



# **Resiliency, Energy Efficiency, and Sustainability Fund (REES) and Urban Heat Island Initiative**

**City Council Special Session**

***May 9, 2024***

***Presented by: David McCary, ACM & Douglas Melnick, CSO***



# Agenda



- SA Climate Ready Background
  - A Plan of Action
- REES Fund Overview
  - SA Climate Ready Community Action Fund
  - Community-Based Climate Resilience Programs
  - Grants Update
  - Urban Heat Island Mitigation Initiative
- CPS Energy Update



# SA CLIMATE READY: A PATHWAY FOR CLIMATE ACTION & ADAPTATION



Adopted by City of San Antonio City Council  
October 17, 2019



## SA Climate Ready

- The 2019 Climate Action and Adaptation Plan (CAAP) is the City's roadmap to achieve carbon neutrality and to adapt to current and future climate impacts.
- It will be updated in 2024 - 2025 as part of the Climate Pollution Reduction Grant (CPRG) regional planning initiative.
- Greenhouse Gas Emissions have been declining but need to be accelerated to meet targets.

# SA Climate Ready: A Plan in Action

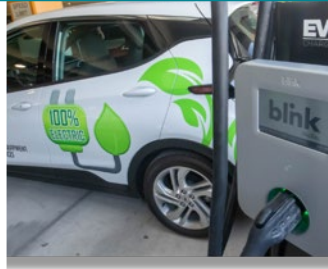
## Energy



13 MW  
Municipal Solar  
Project

No Coal in  
CPS Portfolio  
by 2028

## Transportation



51 EVs in  
CoSA Fleet  
(100 by 2025)

Community-  
wide EV  
Chargers

## Circular Economy



Deconstruction  
Ordinance

Organics  
Diversion  
Programs

## Healthy Ecosystems



Urban Heat  
Island  
Mitigation

EquiTree  
Program

## Adaptation



Resilience  
Hubs

Utility Climate  
Change  
Preparedness

## Educate & Empower



Mayor's Youth  
Engagement  
Council for  
Climate  
Initiatives

CoSA Climate  
Training



# FY 24 Resiliency, Energy Efficiency, & Sustainability Fund (REES) Initiatives

## Grants to Community Organizations

- Community Sustainability Grants
- Community-Based Climate Resilience Programs
- Grassroots Engagement
- OLLU Technical Support

## Urban Heat Island Mitigation

- Urban Heat Island Mitigation Program
- Low Income Weatherization
- EquiTree

## Business Incentives

- Business Urban Heat Island & Sustainability Incentive Program

## Leveraging Grant Opportunities

- Funding to support potential grant climate and resilience grant opportunities

# Grants to Community Organizations: SA Climate Ready Community Action Fund

- **FY24 Budget** - \$1,000,000
- **OBJECTIVE:** Support community climate action by providing grants up to \$20K for neighborhood and community organizations.
- Projects should have measurable community benefit and be consistent with SA Climate Ready Plan.
- Grant proposals include a bike commuting support program, community gardens, and solar projects.
- **Status:** 1<sup>st</sup> grant application period closed April 30, 2024. Extended to May 20, 2024.

## Neighborhood and Community Grants Program



- **FY24 Budget** - \$125,000
- **OBJECTIVE:** Provide Community-Based Organization (CBO) direct support for grassroots, equity-based climate engagement.
- Provides the opportunity to leverage CBOs in a two-way dialogue with communities in climate conversations.
- Engagement may include community-led workshops, communication campaigns, trainings, special events, etc.
- **Status:** Grant applications open May 1 – 31, 2024.

## Grassroots Engagement Program



# Grants to Community Organizations: Community-Based Climate Resilience Programs

- **FY24 Budget** - \$300,000
- **OBJECTIVE:** Provide capacity building and financial support to CBOs to increase community climate resilience.
- **Status:**
- Launched Climate Ready Neighborhood Network & working with inaugural CBO cohort.
- Developing Neighborhood Field Guide to assess CBO climate resilience readiness & provide engagement guidance.
- Mini-grants to cohort members will be disbursed Summer - Fall 2024.

