

# North Texas Weatherization Workshop

Thursday, March 2, 2023 | 9:00 am – 1:00 pm  
Vine Arts and Events Center  
225 West Worth St., Grapevine, TX 76051

This workshop is generously sponsored by the City of Dallas and [the North Texas Regional Integration of Sustainability Efforts \(RISE\) Coalition](#). The RISE Coalition is a forum to engage and support local governments in sustainability and environmental initiatives, hosted by the North Central Texas Council of Governments (NCTCOG).

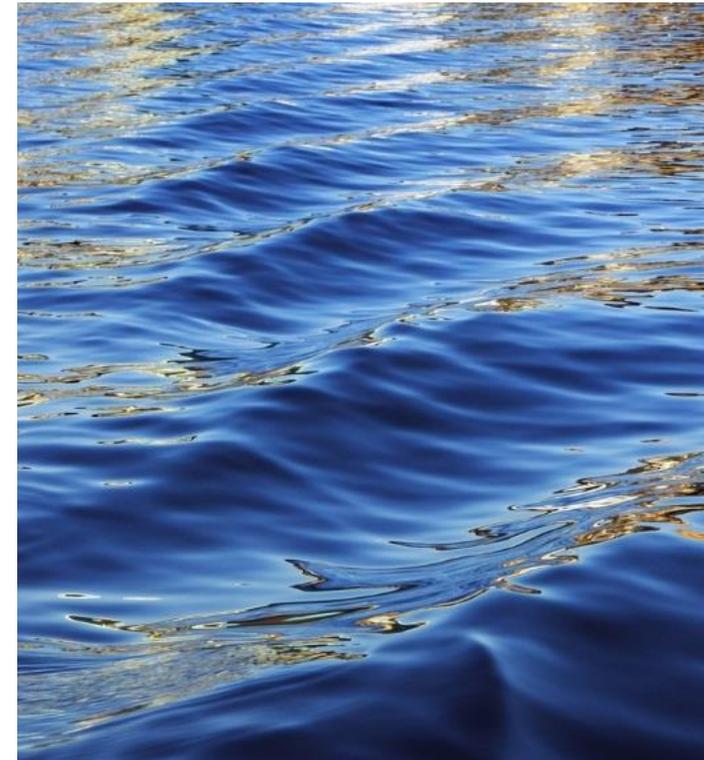
- 9:00 AM Welcome and Introductions
- 9:15 AM Keynote: Preparing the Frontlines for a Climate Future through Holistic Weatherization  
Presenter: Dr. Margaret Cook, Houston Advanced Research Center
- 10:00 AM Panel: Weatherization Assistance Programs  
Moderator: Katherine Barnett, City of Denton  
Panelists: Bree Boyd, Atmos Energy  
Carl Brown, Oncor Energy  
Amy Connolly, City of Fort Worth  
Brad Manning, Texas Neighborhood Services
- 10:45 AM Break
- 10:55 AM Panel: Benefits to Communities and the Environment  
Moderator: Mendie White, City of Lewisville  
Panelists: Dr. Eva Csaky, Hunt Institute for Engineering & Humanity  
Julie Hiromoto, HKS Architects  
Alan Hoffmann, Hoffmann Homes  
Andrew Robison, Texas Energy Poverty Research Institute
- 11:45 AM NCTCOG Opportunities Presentation
- 12:00 PM Lunch Provided
- 12:15 PM Lunchtime Keynote: The City of Dallas's Whole Home Program  
Presenters: Pharr Andrews and Rosaerlinda Cisneros, City of Dallas
- 1:00 PM Workshop Adjourns

If you have any questions regarding the meeting or agenda items, please contact Breanne Johnson at (817) 695-9148 or [BJohnson@nctcog.org](mailto:BJohnson@nctcog.org). If you plan to attend this public meeting and you have a disability that requires special arrangements at the meeting, please contact Liliana Sheppard at (817) 695-9231 or [LSheppard@nctcog.org](mailto:LSheppard@nctcog.org) at least 72 hours in advance of the meeting. Reasonable accommodations will be made to assist your needs.



# Weatherization Workshop

Vine Arts & Events Center  
9:00 am – 1:00 pm  
March 2, 2023



Hosted by the North Central Texas Council of Governments (NCTCOG) and the Regional Integration of Sustainability Efforts (RISE) Coalition, with funding support from the City of Dallas and the Texas State Energy Conservation Office (SECO).

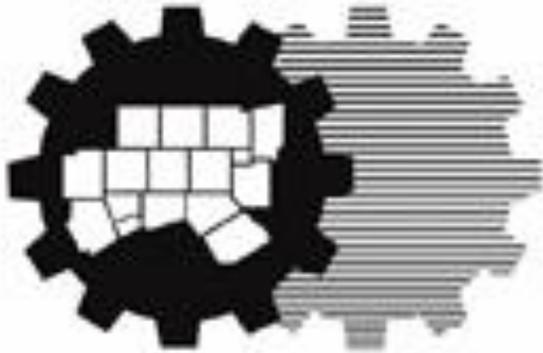


# March 2, 2023

## Workshop Agenda

- 9:00 AM**      **Welcome and Introductions**
- 9:15 AM**      **Keynote:** Preparing the Frontlines for a Climate Future through Holistic Weatherization
- 10:00 AM**      **Panel:** Weatherization Assistance Programs
- 10:45 AM**      **Break**
- 10:55 AM**      **Panel:** Benefits to Communities and the Environment
- 11:45 AM**      **NCTCOG Opportunities Presentation**
- 12:00 PM**      **Lunch**
- 12:15 PM**      **Lunchtime Keynote:** The City of Dallas's Whole Home Program
- 1:00 PM**      **Workshop Adjourns**

# Workshop Sponsors and Partners



North Central Texas  
Council of Governments



City of Dallas



**SECO**

State Energy  
Conservation Office



# North Texas Regional Integration of Sustainability Efforts (RISE) Coalition

The Regional Integration of Sustainability Efforts (RISE) Coalition works to engage interested local governments in peer-exchange opportunities to support sustainability and environmental initiatives.

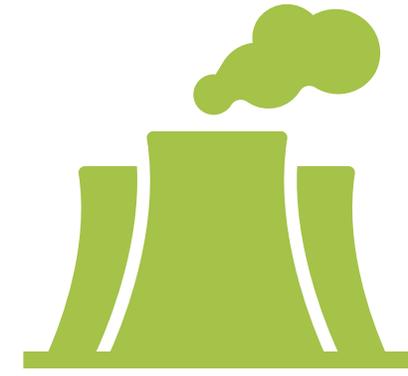
**Coalition membership is open to all NCTCOG members. Non-voting and Participant membership options as well.**

[www.nctcog.org/envir/development-excellence/rise-coalition](http://www.nctcog.org/envir/development-excellence/rise-coalition)





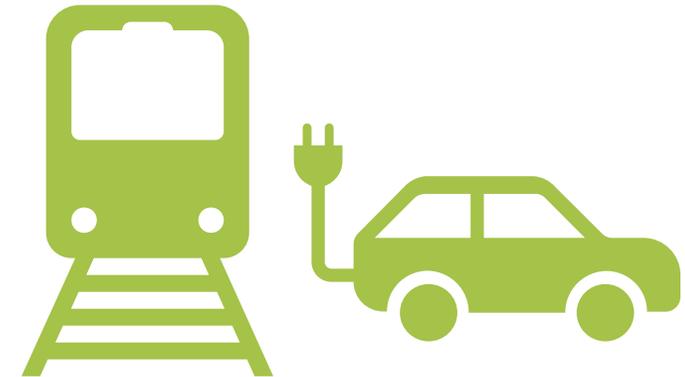
**Energy Efficiency Programs &  
Regional Energy Resilience**



**Regional Emissions  
Assessment**



**Waste Reduction &  
Beneficial Reuse Programs**



**Sustainable Transportation &  
Air Quality Strategy Analysis**

# Texas State Energy Conservation Office (SECO) Energy Management Program

NCTCOG receives funding through SECO to work on energy management and efficiency projects within the region. As part of this work, we have provided webinars and technical assistance on a variety of energy management, energy efficiency, and renewable energy topics.



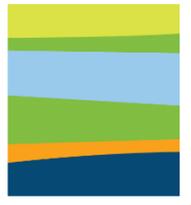
**SECO**  
State Energy  
Conservation Office

[www.nctcog.org/envir/natural-resources/energy-efficiency](http://www.nctcog.org/envir/natural-resources/energy-efficiency)

# Preparing the Frontlines for a Climate Future

Margaret Cook

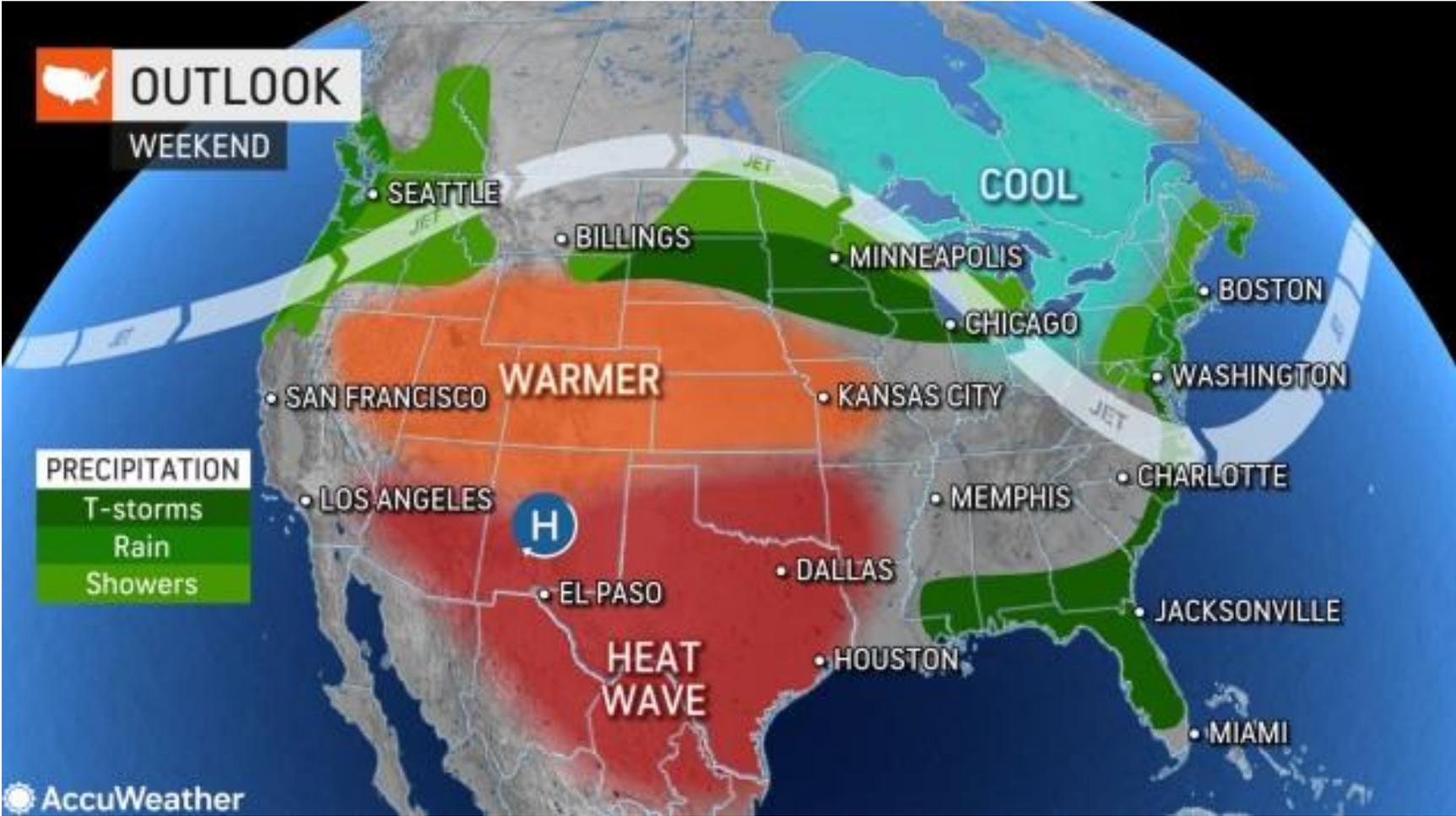
March 2, 2023



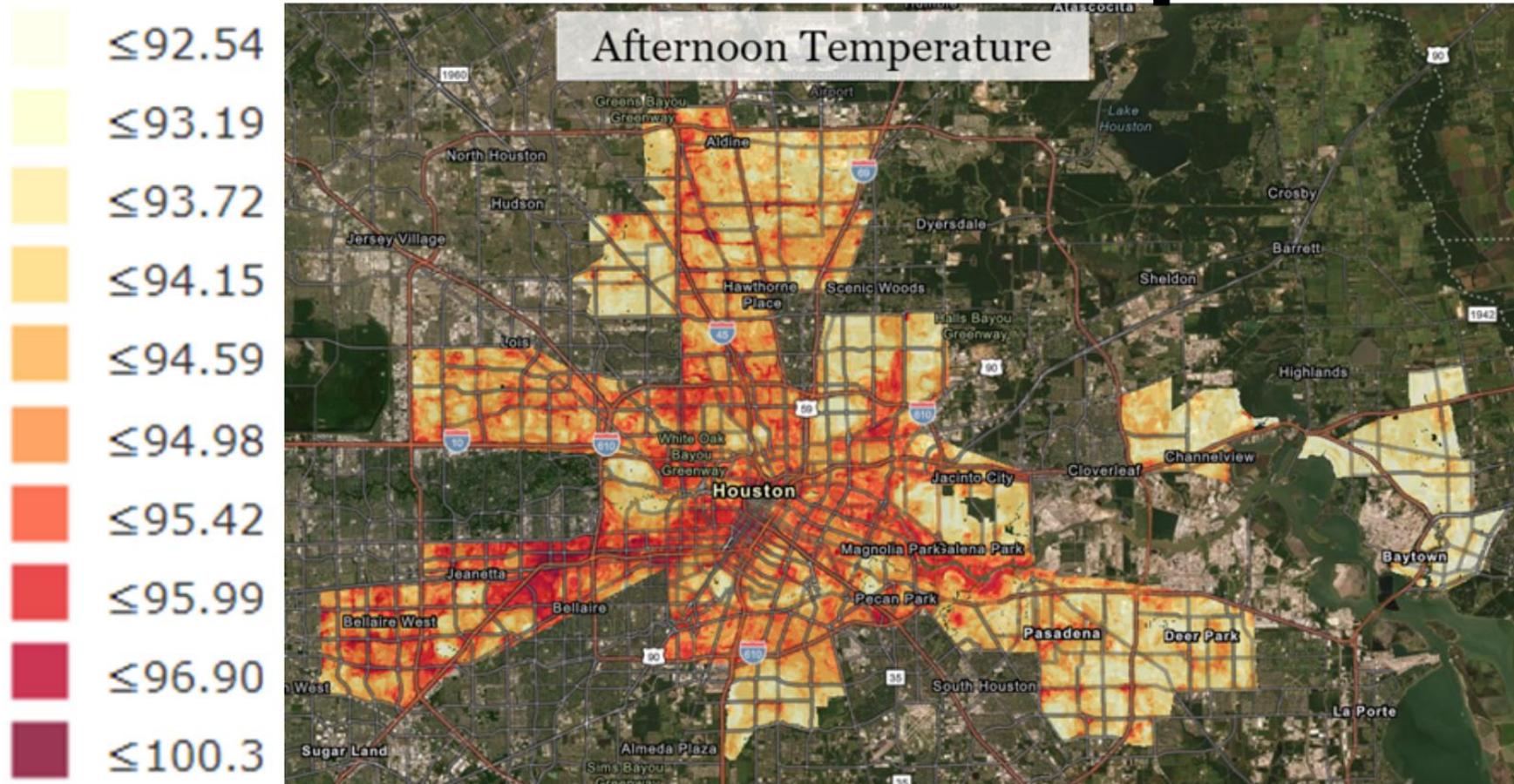
**HARC**

[HARCresearch.org](https://HARCresearch.org)

