

Georgia  
Tech



ILLINOIS

# Houston Galveston Area Council

Carbon Emissions Reduction  
Challenge Summer 2022

Fiz Hassan  
Transportation Policy Intern  
EDF Climate Corps Fellow

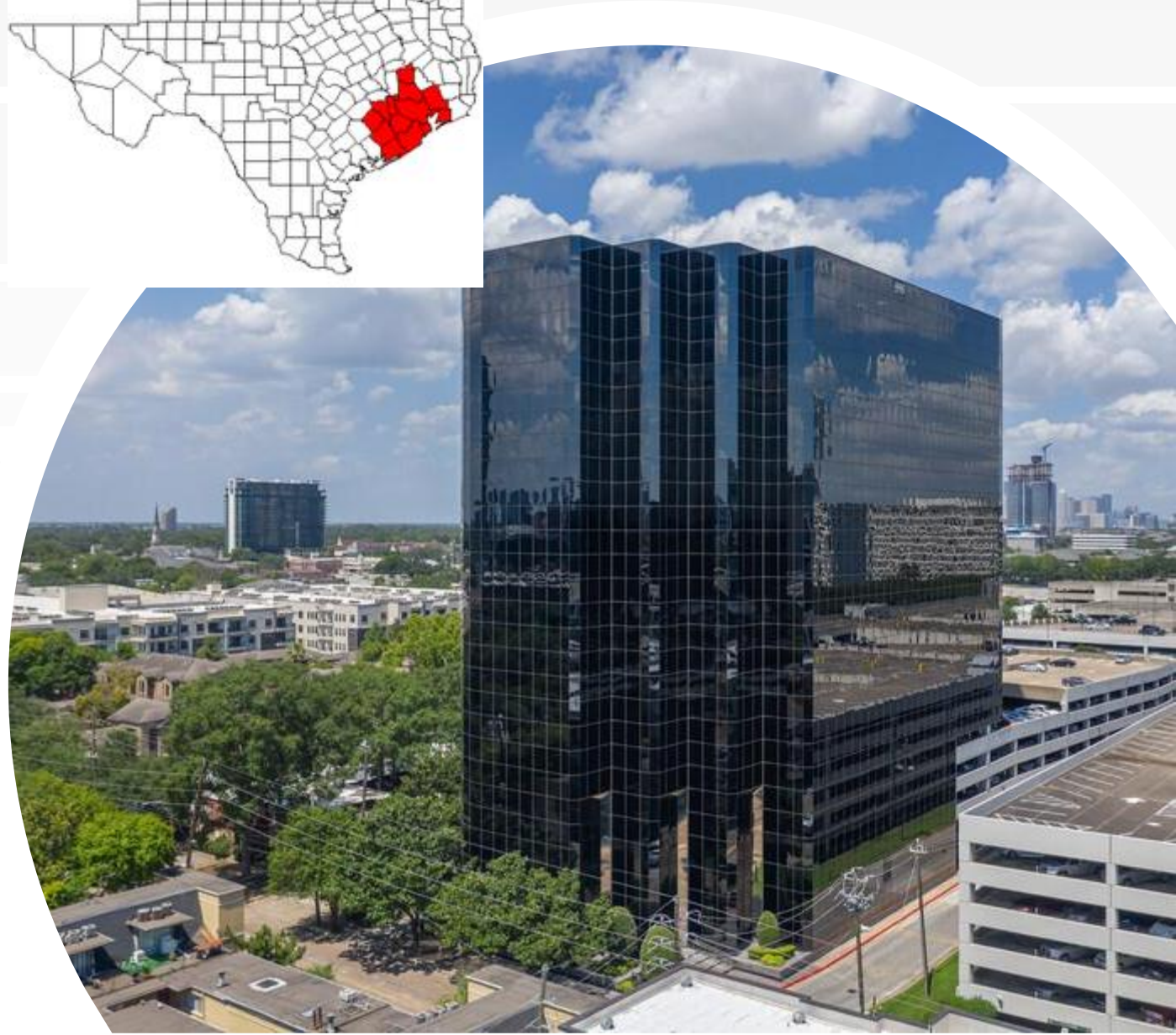
August 19th

Bisma Ali Raja  
High School Student – O2

## About the Building & Motivation

Houston-Galveston Area Council (H-GAC) is the regional organization through which local governments consider issues and cooperate in solving area wide problems.

H-GAC is at the forefront of leading the sustainability and urban resiliency efforts through its programs **relating Livable Cities, Electrical Vehicles, Air Quality improvement**, and additional activities that feed not just organizational goals but also statewide goals that eventually a line with the President Biden's vision for a climate resilient United States.