## Community-Based Organization Resilience Network



- **FY24 Budget** - \$825,000
- **OBJECTIVE:** Identify and implement priority Urban Heat Island and climate resilience projects through an expedited grassroots planning process.
- **Status:**
- Selected Quintana Neighborhood for pilot
- Formalized partnership with Fuerza Unida as CBO convener.
- Community engagement beginning in May 2024 and potential resilience projects identified Fall 2024.

## Low-Income Neighborhood Resilience Pilot





# Business Incentives:

## Business Urban Heat Island Mitigation & Sustainability Grant Program

- **FY24 Budget** - \$1,500,000
- **OBJECTIVE:** Support business climate action by providing grants up to \$20K for projects with measurable impact and that are consistent with the SA Climate Ready Plan.
- UHI Related Proposals include Greenspace Projects, Native Plant Gardens, Rooftop Solar & Solar Covered Parking, and Energy Efficiency Upgrades
- Special focus on small MWBEs.
- **Status:** 1<sup>st</sup> grant application period closed April 30, 2024. Extended to May 20, 2024.





# Grant Update: Solar For All (SFA)



## TX Solar For All Coalition

- CoSA is a member of the Texas SFA Coalition
- Awards announced on April 22, 2024
- TX SFA Coalition Award: \$249.7M
- **San Antonio Recipients**
  - CoSA
  - Opportunity Home
  - Amounts pending discussions with EPA
- **Next Steps**
  - Contract negotiations between Harris County, the TX SFA Coalition, and the EPA.

## CoSA TX SFA Program Elements

- Solar program will provide direct financial benefit to low-income and energy burdened households.
- Distributed Solar installations on residential rooftops and/or parking lots.
- Includes potential for battery storage at residential and community locations.
- Program design will include community and stakeholder input.
- Workforce Development funding is included in the grant awards.



**SUSTAINABILITY**



# Grant Update: Energy Efficiency Block Grant

\$1.2M formula grant

- Airport Energy Master Plan
- Opportunity Home (OH) Partnership
  - Multi-Family EV Charging
  - Low-Income E-Bike Rebate Program
- Application Submitted
- Next Steps
  - Awaiting USDOE Approval
  - MOU with OH
  - Summer FY24 Launch





# Grant Update: US EPA Climate Pollution Reduction Grant (CPRG)

## CPRG Planning Grant - \$1M

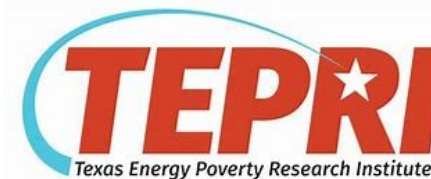
- **13-County Regional Climate Action Plan**
  - Priority Climate Action Plan approved by the EPA March 1, 2024.
  - Comprehensive Climate Action Plan (CCAP) led by AACOG: 2024-25
- **SA Climate Ready Plan Update**

## Implementation Grant

- Application submitted April 1, 2024
- July 2024 Expected Award Notifications
- Lead Agency: CoSA Office of Sustainability
- Partnership with CPS Energy, SAWS, and TEPRI
- \$164,131,870 request for 102.5 MW of low-income community solar and on-site solar at SAWS H2Oaks facility.