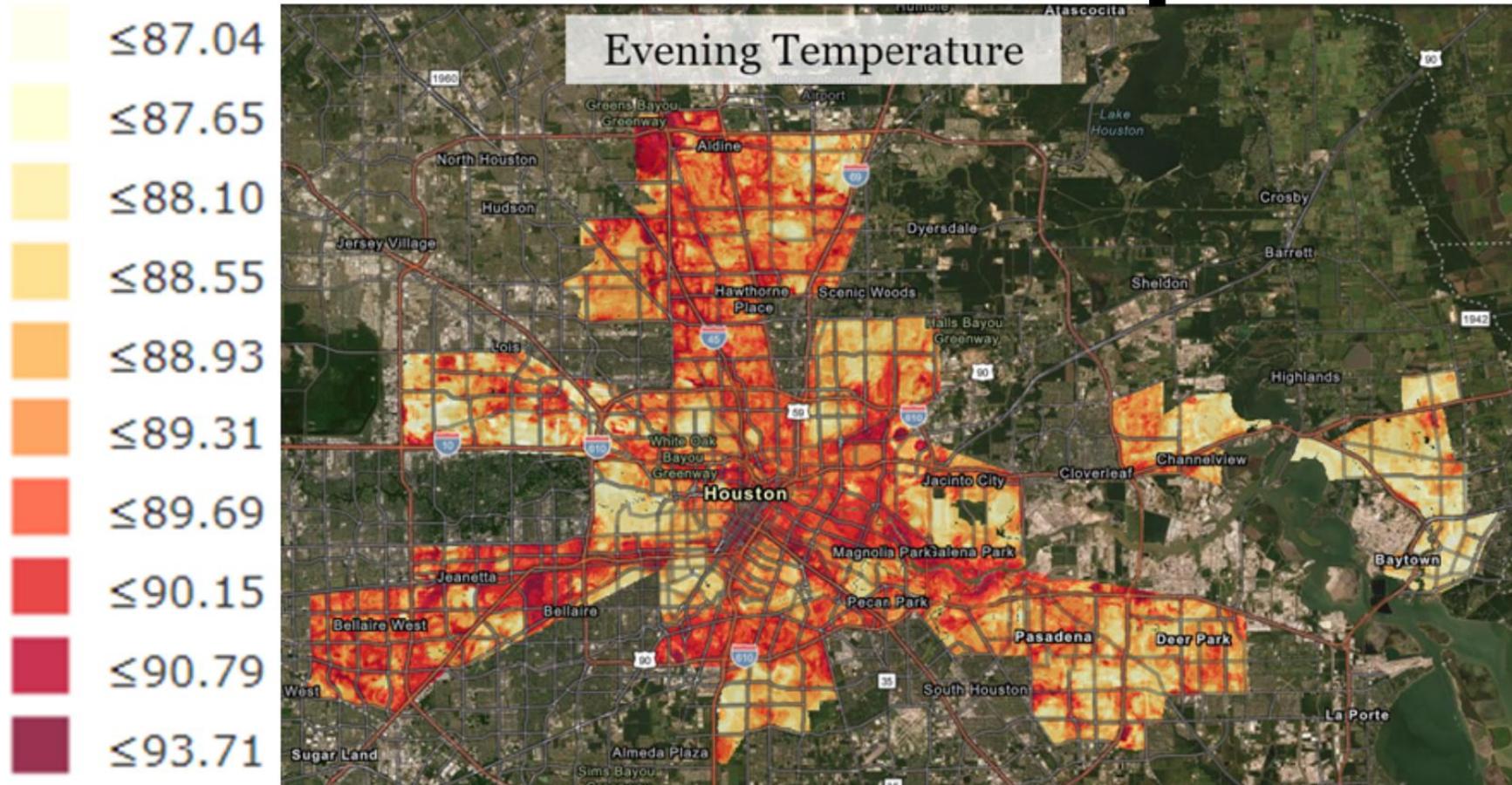
# Extreme heat is common in Texas



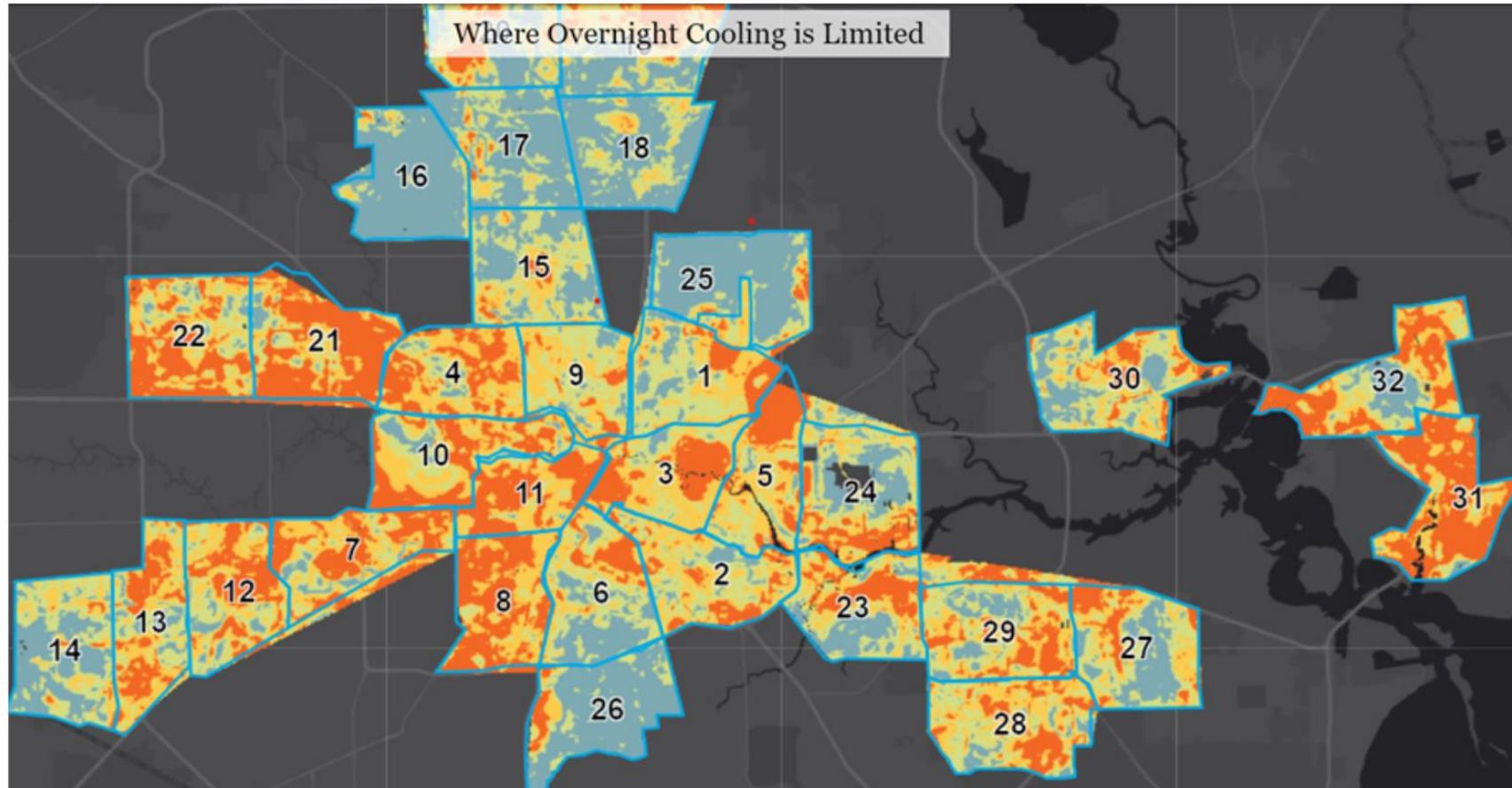
# On August 7, 2020 volunteers measured hottest and coolest places in Houston



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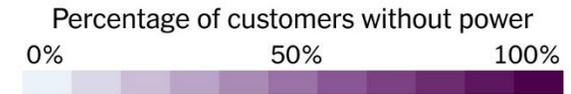
# Urban heat lingers in some parts of the city more than others



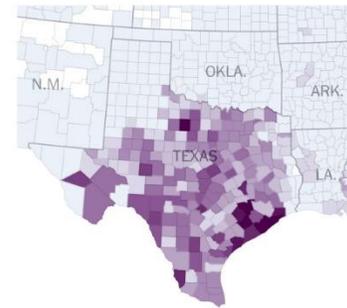
# Extreme cold is less common but very dangerous



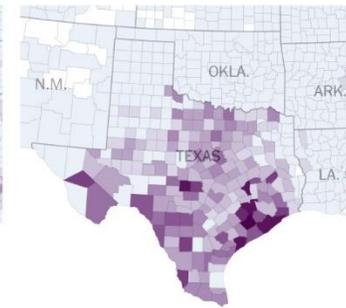
Image source: Texas Comptroller



Monday, 10 p.m.



Wednesday, 11:30 a.m.



Thursday, 10:30 a.m.

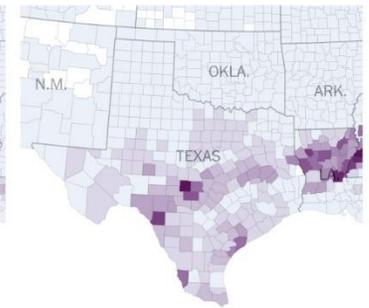
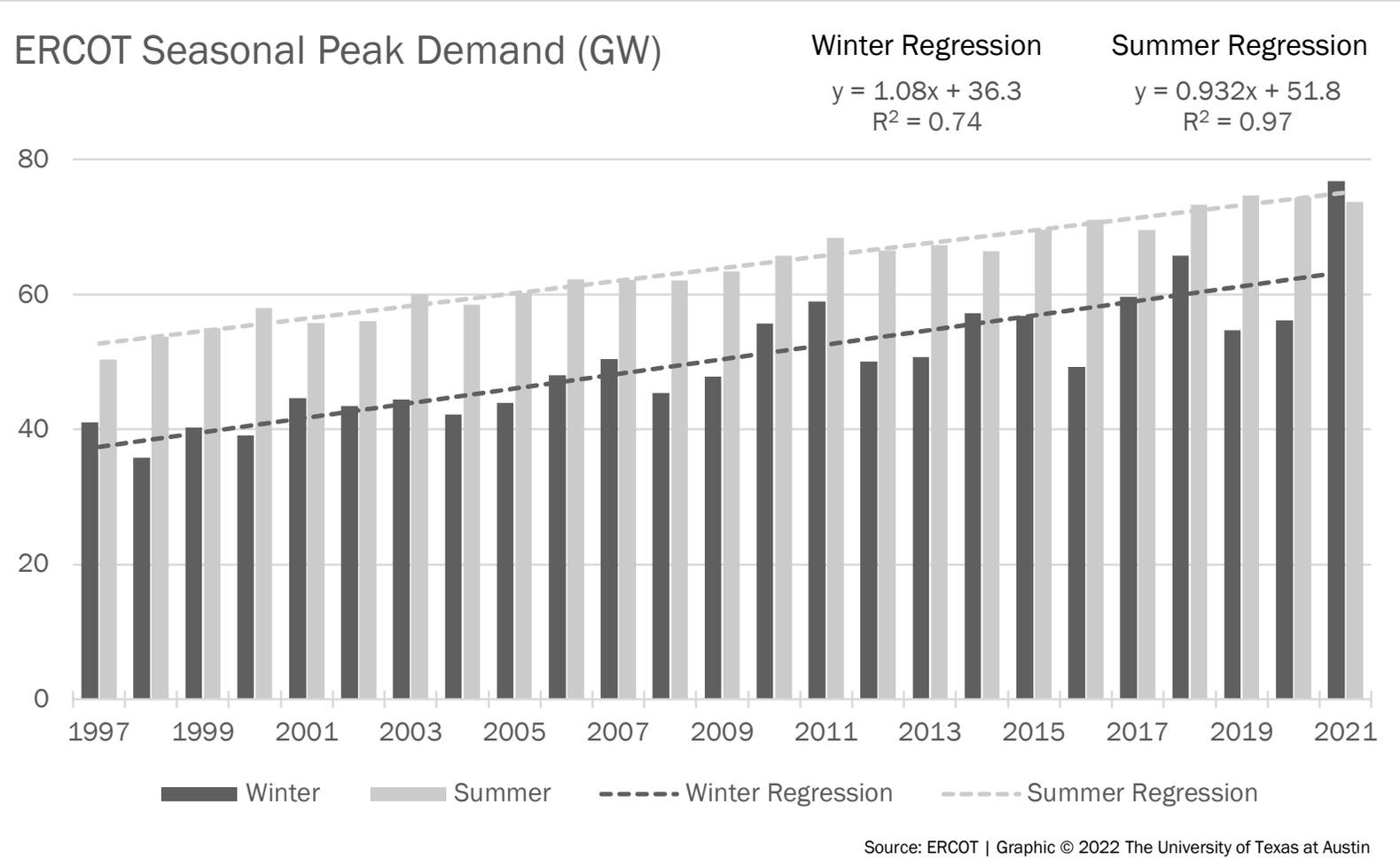


