

"Working with the Atlanta BBC has helped us learn & discover some of the latest technologies & innovations that are available in the energy & water efficiency & sustainability space. We have been able to implement a number of strategies that have resulted in significant financial savings, as well as allowing us to be better environmental stewards of our community."

> Victor R. Clements, The University Financing Foundation, Inc.

## **BUILDING SPECS:**

Owner: TUFF Yamacraw LLC Year Built: 2002 Square Feet: 200,459 Floors: 5 Structure: Steel, Glass & Cladding Building Use: Office & Research No. Of Occupants: 400 ENERGY STAR Score: 62

#### www.tsrb.gatech.edu





# TECHNOLOGY SQUARE RESEARCH BLDG.

# WE TOOK THE CHALLENGE 20% WATER & ENERGY REDUCTION BY 2020

Georgia Tech Research Institute has had a long commitment to high performance buildings and sustainability, and joined the Atlanta Better Buildings Challenge in November 2011. Joining the Atlanta BBC was a commitment not only to the University's performance, but also to the community as a good citizen helping to carry Atlanta forward. Georgia Tech Research Institute hopes to lead other universities to join the Atlanta BBC and support the effort to help Atlanta become a top-tier sustainable city.

## **PROJECTED SAVINGS:\***

#### WATER ..



1,293 GALLONS saved annually



**1.5M KWH** saved annually

#### DOLLARS



\$100,000 saved annually

CARBON



3,590 METRIC TONS saved annually



filled each year



powered for one year

HIRING 2 NEW EMPLOYEES each year



748 PASSENGER CARS removed from the road for one year

# 20% REDUCTION STRATEGY BY 2020

Upgrade Categories	# of Opportunities	
Lighting Opps	4	
HVAC Controls	5	
Motion/Photocell	1	13%
Variable Speed Controls	0	WATER
Computer & Server Efficiency	1	opportunities
Cooling Tower Upgrades	0	
Urinal	1	
Low Flow Faucets	0	-
Insulation & Window	0	87%
Toilet	2	<b>ENERGY</b> opportunities
Other - Misc.***	1	opportunities

Technology Square Research Building began its retrofit effort just before joining the Atlanta Better Buildings Challenge in late 2011, but quickly benefited from the Atlanta BBC assessment. The Atlanta BBC assessment provided 15 additional energy and water saving solutions that spanned from lighting retrofits to additional controls, with estimated annual savings of over \$80,000 per year. The majority of recommendations were operational or controls and sensor changes. The building moved quickly into implementation and has completed all upgrades saving 22% on electricity and water costs as compared to the 2009 baseline.

COSTS:\*\*\* \$61,293

15

TOTAL:

## DOLLARS SAVED:\*\*\* \$100,000 Annually

INVESTMENT:\*\*\* I.4 Years

**RETURN ON** 

#### Project Examples:

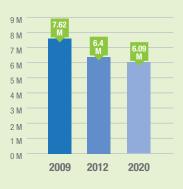
- High Efficiency Toilets
- Urinal Flush Valve Upgrade
- Implemented A Condensate Recovery Systems For Water Reuse

## 9 K 8 K 7 K 6 K 5 K 4 K 2 K 1 K 2009 2012 2020

## Project Examples:

- Global Temperature
  Setpoints
- Supply Air Temperature Reset
- Stairwell Motion Sensors





# **ADDITIONAL BENEFITS**

GALLONS

## DOLLARS PUT INTO THE COMMUNITY:\*\*\*

\$61,293

## LOCAL BUSINESS SUPPORTED:

#### McKenney's Inc.

www.mckenneys.com

#### **Greenspeed Energy**

www.greenspeedenergy.com

# **RESOURCES USED**

KILOWATT HOURS

## **BUILDING ASSESSMENT:**

Southface

## CLASSES/EVENTS ATTENDED:

The lunch and learn sessions were very beneficial, helping Technology Square Research Building gain a broader understanding of the opportunities and solutions available to help them meet their building performance goals and save on operational costs.

\*Projected savings were determined using www.epa.gov/cleanenergy/energy-resources/calculator.html#results \*\*based on a 42 gallon tub \*\*\*Estimated figures based on assessments performed as part of the Atlanta Better Buildings Challenge \*\*\*\*Kitchen equipment, vending machine upgrades, etc