## Technical Details

- H-GAC is 1 of 2 tenants occupying 4 floors of the 14-story building
- **Floor Area:** 33,000 sq. ft per floor
- **No. of Floors:** 4
- **Employees:** 270
- Hybrid work schedule
- 270 employees (120 each day M/T – W/TH, TH/F, 20 Anchored),



## Problem Statement

- Lighting on all floors turned on to full capacity & Lacks motion Sensors
- Inefficient Space utilization
- No-in house Food catering options
- Lack of Biking options
- Seeking Ideas for forth-coming retrofits

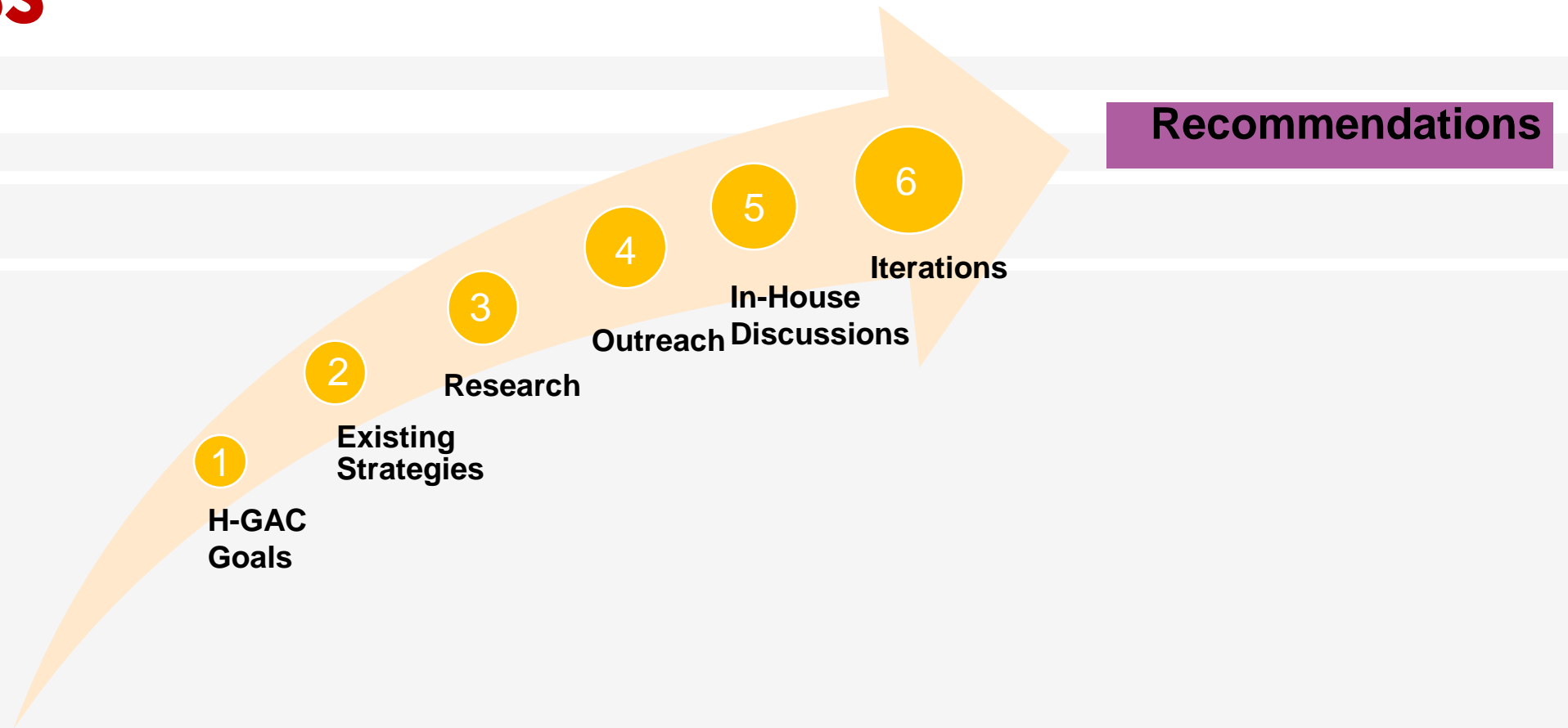
## Solution Summary

Introduced Lighting Sensors

Provide in-House Catering through External Vendor



# Process



# Carbon Emission Reduction

- Updated Lighting Schedule & introduce motion Sensors:

**4,628,000 lbs/CO2/ Yr**

Provided In House-Catering

**24,737,400 lbs/CO2/yr**



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## Co-Benefits

My initial intention was to select certain optimizable measures within the organization that not only aid with reducing the emissions and energy wastage but also nourish other aspects such as:

1. Help with work productivity
2. Increase team bonding
3. Promote healthy eating
4. Improve floor space utilization

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## Organization Intent & Support

Staff and management were **receptive** to new interventions that support sustainability.

Worked with the H-GAC project development staff to **determine the best candidate strategies** while implementing these strategies into H-GAC's program selection process.

Chuck Wemple: **Executive Director**

Jim Rose: **Building & Facilities Manager**

Andrew DeCandis: **Principal Planner & Supervisor**

Jamila Owens: **Program and Project Manager**





## Steps Forward

- Maximize floor space utilization by optimizing the parameters for the Space IQ software.
- -Add zoning control & sensors for lights
- HVAC thermostat control
- Update office meeting schedules to reduce drive-in days
- Food Composting
- Go Paperless
- Introduce Biweekly employee score board for CO2 reductions
- Increase Scope of investigation based on expected retrofits in the coming year
- Pending Meeting with Uber Staff to provide Green Transportation Credits
- Refine Calculations
- Discuss with Professor's & H-GAC Staff
- Present to H-GAC in mid-September





# THANK YOU!

# QUESTIONS?



Fiz Hassan



217 904 9445



[fhassan3@illinois.edu](mailto:fhassan3@illinois.edu)