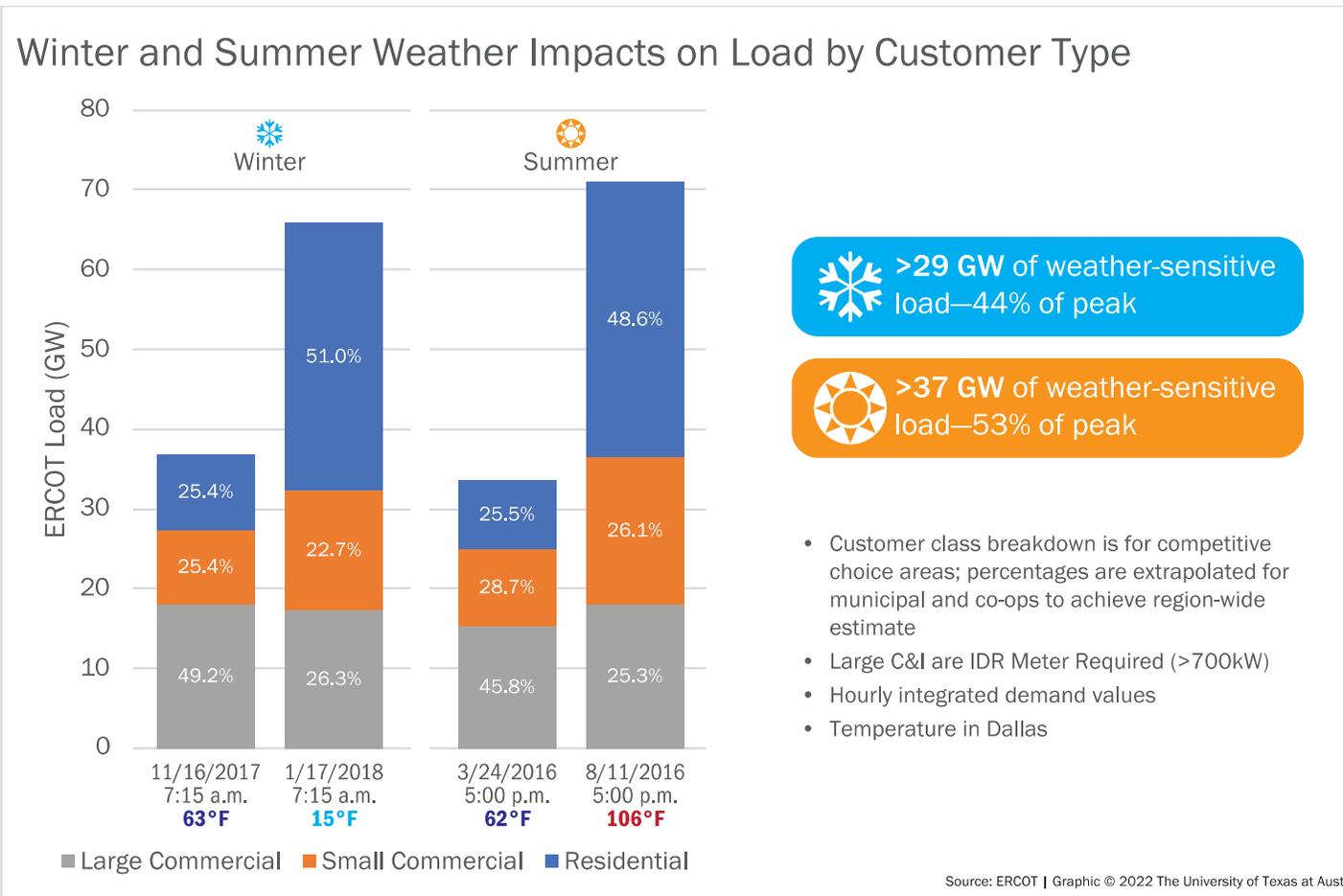
Image source: NY Times



# Extreme weather stresses the Texas grid



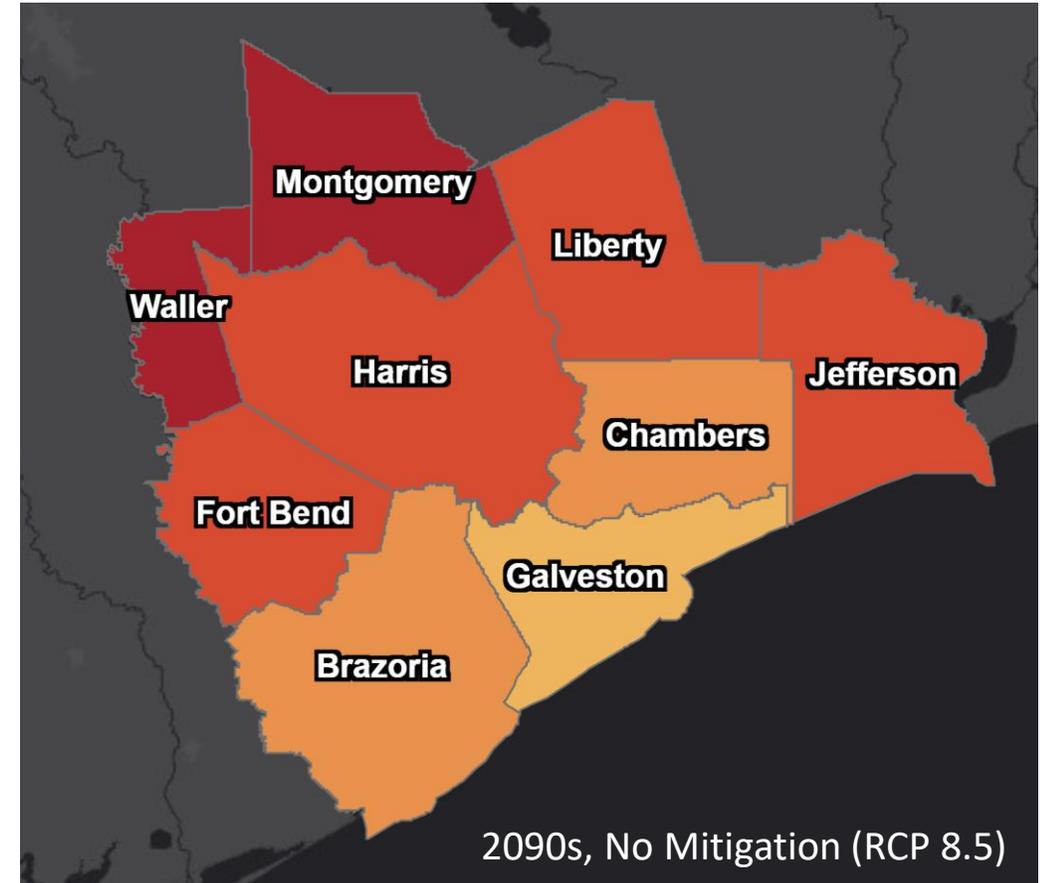
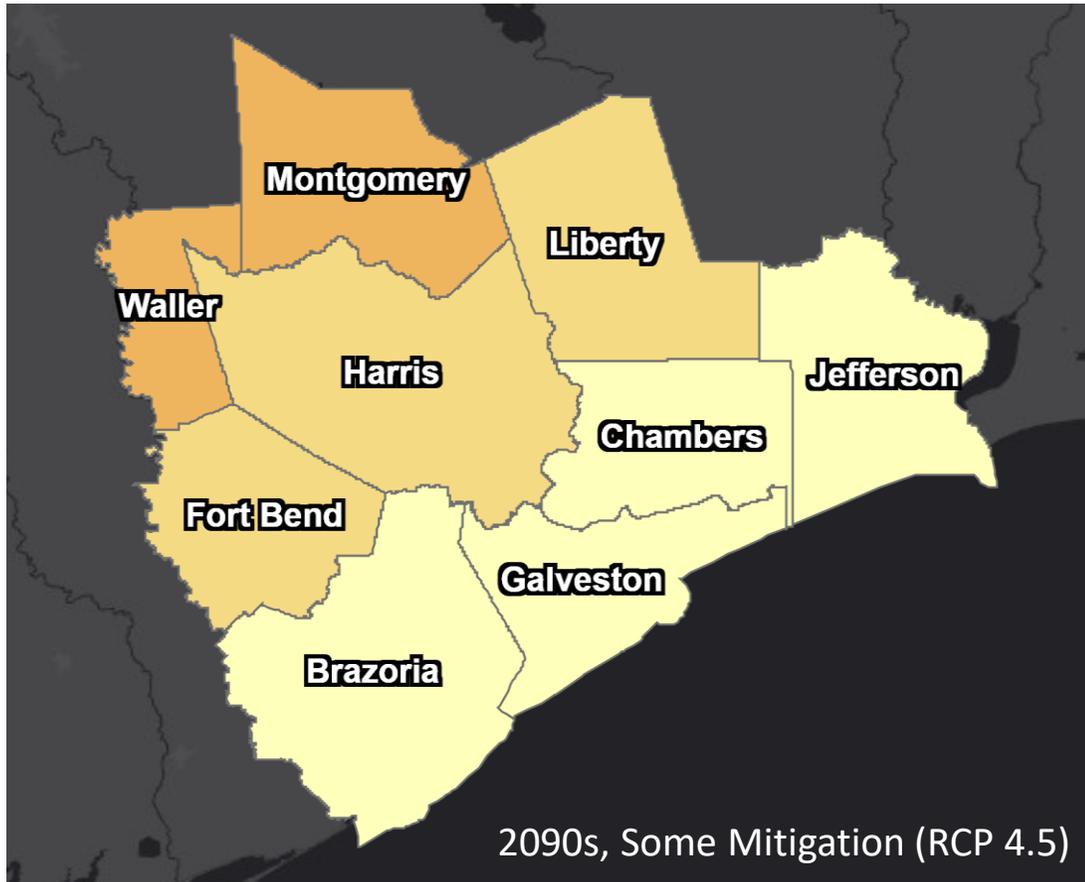
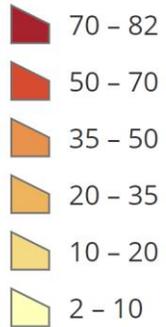
# Extreme weather stresses the Texas grid, putting residents at risk of power outages



# Climate change is expected to worsen extreme weather conditions

Change in Days above 100F

Days



# Texas is expected to get warmer

- Hotter days, warmer nights, more days over 100
- Longer summers and longer heat waves
- Dry days but more intense precipitation
- Harris County is the most at-risk county in the U.S. for climate/weather (NOAA)
- Resilience Science Information Network:  
<https://storymaps.arcgis.com/stories/2daea920408e41669ab70801a452aff0>

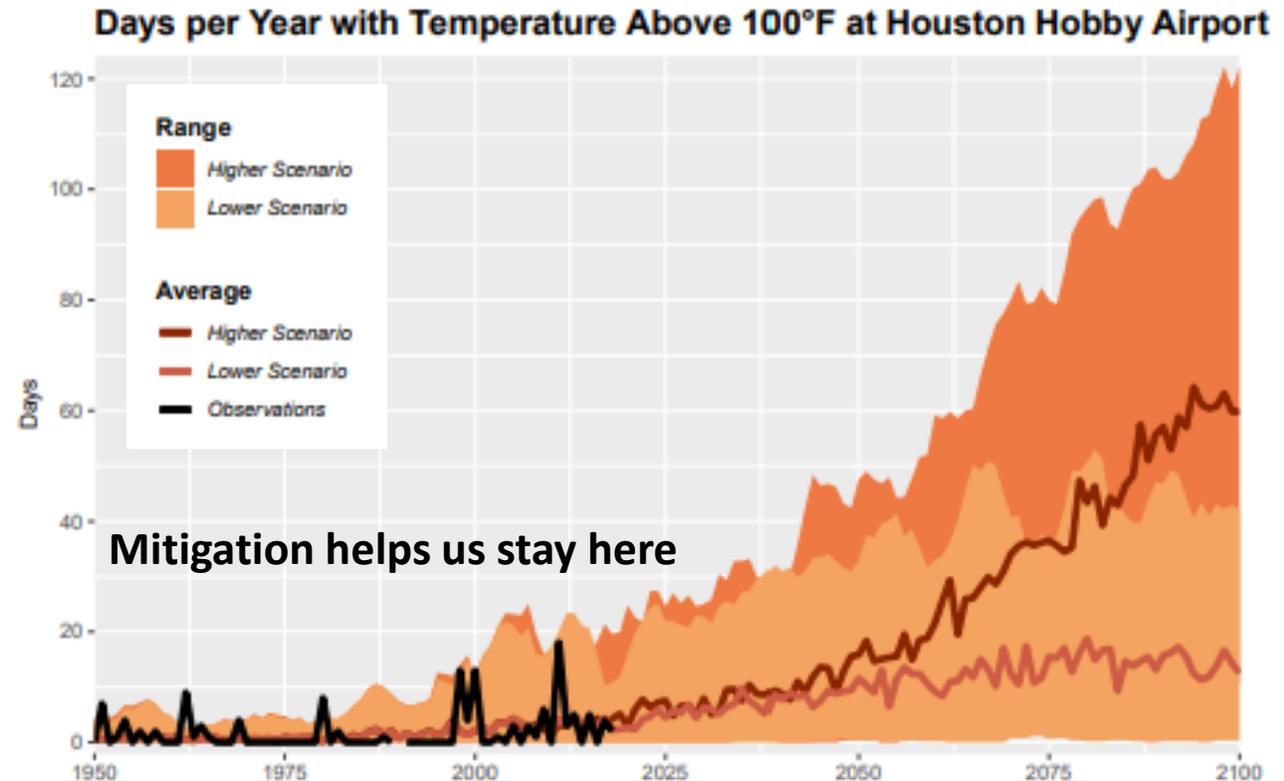


Image source: Houston Climate Impact Assessment



# Climate adaptation

- Preparing for climate change
  - Resilience, making it easier/safer to bounce back from an extreme event
- Varying scales
  - Home vs. community vs. nation



Photo by [Alireza Kamali](#) on [Unsplash](#)



# Climate mitigation

- Reducing greenhouse gases in the atmosphere
  - GHGs trap heat
  - Reduce climate change we experience
- Need to mitigate AND adapt



Image source: Eyoel Kahssay on Unsplash



# Why mitigation?

- Reduces impact + gives us more time to adapt
- Climate change impacts already vulnerable, historically under-resourced communities most

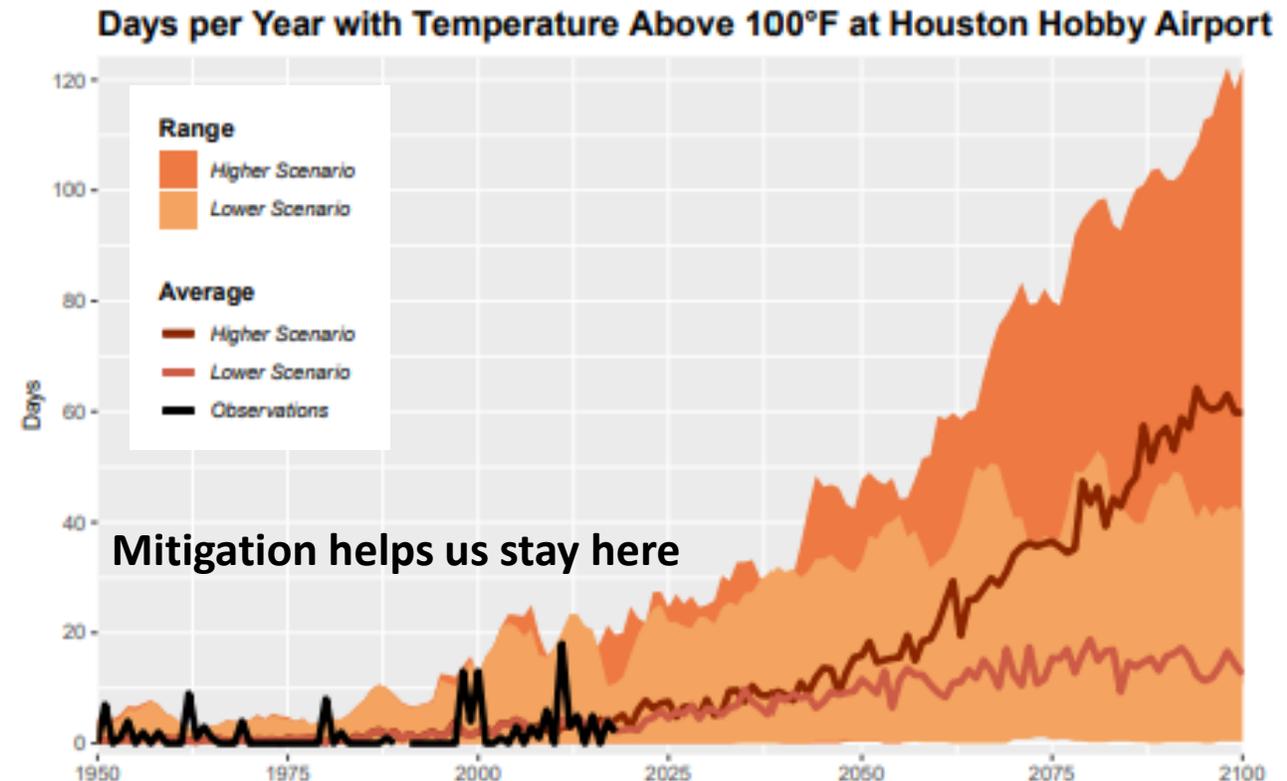


Image source: Houston Climate Impact Assessment



# Extreme heat is dangerous for certain residents

## Who is at highest risk?

Anyone can suffer from heat-related illnesses, but those at greater risk include:



Infants and children up to age 4



People 65 years of age and older



People who are overweight



Those who have heart disease or high blood pressure



People who overexert during work or exercise

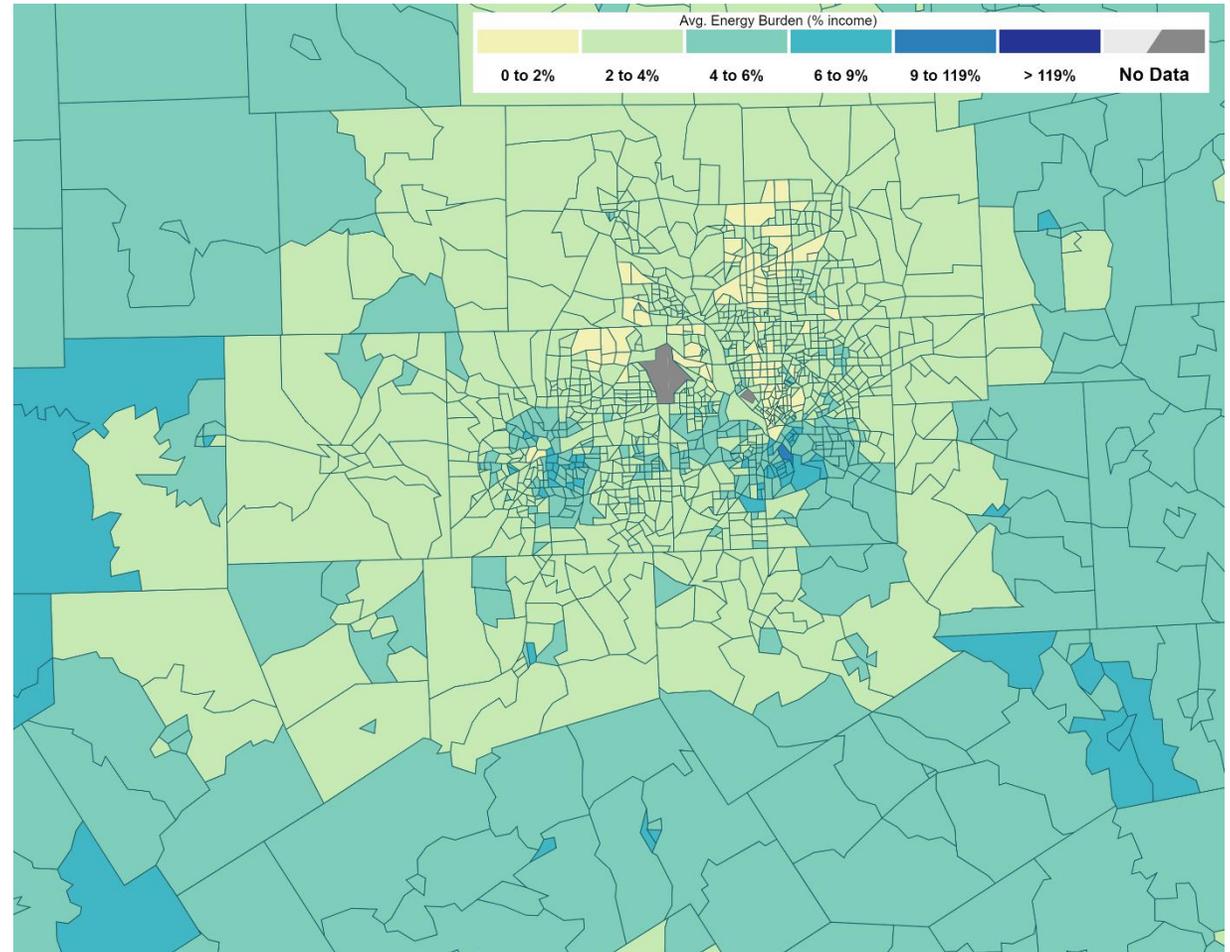


People who have a mental illness



# Energy insecurity puts low-income residents at risk

- Energy burden
  - High energy bills as a percentage of income
  - High social vulnerability and rural areas of the state
- Energy rationing
  - Residents reduce consumption to reduce bills, even when unsafe
  - Rotating which bill gets paid
- Risk of shutoff from nonpayment



Energy burden (energy bill as a percent of income) for census tracts in North Texas  
(image source: LEAD tool)



# Weatherization protects vulnerable residents



## MECHANICAL MEASURES

- Clean, tune, repair, or replace heating and/or cooling systems.
- Install duct and heating pipe insulation.
- Install programmable thermostats and other HVAC controls.
- Repair/replace water heaters.
- Install water heater tank insulation.
- Insulate water heating pipes.
- Install solar water heating systems.
- Install waste heat recovery devices.



## HEALTH & SAFETY MEASURES

- Complete combustion appliance safety testing.
- Repair/replace vent systems to ensure combustion gas draft safely outside.
- Install mechanical ventilation to ensure adequate indoor air quality.
- Assess fire hazards. Install smoke and carbon monoxide alarms when needed.
- Evaluate mold/moisture hazards.
- Perform incidental safety repairs when needed.



## BUILDING SHELL MEASURES

- Install wall, floor, ceiling, attic, and/or foundation insulation.
- Complete Blower Door Testing.
- Perform air sealing.
- Repair/replace primary windows/doors.
- Install storm windows/doors.
- Install window film/solar screens/window louvers and awnings.
- Repair minor roof and wall leaks prior to attic or wall insulation.



## ELECTRIC BASELOAD MEASURES

- Install motor controls.
- Install efficient light sources.
- Replace refrigerators and freezers with energy efficient models.

Image source: Department of Energy

- Energy-saving strategies
  - Reduces energy needed to run home *the same way*
- Upgrades should keep residents comfortable and safe
  - Adapting homes to climate risk



# Weatherization protects vulnerable residents

- Energy-saving strategies
  - Reduces energy needed to run home *the same way*
- If resident doesn't change behavior:
  - Energy savings
  - Residents saves money, reduced energy burden
  - Reduced grid stress
  - Reduce grid emissions (climate mitigation)

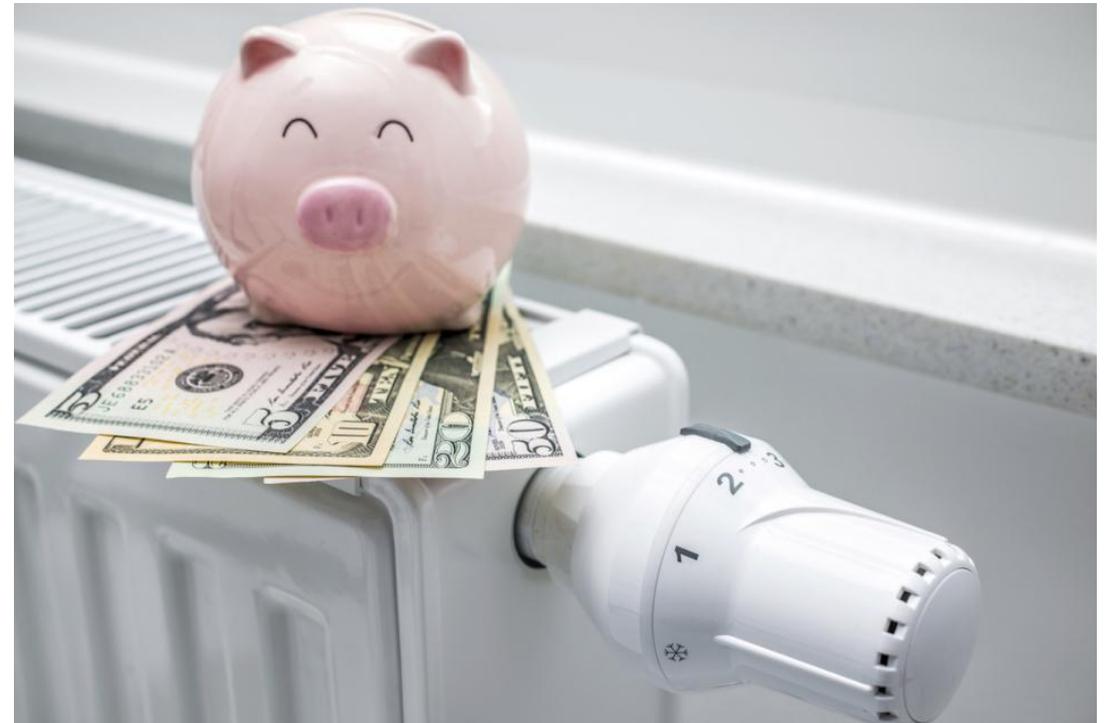


Image source: PA Energy Smart



# Weatherization protects vulnerable residents

- Energy saving strategies
  - Reduces energy needed to run home *the same way*
- If resident had been rationing/changes behavior:
  - They can reduce rationing
  - Little/no energy savings, money savings
  - Increased health and safety
    - Estimated \$2.78 in non-energy benefits for every \$1 invested



# Weatherization protects vulnerable residents



Image source: Dallas Morning News



# Weatherization in Texas

- Administered by the Texas Department of Housing and Community Affairs (TDHCA)
  - Department of Energy's Weatherization Assistance Program (WAP)
  - Department of Housing and Urban Development's Low-Income Home Energy Assistance Program (LIHEAP)
- Conducted by local entities
  - Cities, counties, nonprofits, community action programs
  - Local utilities
- In 2020, 2,615 dwellings in Texas were served through these programs



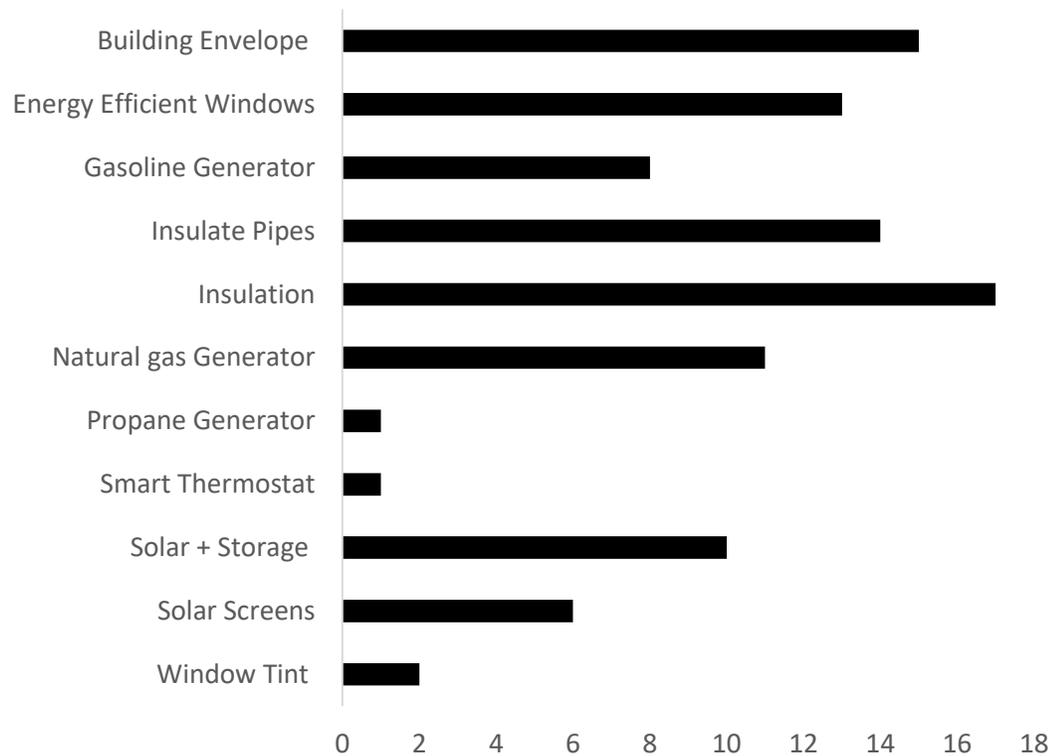
# Strategies included in weatherization in Texas

- Diagnostic assessment
  - Upgrades
    - Examples to the right (\* most common)
  - Must meet cost-effectiveness limit
    - Savings to investment ratio determined by the National Energy Audit Tool
    - Limits what strategies can be employed
- ✓ Attic,\* wall,\* floor, and pipe insulation
  - ✓ ASHRAE compliant exhaust fans
  - ✓ Smoke and carbon monoxide detectors
  - ✓ Air sealing,\* duct sealing
  - ✓ New refrigerators and water heaters
  - ✓ Air conditioning and heating tune-up or replacement
  - ✓ Solar screens
  - ✓ Improved windows
  - ✓ Low-cost measures: low-flow shower heads and aerators, LED bulbs, weather-stripping, and water heater tank wraps
  - ✓ Minor gas leak repairs