**SUSTAINABILITY**



# SA Climate Ready Plan Update

**“This plan will be reassessed and updated every three to five years from the adoption date” – 2019 CAAP, p. 52**

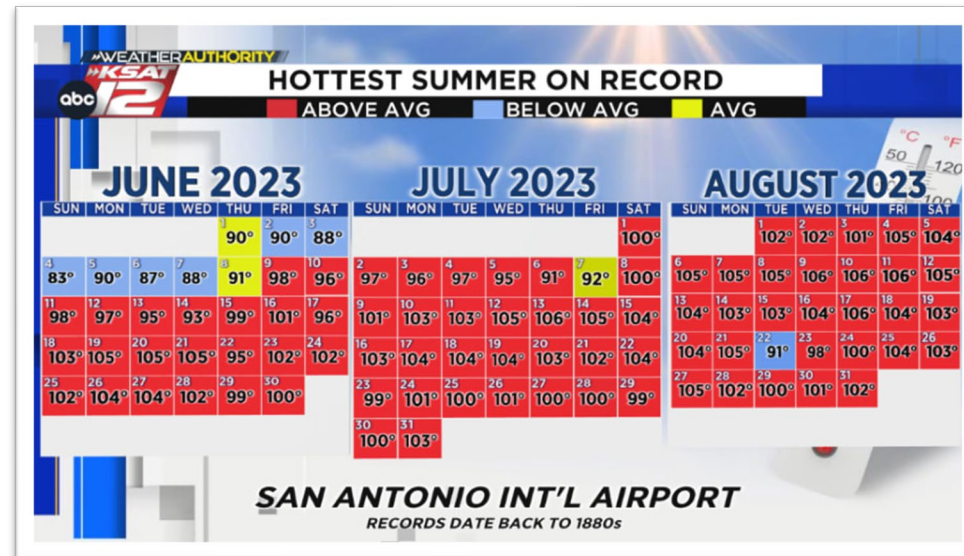
## Scope of Work

- Input and guidance provided by the SA Climate Ready Advisory Committee and Technical Subcommittees
- Communications and engagement campaign
- Implementation assessment of 2019 CAAP
- Update Greenhouse Gas Reduction Targets based on current climate science
- Update and Prioritize Community & Municipal Climate Mitigation Strategies
- Develop prioritized implementation plan with a focus on leveraging federal funding opportunities
- Climate Equity Framework
- Timeframe: April 2024 – June 2025



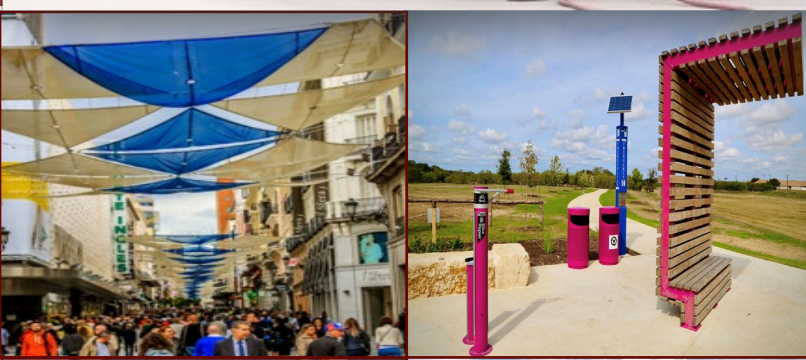


# Climate Impact Example: Record Breaking Heat



Year	Rank	Days >= 100 °F
2023	1	75
2022	3	58
2021	83	3
2020	12	36
2019	42	17
2018	25	27
2017	47	15
2016	75	6
2015	53	12
2014	45	16

2018 SA Climate Ready Mid-Century (2041-2070) Projections for days  
over 100 degrees – 61 days



# Urban Heat Island Initiative: Overview

- Ongoing initiative to plan and implement **coordinated heat mitigation infrastructure measures** such as green infrastructure, shade structures, water features, energy efficiency, and cool materials.
- **Multi-year pilots** coupled with research.



