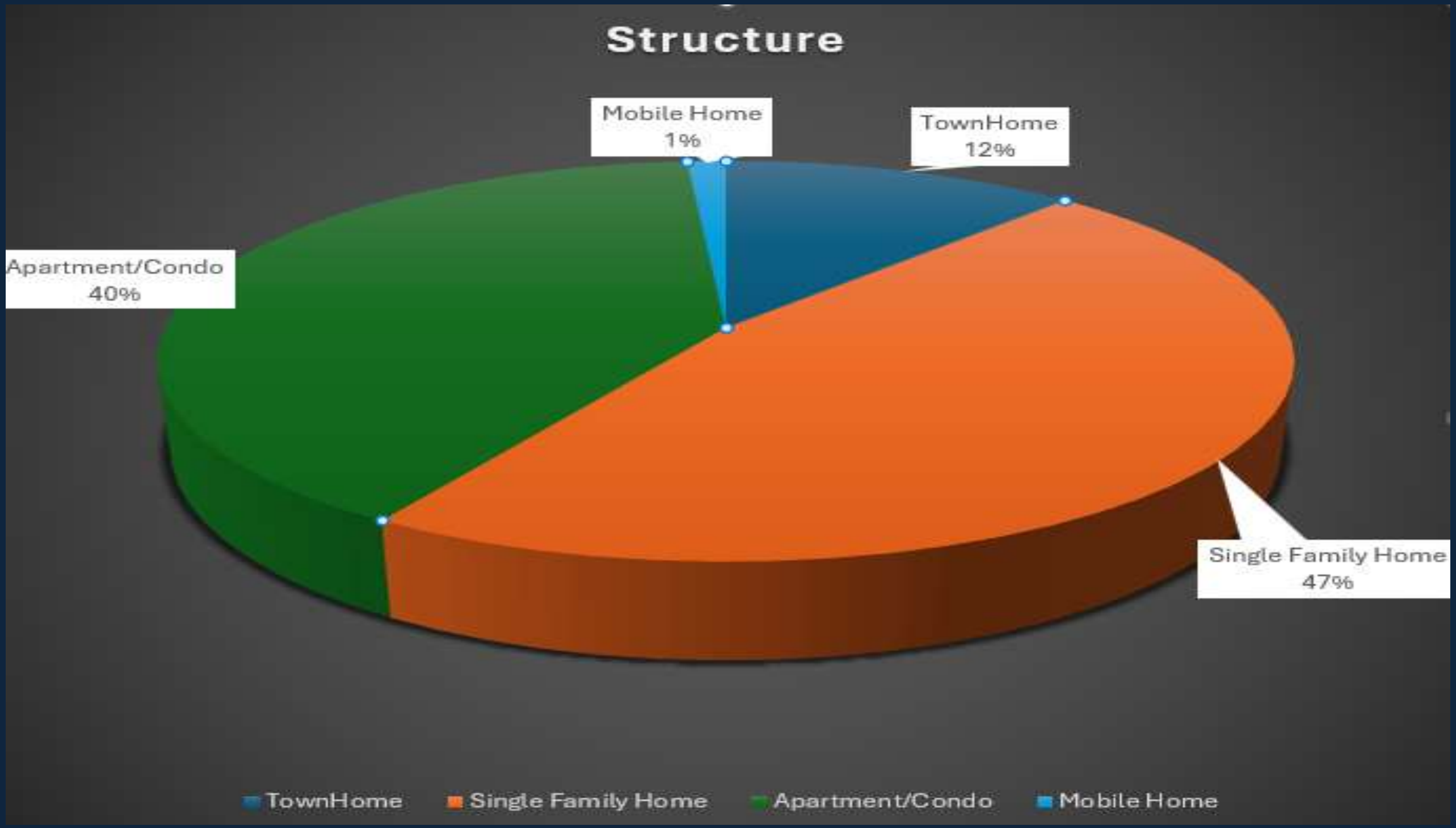
Energy Audits '22 to '26

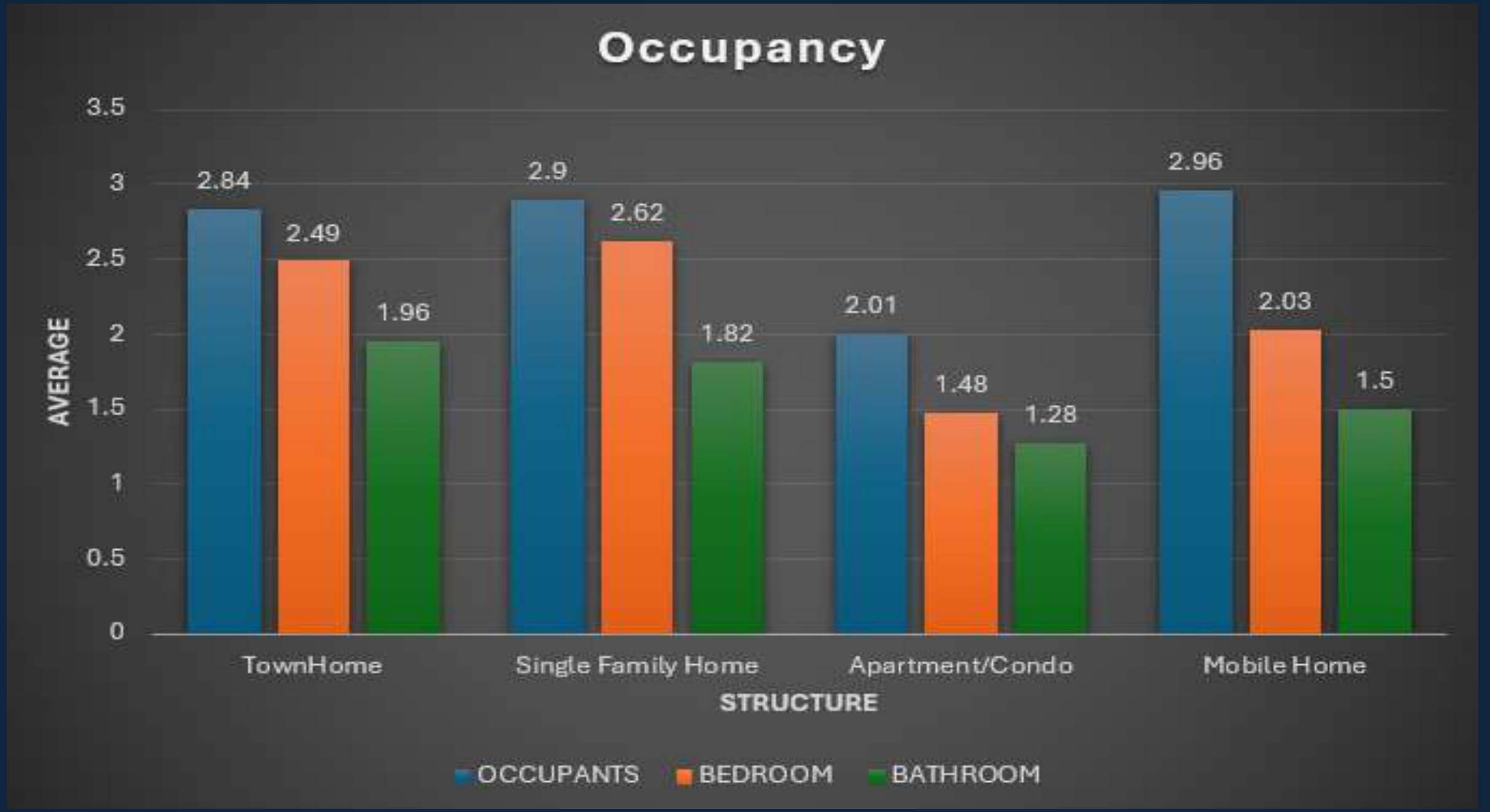


	Electric	Water	Phone	Total
Jan. 2022 to Dec. 2022	353	0	36	389
Jan. 2023 to Dec. 2023	156	28	0	184
Jan. 2024 to Dec. 2024	170	89	2	261
Jan. 2025 to Dec. 2025	258	480	3	741
Jan. 2026 to Sept. 2026	0	0	0	0
Total				1575


Audit Type (%)
Water
39%
Electric
61%
Electric
Water


Self Serve-Energy Audits
900
800
700
600
500
400
300
200
100
0
834
461
300
355
365
Jan. 2022 to Dec. 2022
Jan. 2023 to Dec. 2023
Jan. 2024 to Dec. 2024
Jan. 2025 to Dec. 2025
Jan. 2026 to Dec. 2026


Structure
Mobile Home
1%
TownHome
12%
Apartment/Condo
40%
Single Family Home
47%
TownHome
Single Family Home
Apartment/Condo
Mobile Home


Occupancy
3.5
3
2.5
2
1.5
1
0.5
0
AVERAGE
2.84
2.49
1.96
2.9
2.62
1.82
2.01
1.48
1.28
2.96
2.03
1.5
TownHome
Single Family Home
Apartment/Condo
Mobile Home
STRUCTURE
OCCUPANTS
BEDROOM
BATHROOM