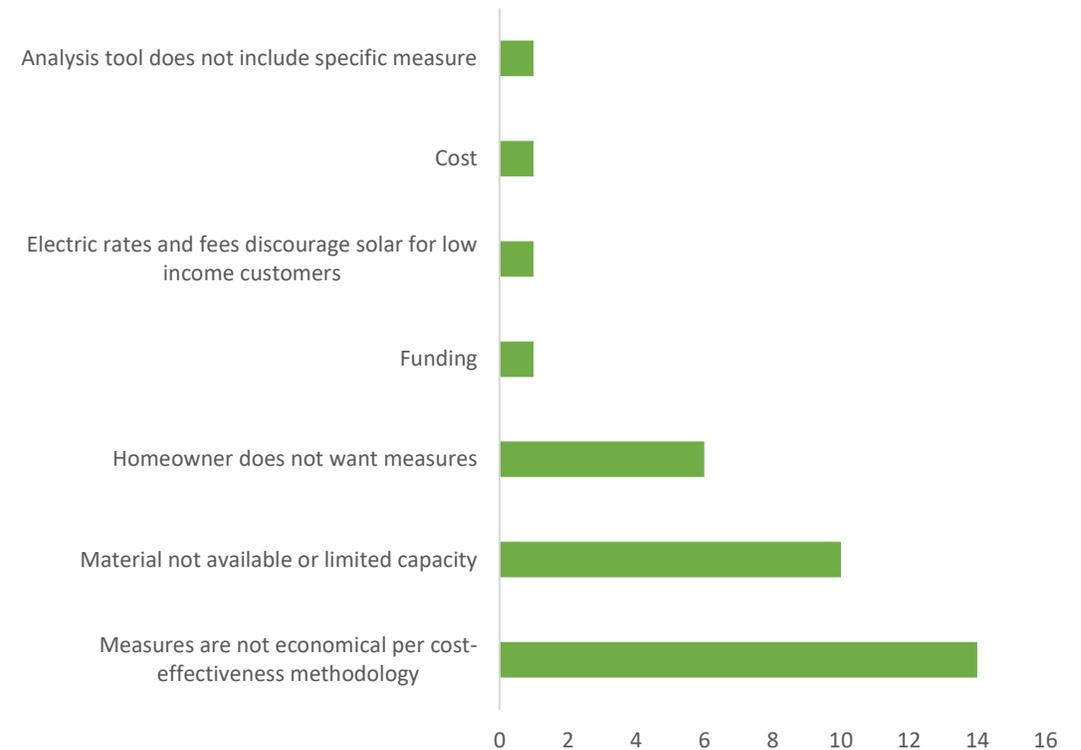


# HARC surveyed utilities about weatherization recommendations, limitations

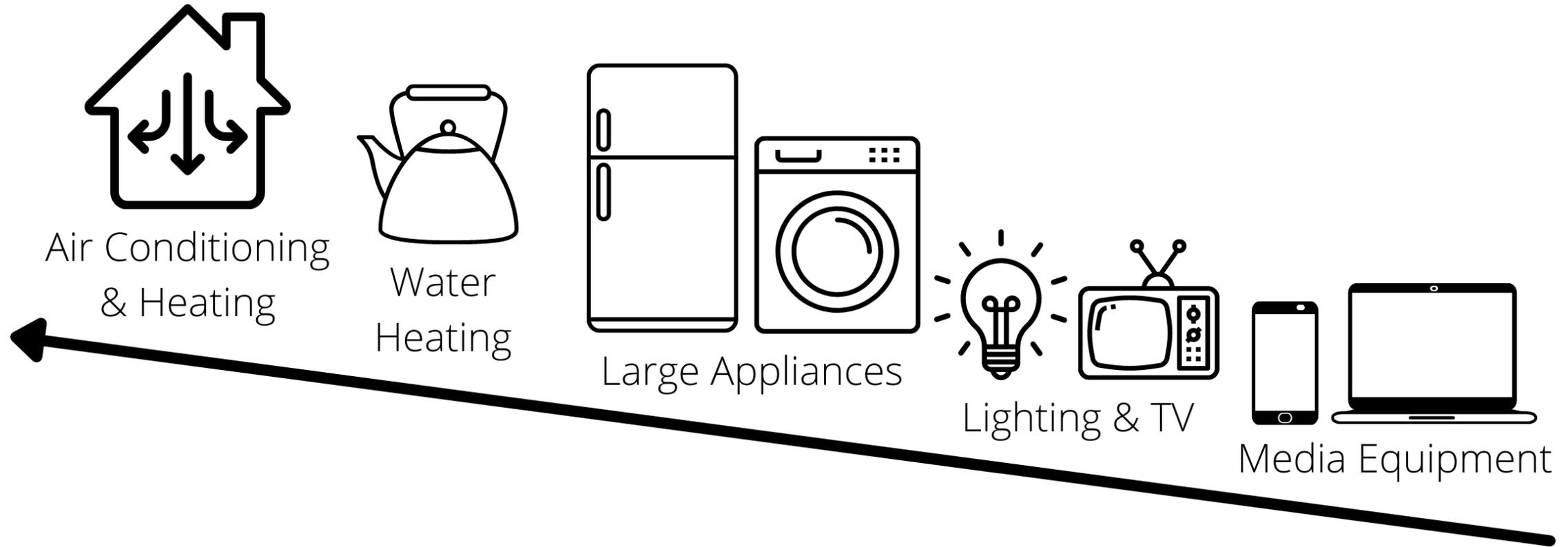
What measures would you recommend to improve the resilience of a home during a power outage?



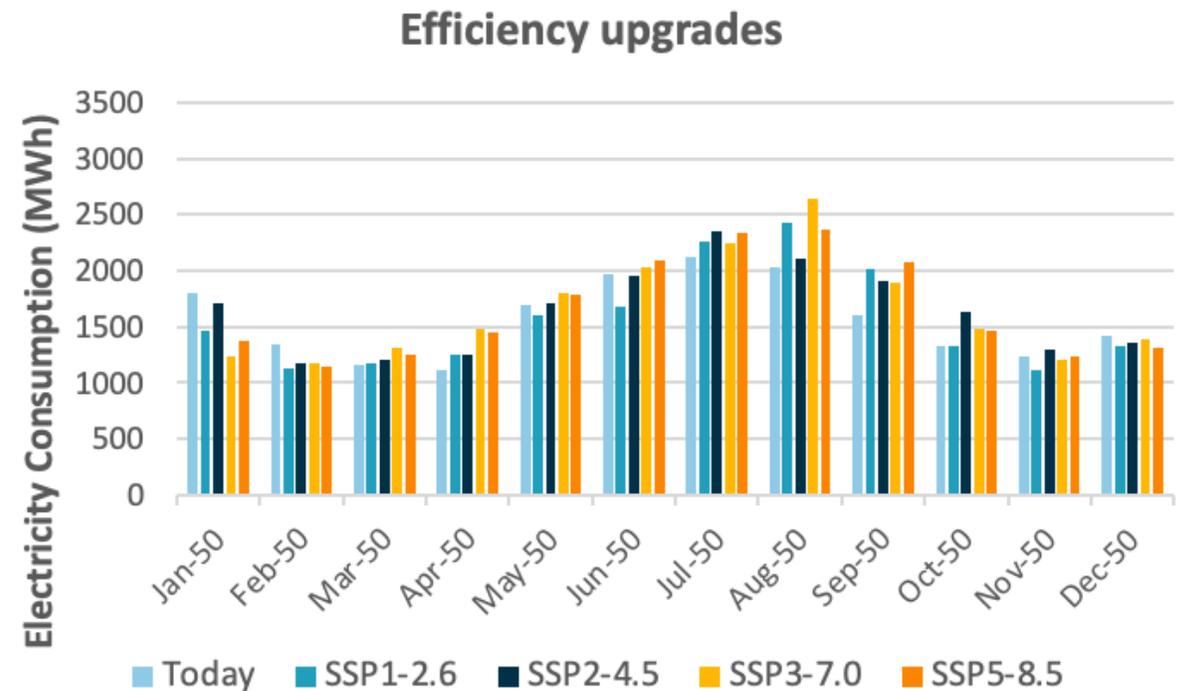
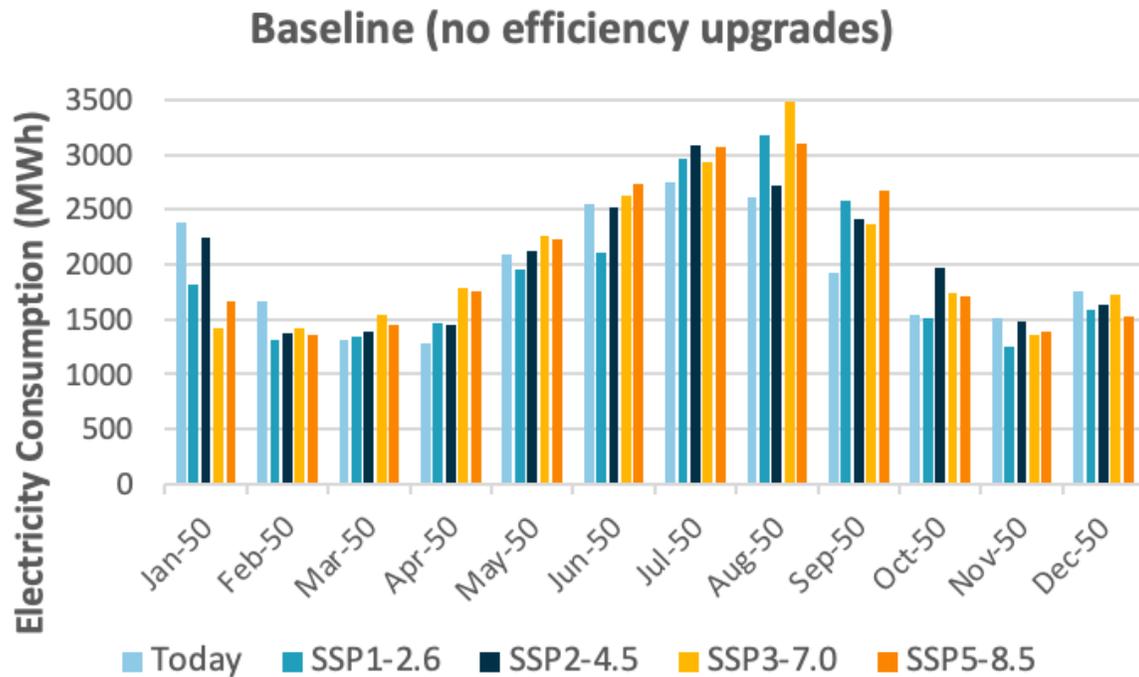
What limitations exist to implement measures that improve resilience of a home?



# Energy saving strategies



# Implementing energy efficiency across Texas can reduce peak demand, grid stress



# Residents experience barriers to participating in weatherization programs

- Paperwork burden
- Need to own home
  - Title issues
  - Landlords can be difficult, renters at disadvantage
- Need to be up-to-date on taxes
- Need weatherization-ready homes
  - Many homes get deferred for maintenance, especially roof repair

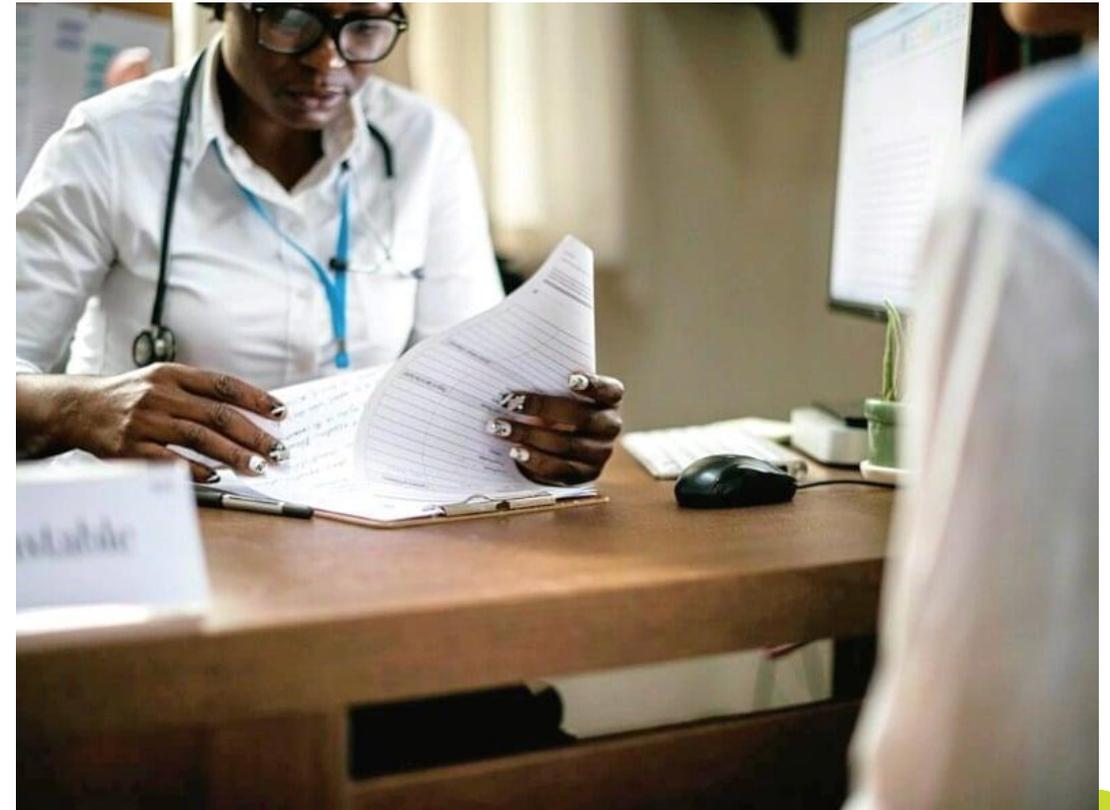
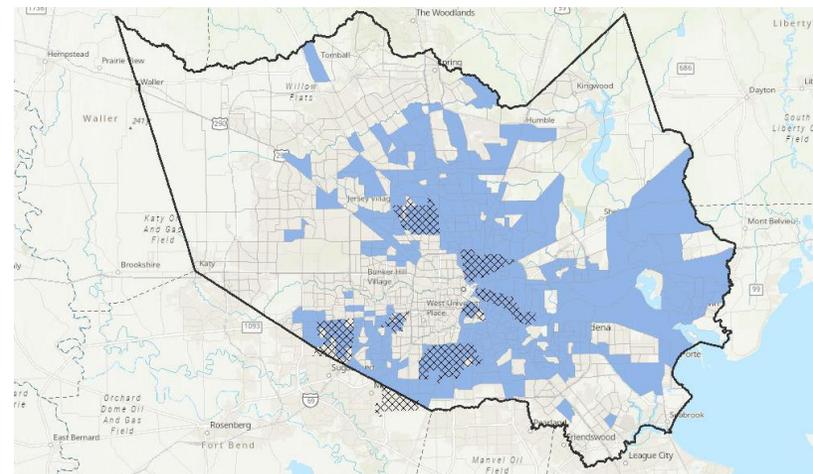
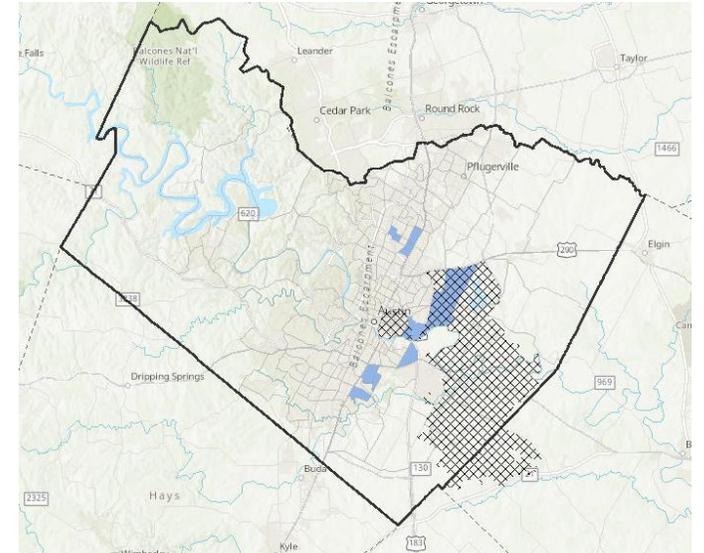


Image source: MGMA



# HARC and Texas partners are aiming to improve weatherization in Texas

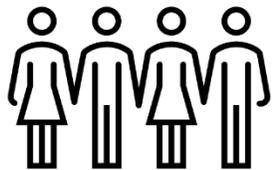
- Partners:
  - CEER, Frontier, Baker Ripley, SPEER, TEPRI
  - Support from local government and nonprofits
- Based in Harris and Travis Counties, meant to be scaled
- 3-year program



# Weatherization project goals

- Build online portal and community navigator process to connect residents to community resources
  - Train and employ 10 Community Navigators
- Get more homes weatherization-ready
  - Repair, taxes, title
- Incorporate climate-readiness into weatherization
  - Education, healthy homes training
- Increase homes weatherized

Co-Production  
Model



Community Navigator  
Model



Climate Proof Training  
Model



Weatherization  
Eligibility Tool



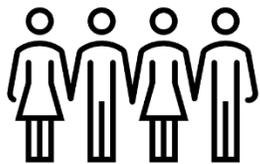
Web-Based  
Coordination  
Platform



# Online portal and community navigator process to connect residents to community resources

- Co-production model – community-based
  - Working w/ cities, counties, local nonprofits, residents
- Train and employ 10 community navigators
- Eligibility tool
- Weatherization Coordination Platform

Co-Production Model



Community Navigator Model



Weatherization Eligibility Tool



Web-Based Coordination Platform



# Get more homes weatherization-ready

- Repair
  - Is the home in good condition or will it be deferred for maintenance?
- Title
  - Who owns the home?
  - Some homes passed down through family w/ no will or deed
- Tax
  - Is tax owed on the home?