## FY 2023

- Installation and testing of cool pavement in each council district.
- City-wide UTSA heat and equity mapping



## FY 2024

- Heat Story Board
- UTSA Top 10 census block identification
- Cool Neighborhood Pilot Program
- PW Cool Pavement Utilization: Additional deployment and research



# Heat Story Board:

Resident communication tool for Urban Heat Island efforts.

https://storymaps.arcgis.com/stories/355b3b8911a644ed90d5571d6a60578a



SA Hot Spots

## Heat in San Antonio

It's inescapable: Extreme heat is here. The Earth is getting hotter due to human activities such as deforestation and the burning of fossil fuels, a trend felt acutely in San Antonio. In 2023, high temperatures reached at least 100 degrees on 75 days, shattering the city's previous record of 59 triple-digit days in 2009. By the end of the century, the city will regularly experience 55 to 100 days a year with high temperatures above 100 degrees, according to the [SA Climate Ready plan](#).



News for you

15



# Urban Heat Island: Cool Pavement Pilot Results

10 installation sites, one in each council district.

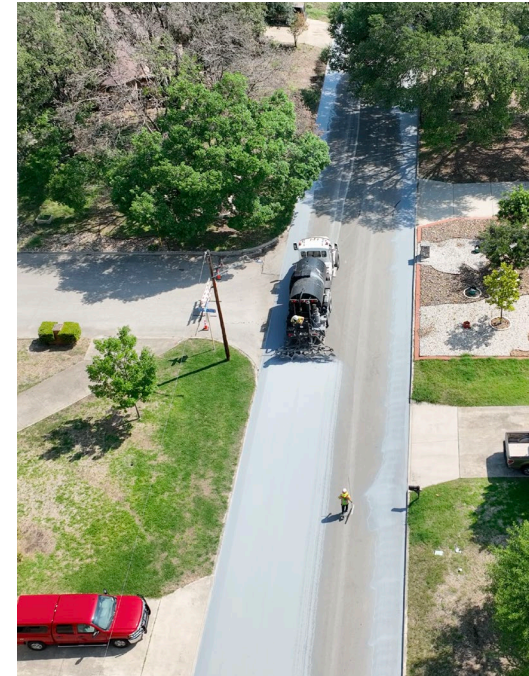
Four (4) products tested: Pave Tech, GAF Streetbond, GuardTop, and Seal Master.

## Performance results:

- Seal Master SolarPave product had the most notable reductions in surface temperatures (3.58°F) compared to control sites.
- **The maximum surface temperature reduction observed relative to fresh asphalt was 18°F.**
- Seal Master provided the best adhesion strength, supporting its longevity on pavement surfaces.
- Products met safety specifications and can extend the life of pavement.