Image source: Home Depot



Image source: deeds.com



Image source: KTVE



# Incorporate climate-readiness into weatherization

- Education
- Healthy Homes Training
- Climate Proof Training Model

Climate Proof Training  
Model



Image source: NOAA Climate.gov



# More homes weatherized



Image source: Dallas Morning News



# Project Impact

- Improve quality of life and health of residents
- Lower energy burden
- Make homes healthier
- Improve energy understanding to ensure long-term energy savings
- Trained, educated team of community navigators to ensure long-term sustainability of the weatherization program



Margaret Cook, PhD

[mcook@harcresearch.org](mailto:mcook@harcresearch.org)

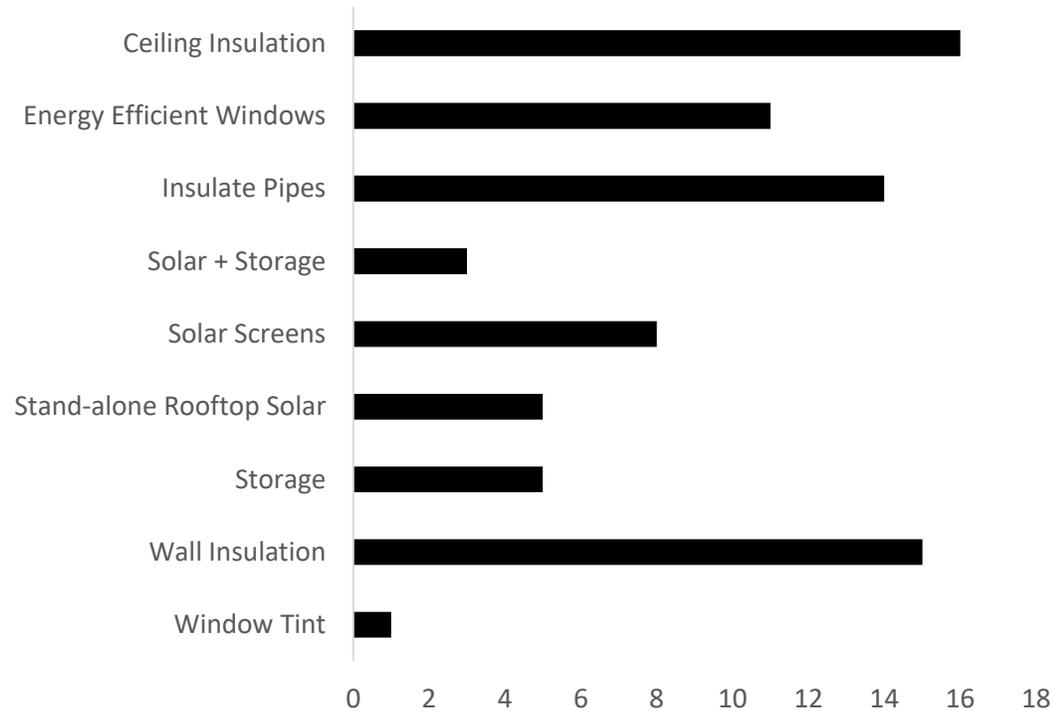
# FOLLOW & CONNECT



**@HARCresearch.org**

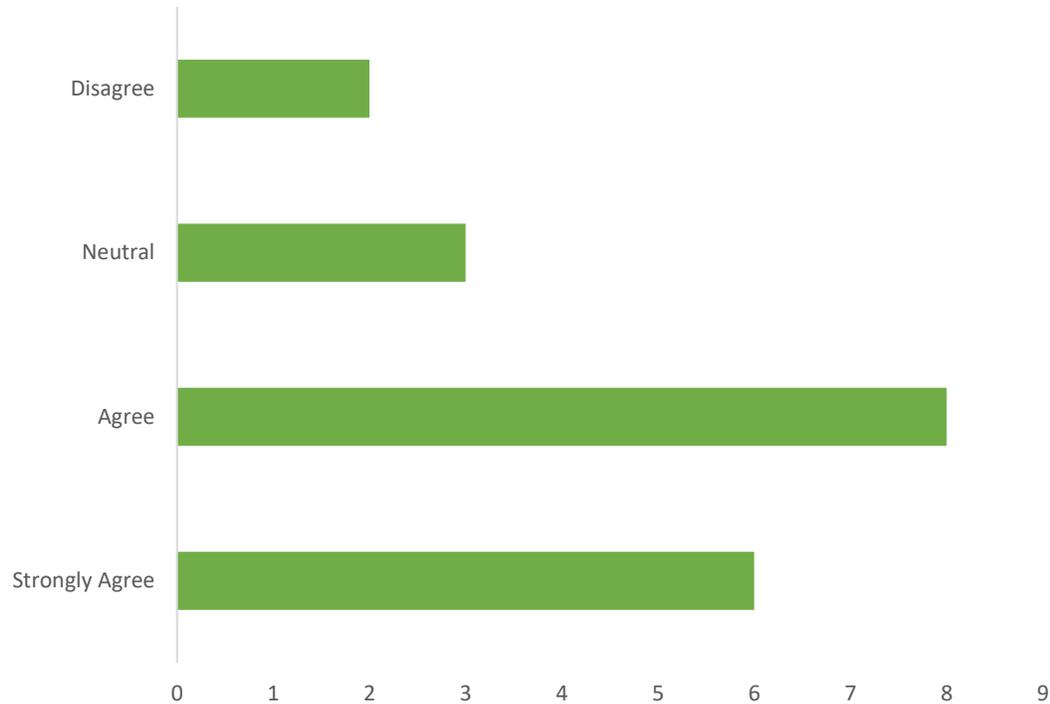
# HARC surveyed utilities about weatherization recommended strategies

Under existing regulatory and programmatic guidelines, what measures can be prioritized to improve resilience of a home?

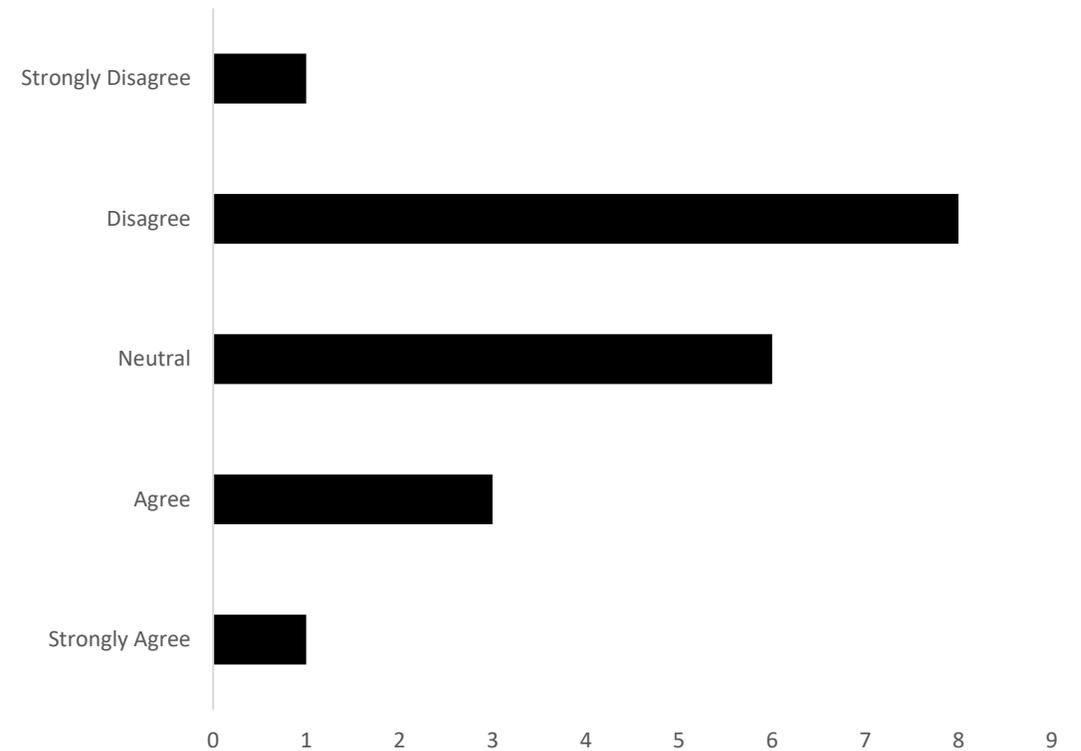


# HARC surveyed utilities about weatherization barriers

Utilities should play a larger role in ensuring a weatherized home is not only more efficient but is also more resilient



My organization is able to incorporate more resilience measures without regulatory or program changes



# **Weatherization Assistance Providers Panel**

**Moderator: Katherine Barnett, City of Denton**

# **Benefits to Communities and the Environment Panel**

**Moderator: Mendie White, City of Lewisville**

# Funding and Assistance Opportunities

# ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANTS

The Department of Energy (DOE) has opened the [Energy Efficiency and Conservation Block Grant \(EECBG\)](#) Program. The program is accepting applications on a rolling basis through January 2024. The first opportunity to apply ends April 28, 2023. Please see the [EECBG Application Hub](#) to find out if your entity is eligible and to submit the application.

Eligible activities include energy efficiency and conservation projects including energy planning, renewable energy, electric vehicles, community electric infrastructure, and workforce development.

See the [EECBG Program Application Instructions](#) document in the [Application Hub](#) for more information.

# PRELIMINARY ENERGY ASSESSMENTS

The State Energy Conservation Office (SECO) offers free Preliminary Energy Assessments (PEAs) for public entities interested in cost effective ways to reduce their energy consumption.

The PEA includes an analysis of building energy and cost utilization indices, recommended maintenance procedures and capital energy retrofits, EnergyStar Portfolio Manager utilization, the development of an energy management policy or plan, and more.

For more information and to apply for the free PEA offered by SECO, see their website here: [Preliminary Energy Assessments \(texas.gov\)](https://www.seco.texas.gov/pea).

# CLIMATE POLLUTION REDUCTION GRANTS

The EPA's new [Climate Pollution Reduction Grants](#) (CPRG) will provide grants to states, territories, tribes, air pollution control agencies, and local governments to **develop and implement plans** for reducing greenhouse gas emissions and other harmful air pollution.

## **\$250 Million for Planning Grants**

Eligible uses include developing or supporting development of climate plans. This can include staff time to develop a climate plan, contracting an entity to inventory greenhouse gas emissions, and conducting stakeholder engagement.

**Entities interested in receiving funds must provide the EPA with a notice of intent to participation by March 31, 2023.**

## **\$4.6 Billion for Implementation Grants**

Funding for implementation is expected to open later this year and applications will be due in the first quarter of 2024.

# UPCOMING NCTCOG MEETINGS AND EVENTS

## **Oncor Clean Fleet Partnership Program Webinar**

**Date:** Wednesday, March 22<sup>nd</sup>

**Time:** 1:00 – 2:30 PM CT

**Where:** NCTCOG Transportation Council Room at 616 Six Flags Drive, Centerpoint Two, Arlington, TX 76011 and via Zoom

**RSVP:** [Oncor Clean Fleet Partnership Program Webinar | DFWCC 2021](https://www.dfwcleancities.org/dfwcc2021/dfwcc2021-oncor-clean-fleet-partnership-program-webinar)  
([dfwcleancities.org](https://www.dfwcleancities.org))

## **Electric Vehicle Workforce Development Stakeholder Session**

**Date:** March, exact date TBD

**Where:** NCTCOG Transportation Council Room at 616 Six Flags Drive, Centerpoint Two, Arlington, TX 76011 and via Zoom

**RSVP:** Check [DFW Clean Cities Events](https://www.dfwcleancities.org/dfwcc2021/dfwcc2021-oncor-clean-fleet-partnership-program-webinar) for updates or email [gcolony@nctcog.org](mailto:gcolony@nctcog.org) for more information



# CLIDE

Celebrating Leadership In Development Excellence  
*Awards 2023*

Applications accepted February 1– March 10, 2023

[www.developmentexcellence.com](http://www.developmentexcellence.com)





# CLIDE

Celebrating Leadership In Development Excellence

The Celebrating Leadership in Development Excellence (CLIDE) Awards honor development and planning projects that exemplify the region's Principles of Development Excellence which outline a vision for sustainable, livable communities in North Texas. The North Central Texas Council of Governments (NCTCOG) is looking for projects and programs in North Texas that exemplify these principles.

Applications accepted February 1– March 10, 2023

[www.developmentexcellence.com](http://www.developmentexcellence.com)

# Categories for Submittal



## **New Development**

Recognizes developments that are constructed on previously undeveloped sites and successfully exemplify many of the Principles of Development Excellence.

## **Redevelopment**

Recognizes those developments that reuse and/or rebuild existing structures and successfully exemplify many of the Principles of Development Excellence.

## **Special Development**

Recognizes projects that exemplify only a limited number (one or two) of the Principles of Development Excellence, but which are outstanding in their promotion of those selected principles. Projects that exemplify the Environmental Stewardship principle may be highlighted here.

Examples include but are not limited to a sustainable infrastructure project, an energy conservation initiative, an open space or trail project, or a stormwater best management practice (BMP) such as low-impact development (LID).

# Categories for Submittal

## **Raising Public Awareness**

Recognizes an organization and/or individual for educating the public or raising awareness of development excellence. Examples include but are not limited to a media outlet in the North Central Texas region for a story or series or an organization or local government for a public education campaign.

## **Public Policy and Planning**

Recognizes a local government or private/public partnership for implementing a program or policy that facilitates and promotes various aspects of the Principles of Development Excellence. Examples include but are not limited to adopted policies, programs, ordinances, and guidelines (mixed use, open space, natural features protection, public space, historic preservation, design standards, or incentives) that can include a public/private initiative as well as comprehensive, neighborhood, area, or strategic plans.