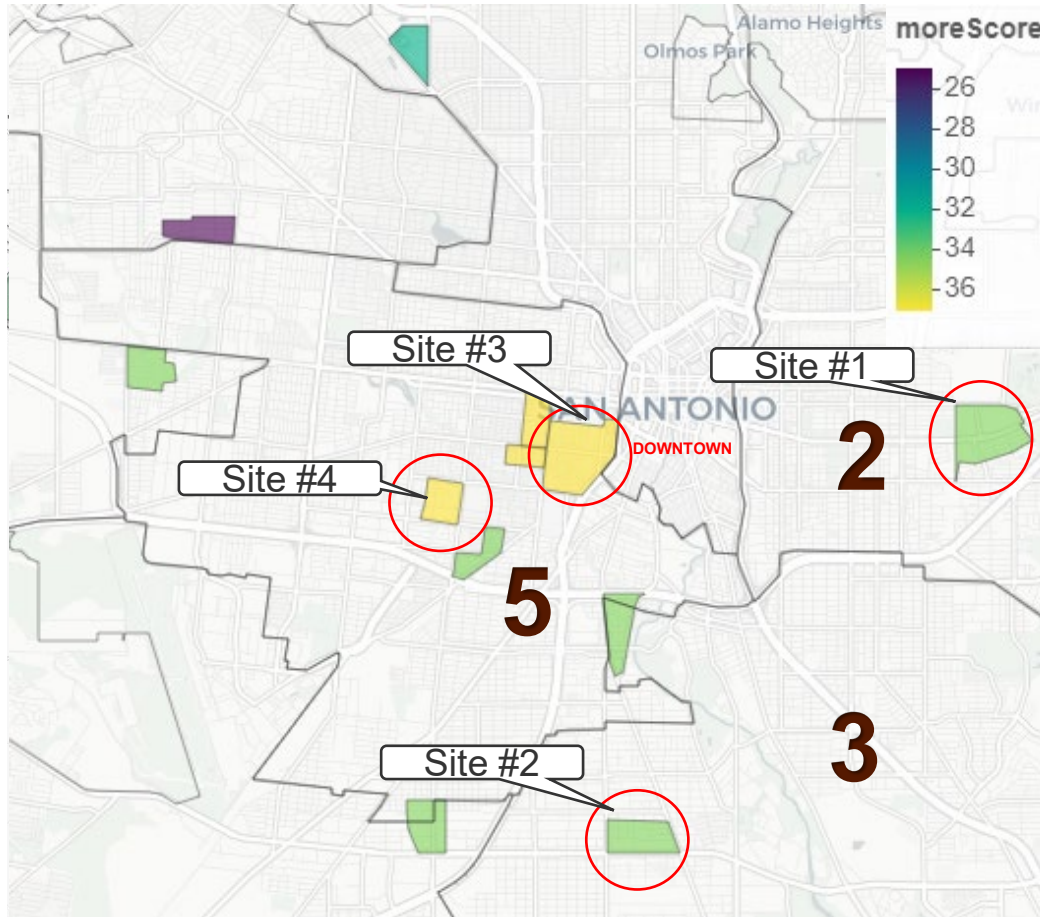
## Next Steps

- **Incorporating Cool Pavement into FY24 PW Paving Program**
- Focus on areas with high heat and equity scores as identified by UTSA
- Continued UTSA Cool Pavement Research





# Urban Heat Island (UHI): Cool Neighborhood Pilot



---

**Focus on four priority census blocks**

---

---

**Interdepartmental & Interagency Coordination**

---

---

**Layer Multiple Infrastructure-Based Mitigation Measures**

---

---

**Community & Stakeholder Engagement**

---

---

**UTSA Research and Sensor Infrastructure Installation**

---

---

**Leverage programs including Casa Verde, Under 1 Roof, EquiTree & Bond Projects**

---

---

**Status: Neighborhood engagement and interdepartmental and external agency coordination has been initiated. Initial mitigation deployments to begin Summer – Fall 2024.**

---

*\*Target census blocks selected based on heat, equity, walkability, impervious surfaces, tree canopy, diabetes, obesity, energy burden, transit, and vehicle access, and climate vulnerability.*



# Trees and UHI Update


---

- Collaboration with UHI Phase II – Pilot
- EquiTree Program Updates



- Increased Street Tree Plantings





# Low-Income Weatherization Program

- **Resiliency, Energy Efficiency, and Sustainability (REES) Fund**
  - Available to assist low-income homeowners to reduce energy consumption and costs by providing energy efficiency improvements and weatherization services for small scale home repairs.
- **REES funds** have been integrated into **NHSD's Major Repair Program** to support qualifying repairs such as:
  - Insulation – Wall & Attic
  - HVAC
  - Windows
  - Siding
- **Results:** As of April 2024, 20 projects have been selected, and planning to accept up to 30 more projects.





# Shade as Art

- Research Status
  - GIS Mapping of where shade and art is needed in relation to high heat areas
- Initiated conversations with partner agencies
- Potential FY 2025 Pilot Program
  - Competition to commission local artists to develop creative ways to provide shade.
  - FY25 REES Funding and other third-party matching grant funds

*Phoenix was awarded \$1M from Bloomberg Philanthropies for ¡Sombra! (Shade): a project that will commission nine artists to create shading and cooling installations in response to extreme urban heat.*