# STAY INFORMED ON UPCOMING MEETING AND EVENTS

## **North Texas RISE Coalition**

Website: <https://www.nctcog.org/envir/development-excellence/rise-coalition>

Committee Page: <https://www.nctcog.org/envir/committees/regional-integration-of-sustainability-efforts-ris>

## **Upcoming NCTCOG Events**

Environment & Development: <https://nctcog.org/envir/events>

DFW Clean Cities: [www.dfwcleancities.org/events](http://www.dfwcleancities.org/events)

## **NCTCOG's Free E-Mail Lists and Committee Updates**

General: <https://www.nctcog.org/stay-informed?ext=>

Environment & Development: <https://www.nctcog.org/envir/mail>

# NCTCOG Staff Contacts

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[www.nctcog.org/envir/development-excellence/rise-coalition](http://www.nctcog.org/envir/development-excellence/rise-coalition)

[www.nctcog.org/envir/natural-resources/energy-efficiency](http://www.nctcog.org/envir/natural-resources/energy-efficiency)



**Thank you and  
enjoy lunch!**



**City of Dallas**

# **Whole Home Dallas Program Update**

**RISE Coalition  
Weatherization Workshop  
March 2, 2023**

Pharr Andrews, Senior Climate Coordinator  
Rosaerlinda Cisneros, Climate Coordinator  
Office of Environmental  
Quality & Sustainability  
City of Dallas

# Presentation Overview



- Program Purpose
  - CECAP Implementation
  - Climate Resilience
  - Environmental Justice
- Whole Home Dallas
  - Weatherization
  - Energy Efficiency
  - Renewable Energy
- Success Metrics
- Questions



# Program Purpose: CECAP Implementation



**01** | Dallas' **BUILDINGS** are energy-efficient and climate resilient.



B4: Implement a citywide building weatherization program through partnership with community organizations.		
B4	OEQS	Provide ongoing environment and sustainability targeted outreach and education programs to the community
B4	OEQS	Launch a weatherization campaign to raise awareness of benefits of home weatherization upgrades
B4	OEQS	Work with RISE partners to facilitate regional conversations that expand efforts to reduce residential energy burdens
B4	OEQS	Conduct a green job skills pilot to increase the number of qualified people providing weatherization services



**02** | Dallas generates and uses renewable, reliable, and affordable energy.



E3: Continue partnership with public utility companies on an intensive program on renewable energy options.		
E3	OEQS	Implement a Whole Home Weatherization Program resource HUB to connect residents with existing services



# Program Purpose: Climate Resilience



- Dallas residents are seeing more extreme weather due to our changing climate.
- Whole Home Dallas can facilitate access to resources that could lower utility bills, protect health and increase a home's comfort and safety
- Homeowners can take action to make their Whole Home resilient to extreme weather by including home updates like:
  - Weatherization
  - Energy Efficiency
  - Renewable Energy



**WHOLE HOME**  
**DALLAS**



# Program Purpose: Environmental Justice



*U.S. Department of Energy  
measures the average energy  
burden for low-income households  
at 8.6%.*

- Climate change is affecting everyone, but not everyone will be affected equally!
- Housing for our vulnerable communities may be poorly insulated, with less-efficient appliances and structural issues. Leading to wasted energy.
- Racial Equity Plan Target 2.12
  - “Increase residential building efficiency through weatherization, access to clean energy through community solar programs, and reduce energy use in historically disadvantaged communities through other related programs.”



# Whole Home Dallas Program



- Whole Home Dallas helps residents by:
  - **Educating** on benefits of household upgrades.
  - **Connecting** to available programs and resources that are:
    - Income-Based Assistance
    - Rebates & Discounts
    - Tax Incentives



WEATHERIZATION



ENERGY EFFICIENCY



RENEWABLE ENERGY



# Whole Home: Weatherization



## What is Home Weatherization?

Weatherizing aims to improve household resiliency by sealing drafts and protecting the interior from outside conditions.

## What are the benefits of weatherizing your home?

Saves residents on utility bills and makes interior temperatures more comfortable.

## What are weatherization upgrades for your home?



Repairing or Replacing Doors



Caulking



Weatherstripping



Insulation



Energy-Efficient Windows



# What programs are available to help weatherize your home?



## Income-Based Assistance

### DCHHS Weatherization Assistance Program

The purpose of this program is to reduce household energy usage, address health and safety needs, and offer minor home repairs by installing approved weatherization materials.

#### Qualifications/Requirements

Household with a combined gross income at or below 200% of federal poverty level.

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## Rebates & Discounts

## Tax Credits

### Insulation

EnergyStar® Tax Credits are available for primary residences.  
Tax credit for 10% of the cost, up to \$500 (Not including installation).

#### Qualifications/Requirements

Typical bulk insulation products can qualify, such as batts, rolls, blow-in fibers, rigid boards, expanding spray, and pour-in-place. Products that air seal can also qualify, as long as they come with a Manufacturers Certification Statement including weather stripping, spray foam in a can, caulk designed to air seal, and house wrap.

[Visit !\[\]\(78d3b3b49e3dc82d73565ff0fa5d3423\_img.jpg\)](#)

# Whole Home: Energy Efficiency



## What is energy efficiency?

Energy efficiency helps use less energy to get the same job done.

## What are the benefits of making your home energy efficient?

Energy efficient appliances use less energy and can lead to lower utility bills.

## What are energy efficient upgrades for your home?



EnergyStar® Appliances



EnergyStar® Light Bulbs



Programmable Thermostats



Smart Plugs



# What programs are available to help make your home energy efficient?



## Income-Based Assistance

### High-Efficiency Electric Home Rebate Act (HEEHRA)

HEEHRA provides point-of-sale consumer rebates to enable low and moderate income households across America to electrify their homes.

#### Qualifications/Requirements

Low-Income is defined as: <80% Area Median Income(AMI)

Moderate-Income is defined as 80-150% AMI

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## Rebates & Discounts

### Oncor Retail Products Program

Oncor Retail Products Program provides Oncor residential customers with in-store, point-of-sale discounts when they purchase qualifying EnergyStar®-rated LED lighting products and consumer appliances.

#### Qualifications/Requirements

How:

1. Choose your qualifying product
2. Verify you're an eligible Oncor customer
3. Receive a coupon code and use it at checkout

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[Visit !\[\]\(afbc970bc3457ad2e60b755a2604bcfb\_img.jpg\)](#)

## Tax Credits



# Whole Home: Renewable Energy



## What is Renewable Energy?

Renewable energy is “clean energy” made from resources that nature will replace, like wind, water, and sunshine.

## What are the benefits of adding renewable energy to your home?

Leads to less reliance on the power grid and offsets rising electricity costs.

## What are renewable energy sources for your home?



Renewable Electricity Plans



Solar Panels



Solar Energy Storage



Solar-Powered Generator



Solar-Powered Water Heater





# What programs are available to help add renewable energy to your home?

## Income-Based Assistance

## Rebates & Discounts

### Oncor Residential Solar Program

Oncor has an incentive program for residential solar photovoltaic systems. Incentives depend on the size, azimuth, and other factors of the installed system. Programs typically run from January through November on an annual basis.

#### Qualifications/Requirements

Homeowners with Oncor as their electric delivery provider qualify for incentives. New home construction projects are not eligible.

[Visit !\[\]\(9612336da27a48522ca3249f80364abe\_img.jpg\)](#)

## Tax Credits

### Solar Investment Tax Credit

If you install a Solar PV system between 2022 and 2032 you may receive a 30% tax credit. If you install a system in 2033 the credit will decrease to 26% and to 22% in 2034.

[Visit !\[\]\(1e2fac77e0ea9c0e7dc0a6181364759d\_img.jpg\)](#)

### Property Tax Exemption for Renewable Energy Systems

Texas Property Tax Code allows 100% exemption on the increase in assessed value of a property for installing a solar or wind powered energy device..

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# Success Metrics



## Awareness

- Webpage visits
- Video views
- Time spent on website



## Engagement

- Onsite events
- Virtual presentations
- Zip code tracking



## Sharing

- Social media
- Mentions
- Likes



## Action

- Click through rates
- Email inquiries
- Request for assistance

### Anticipated Outcomes:

- Quarterly outreach in high impact equity priority zip codes
- Quarterly 2% increase of webpage visits





**WHOLE HOME  
DALLAS**

**THANK YOU.**





# Oncor Energy Efficiency

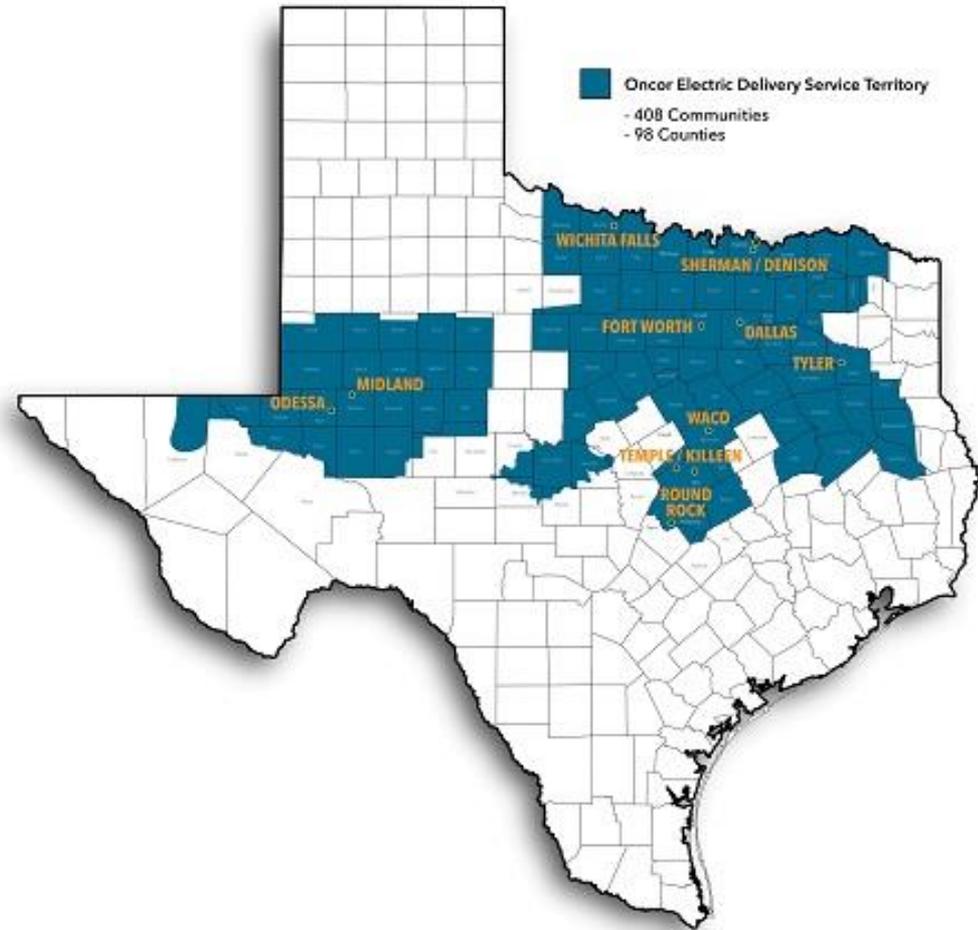
**PRESENTATION FOR**  
**The North Central Texas Council of Governments**  
**(NCTCOG)**

**March 2023**

*DO NOT DISTRIBUTE - FOR GENERAL PRESENTATION USE ONLY  
SOME CONTENT MAY BE OUTDATED OR JUST FOR DISCUSSION PURPOSES ONLY*

## Who Is Oncor?

- Oncor (together with its subsidiaries) operates the **largest distribution and transmission system in Texas**
- Oncor supplies electricity to more than **10 million customers** in a service area of over 400 communities and 98 counties
- Operates in the **U.S.'s highest-growth region in electric demand**, according to the North American Electric Reliability Council (NERC)



# Energy Efficiency Portfolio



Annual Budget

\$50

Million

<b>Residential</b>	<ul style="list-style-type: none"><li>• Home Energy Efficiency</li><li>• Retail Products</li><li>• Residential Solar PV</li><li>• <b>New Homes Construction</b> ★</li></ul>
<b>Low Income</b>	<ul style="list-style-type: none"><li>• Hard to Reach</li><li>• Targeted Low Income</li></ul>
<b>Commercial</b>	<ul style="list-style-type: none"><li>• Commercial Standard Offer</li><li>• Small Business Direct Install</li><li>• <b>Commercial HVAC Distributor</b> ★</li><li>• <b>Strategic Energy Management</b> ★</li></ul>
<b>Load Management</b>	<ul style="list-style-type: none"><li>• Residential Load Management</li><li>• Commercial Load Management</li><li>• <b>Winter Emergency Load Management</b> ★</li></ul>

New Program ★

# What Is Energy Efficiency?

## Energy CONSERVATION

- Energy conservation is any behavior that results in the use of less energy.
  - Example: Turning lights off to save energy.

## Energy EFFICIENCY

- Energy efficiency is using technology that requires less energy to perform the same function.
  - Example: Installing efficient lighting, such as LEDs, to save energy.



# How Does Oncor Pay for Energy Efficiency Programs?

Programs are paid for using rate payer funds collected by an **Energy Efficiency Cost Recovery Factor (EECRF) §25.182.**

- Amounts for each rate class vary
- What is spent in a rate class is collected from the rate class



# Residential Energy Efficiency Programs

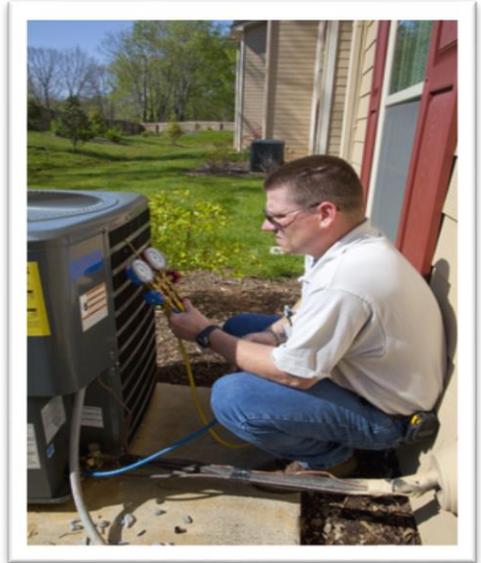
## Home Energy Efficiency (HEE)

- HEE Program provides incentives to approved participating service providers who implement energy saving projects, such as insulation, and HVAC upgrades.
- Incentives are designed to help lower the overall cost to the customer for the energy efficiency improvement.

## Low-Income Weatherization (LIW)

- The LIW Program offers incentives to approved participating service providers who implement qualifying energy saving projects for residential customers with income levels at or below 200 percent above the federal poverty guidelines.

## Heating and Cooling



## Insulation



## Residential Programs

Residential Programs	Description
Home Energy Efficiency Program	<ul style="list-style-type: none"> <li>• HVAC equipment (retrofit &amp; new construction)</li> <li>• Insulation (Attic &amp; Wall)</li> <li>• Home weatherization</li> <li>• Energy Star windows and appliances</li> <li>• Radiant Barrier</li> <li>• Single family and Multifamily dwellings are eligible</li> </ul>
Low Income Weatherization Program	<ul style="list-style-type: none"> <li>• Focused on homes with a household income at or below 200% above the federal poverty guidelines</li> <li>• Same measures as the Home Energy Efficiency Program</li> </ul>
Residential Solar Program	<ul style="list-style-type: none"> <li>• Incentives for photovoltaic systems on homes in Oncor's service area.</li> <li>• Minimum system size is 1 kW DC</li> <li>• Maximum system size is 10 kW DC</li> </ul>



[www.oncor.com/takealloadoftexas](http://www.oncor.com/takealloadoftexas)



**DO YOUR PART**

TO TAKE A LOAD OFF THE TEXAS POWER GRID WITH THE HELP OF THESE SIMPLE TIPS — THEN WATCH THE SAVINGS STACK UP.

Thank you for your interest in Oncor's Energy Efficiency Programs. We hope these simple tips will help you get started in becoming more energy efficient.

Want to learn more?  
Check out  
[www.oncor.com/takealloadoftexas](http://www.oncor.com/takealloadoftexas)



**WEBSITE SOURCES**

[eere.energy.gov](http://eere.energy.gov)  
[h2oconserve.org](http://h2oconserve.org)  
[epa.gov](http://epa.gov)  
[energy.gov/energysaver](http://energy.gov/energysaver)

# Energy Efficiency Tips

**ONCOR'S TAKE A LOAD OFF, TEXAS®**

PROGRAMS ARE DEDICATED TO HELPING TEXANS SEE HOW SAVING ENERGY MAKES CENTS. FOLLOW THESE SIMPLE TIPS, AND YOU CAN START SAVING TODAY.