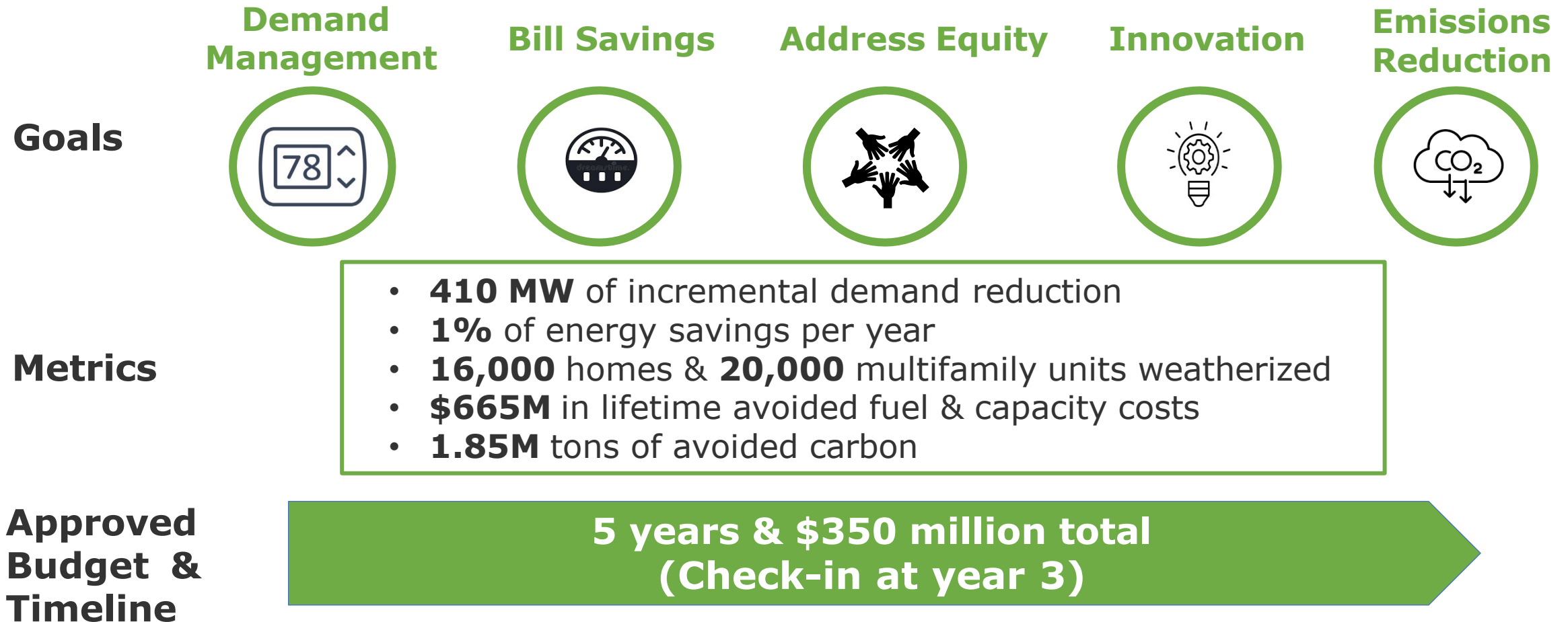


# CPS Energy Update

# SUSTAINABLE TOMORROW ENERGY PLAN (STEP)

## GOALS & METRICS

Successful completion of year 1 of our 5-year program.





# PORTFOLIO OF STEP PROGRAMS

## Equity-focused programs

- Free Home Energy Assessments
- Free HVAC Tune-ups
- Discounted Retail Program
- Expanded Weatherization
- Multi-family Weatherization

## Demand Response (DR)

- Commercial & Industrial DR
- Automated DR
- Smart Thermostat
- WiFi Thermostat Rewards
- Power Players

## Electric Vehicles

- Smart Rewards
- Off-Peak Rewards

## Residential Energy Efficiency

- HVAC Rebates
- Home Efficiency
- New Home Construction
- Cool Roof

## Commercial Energy Efficiency

- Commercial & Industrial Solutions
- Schools & Institutions
- Small Business Solutions
- High Efficiency Tune-Ups
- Direct Lighting Program