## YOU HAVE THE POWER ENERGY EFFICIENCY STARTS WITH YOU

### Heating & Cooling

Energy efficiency is in the air. Your heating and cooling system is the perfect place to start when making energy-saving changes.

- Install a programmable thermostat.
- Set thermostats to 78 degrees Fahrenheit in summer and 68 degrees in winter.
- Keep air vents open to increase circulation.
- Use fans to cool your home.
- Have your A/C and heating system serviced twice a year (during spring and fall).
- On a new A/C unit, look for a 16 Seasonal Energy Efficiency Rating (SEER) and 12 Energy Efficiency Rating (EER) rating.
- Clean or replace air filters once a month.

### Insulation

With the proper insulation, you can keep your heating and cooling system from working overtime.

- Insulating your attic can reduce your heating and cooling needs up to 30 percent.
- The minimum recommendation for insulation amount in most attics is R-34 to R-38, or about 10 to 17 inches, depending on the insulation type.

### Lighting

Conserve energy with the flip of a switch by choosing the correct lighting.

- Install compact fluorescent light bulbs or LED (lighting emitting diodes). They use approximately 70 percent less energy than an incandescent bulb and last up to 10 times longer.
- Use sunlight to illuminate your home. It's free!

### Air Leaks

Controlling air flow helps control your savings. Properly sealing air leaks can significantly reduce your heating and cooling costs.

- Caulk and seal air leaks where plumbing, ducting, or electrical wiring comes through walls, floors and ceilings.
- Install foam gaskets behind outlets and switch plates on exterior walls to stop air from leaking.
- Consider foam sealant on larger gaps around windows and baseboards where air may leak out.

### Doors & Windows

Close the door on air leaks for good. By focusing on two of the top spots for gaps in your home, you'll be one step closer to an energy-efficient home.

- Weather-strip and caulk around windows and doors to prevent drafts. A gap of just one-quarter inch can let in as much air as a softball-size hole.
- Consider ENERGY STAR®-qualified window models and low E-Glass windows. Their special coating will reflect infrared light, keeping heat in during winter and out during summer.
- A low-cost alternative to new windows is installing solar screens.

### Appliances/Electronics

Get plugged in to an energy-efficient home with appliances and electronics that are designed to conserve.

- Appliances and electronics can account for 20 percent of a home's electrical costs. Replace old appliances with ENERGY STAR®-rated models.
- Unplug electronics when they're not in use. Certain electronics, such as a cell phone charger, continue to draw electricity when left plugged in – even if they're not in use.

### Water

Shower yourself in savings by making small changes to your home's water system.

- Fix leaking faucets. They can cost you 20 gallons of water a day.
- Set your water heater temperature at 120 degrees Fahrenheit to save on water heating.
- Insulate the hot water heater and your heating and cooling pipes that are not in enclosed areas. It can reduce heat loss by 25 to 40 percent.

### Trees

Trees are a natural solution for energy-efficient changes. Remember: When planting a tree, type and location are key.

- Proper tree placement can reduce home heating and cooling costs by 20 percent. Plant trees 35 feet from your house and 25 feet from power lines.
- Plant deciduous trees (trees that lose their leaves). They will shade your house in summer, and help warm your home in winter by letting light through.

# How do I Participate? Take A Load Off Texas (TALOT) Website

Any Oncor served customer can participate in the Oncor programs.

[www.takealoadofftexas.com](http://www.takealoadofftexas.com)





**THANK YOU!**

**Oncor Energy Efficiency**

# Weatherization

Impactful, Easy and Cost Effective



**North Central Texas Council of Governments**

**Regional Integration of Sustainability Efforts Coalition (RISE)**

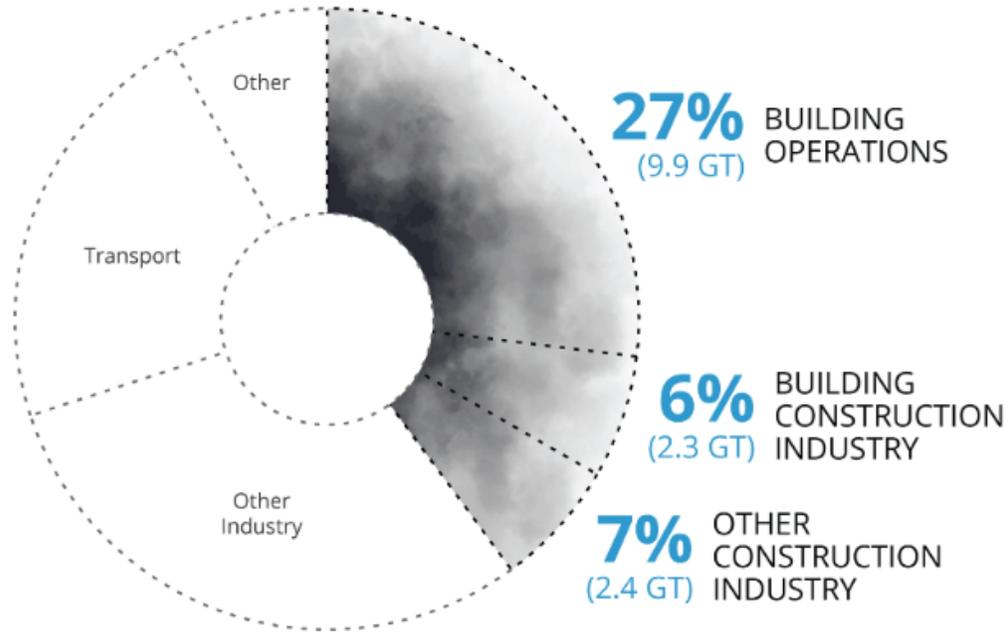
2 March 2023

**Julie Hiromoto, FAIA, WELL AP,  
Living Future Accredited, LEED AP**

**How does weatherization support sustainable, resilient communities?**

# Impact of Buildings

Annual Global CO<sub>2</sub> Emissions



**The built environment generates 40% of annual global CO<sub>2</sub> emissions.**

Of those total emissions, building operations are responsible for 27% annually, while building and infrastructure materials and construction (typically referred to as embodied carbon) are responsible for an additional 13% annually.

© Architecture 2030. All Rights Reserved. Data Source: IEA (2022), Buildings, IEA, Paris

*Building Construction Industry and Other Construction Industry represent emissions from concrete, steel, and aluminum for buildings and infrastructure respectively.*

**What is the national or even global  
conversation on weatherization like right  
now?**

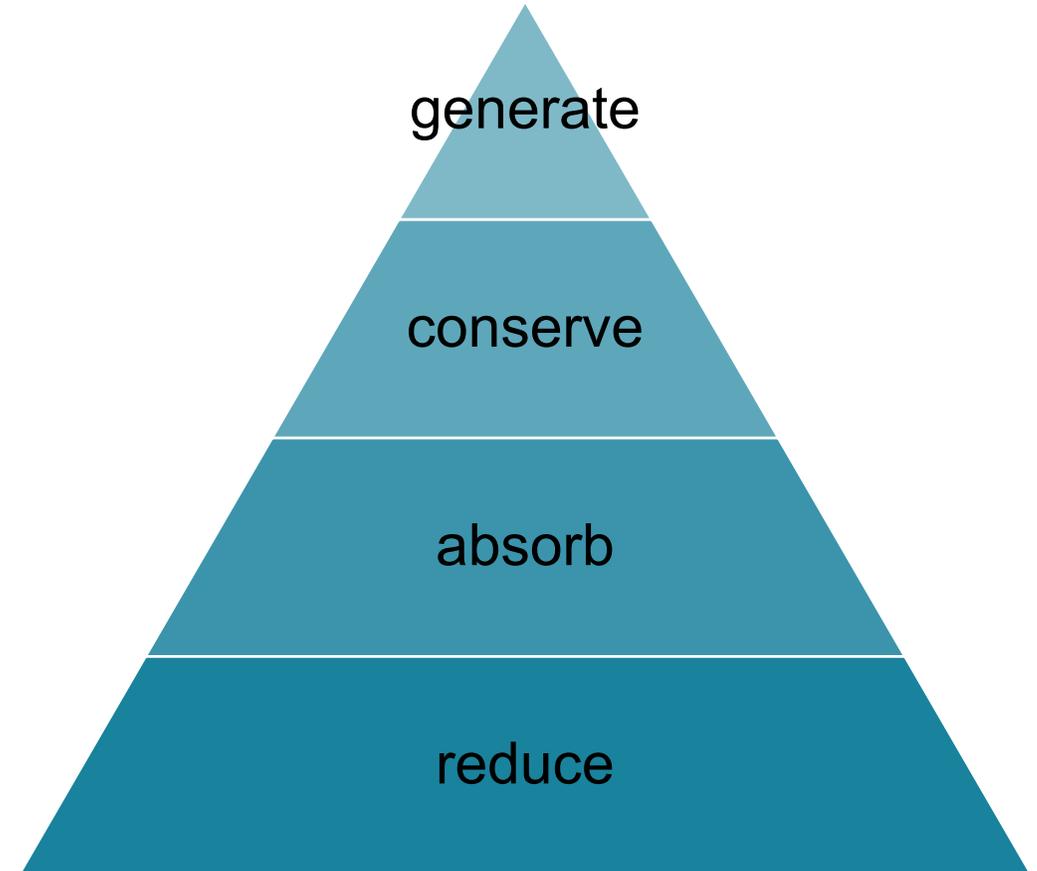
# ESG IN DESIGN



# Start with the Fundamentals, then Build

## Weatherization

- Good smart design
- Passive House strategies- super insulated, low infiltration
- Cannot shift and store energy in a leaky building



**Are there concerns associated with weatherization, or the lack of weatherization, in commercial or multifamily buildings?**

# Existing Building Stock

In 2040, **2/3 of the global building stock** will be buildings that exist today.  
Without upgrades, they will still be emitting GHGs.



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Data Source: IEA Energy Technology Perspectives 2020, February 2021 Revised Edition

**In 2040 approximately 2/3 of the global building stock will be buildings that exist today.**

Without widespread existing building decarbonization across the globe, these buildings will still be emitting CO2 emissions in 2040 and we will not achieve the Paris Agreement's 1.5°C target.

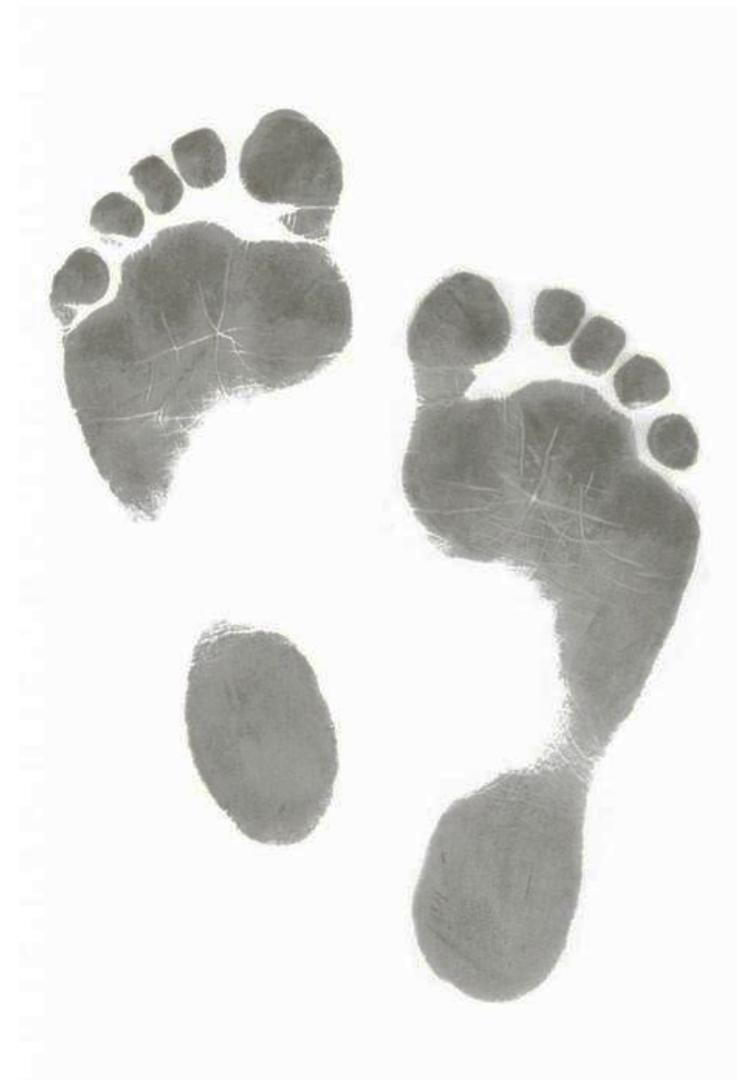
Achieving zero emissions from the existing building stock will require leveraging building intervention points to accelerate the rate of energy upgrades (increasing energy efficiency, eliminating on-site fossil fuels, and generating and/or procuring 100% renewable energy).

Actions for Existing Building

**How can weatherization standards be incorporated into public policy at any level of government?**

# Your personal footprint

- Low carbon lifestyle- diet, electric vehicle, human-powered movement (walking/ cycling)
- Resource efficiency- water, energy
- Waste management- limit single-use disposables
- Local lifestyle- plant a garden, grow pollinators for species biodiversity, support local businesses
- Volunteering your personal time or making financial donations



# Your influence (handprint)

- Your professional work
  - Project outcomes and impact
  - Personal learning and process change
  - Knowledge sharing and shifting 'business as usual'
- Advocacy and activism to align baseline (bare minimum) expectations and incentives
  - Clients
  - Consultants
  - Communities
  - **Policy makers**



**How do we as sustainability professionals increase buy-in from our elected officials on weatherization and energy issues?**



## Three Surprising Ways Architects Are Working with Mayors to Build Communities

[Learn more >](#)

**Sign up for campaign emails.**

[Join our email list >](#)

We'll email you periodically with articles and resources about fighting climate change and

<https://blueprintforbetter.org/>

## Architects making a difference

# AIA 2030 Commitment

- 1000+ signatories
- 11 years of aggregated reporting, since 2010
- 2021 key takeaways:
  - 20,653 projects, 417 firms
  - 3.1B gsf whole-building projects
  - 5.5% met the 80% reduction target
  - 505 all-electric buildings (67% increase from 2020)
  - 276 net zero (2.1% of portfolio)
  - 7,867 interiors projects (24% increase from 2020)- average 32.5% pLPD reduction

## 2030 BY THE NUMBERS

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The 2019 summary of  
the AIA 2030 Commitment

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<https://www.aia.org/pages/6464938-the-aia-2030-commitment>

## AIA Equity in Design Resources

- AIA Guides to Equitable Practice
- Diversity in the Profession of Architectural executive summary, 2016
- Equity by Design Key Metrics, 2016
- Women's Leadership Summit
- The Elephant in the (Well-Designed) Room- Bias in the Architecture Profession
- Framework for Design Excellence- Design for Equitable Communities
- Pathways to Architecture
- Leadership Development

# Architect's Role in Creating Equitable Communities

September 2022





...ING: This product  
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vapor yet  
@VUSE|AIT

 [Julie\\_Hiromoto](#)

 [Jhiromoto](#)

[www.hksinc.com](http://www.hksinc.com)

 <https://blueprintforbetter.org>

**Pacific Plaza Pavilion**  
Dallas, Texas