## Solar

- Community Solar
- SolarHostSA

## Local Partners






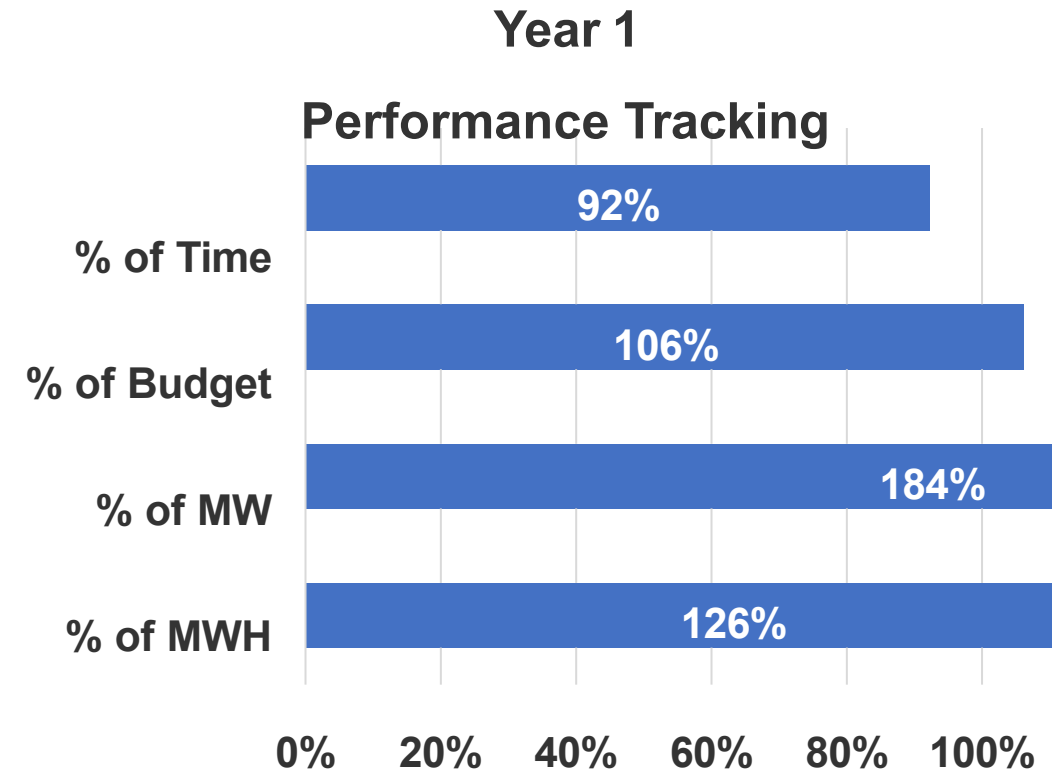
## National Partners



# YEAR 1 PERFORMANCE

## DASHBOARD VIEW – AS OF 6/30/23

Demand Savings		<i>151 MW of incremental demand reduction</i>
Energy Savings		<i>329,621 MWh energy savings</i>
Equity		<i>1,741 single family homes weatherized</i>
Budget	\$\$\$	<i>\$73.4M program spend</i>



**Strong performance in solar and energy efficiency programs helped achieve first year targets.**

# PROGRAMS ON THE HORIZON

## MULTIFAMILY WEATHERIZATION



### Purpose:

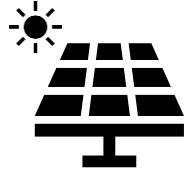
- Expand the benefits of weatherization to multi-family customers who cannot participate in our single-family weatherization program.

### Eligible Properties:

- Multifamily properties with 4 or more units
- Owned and operated by a 501(c)3 or 25% occupied by tenants who receive low-income assistance

**Program structure is being finalized and will launch summer 2024.**

## COMMUNITY SOLAR

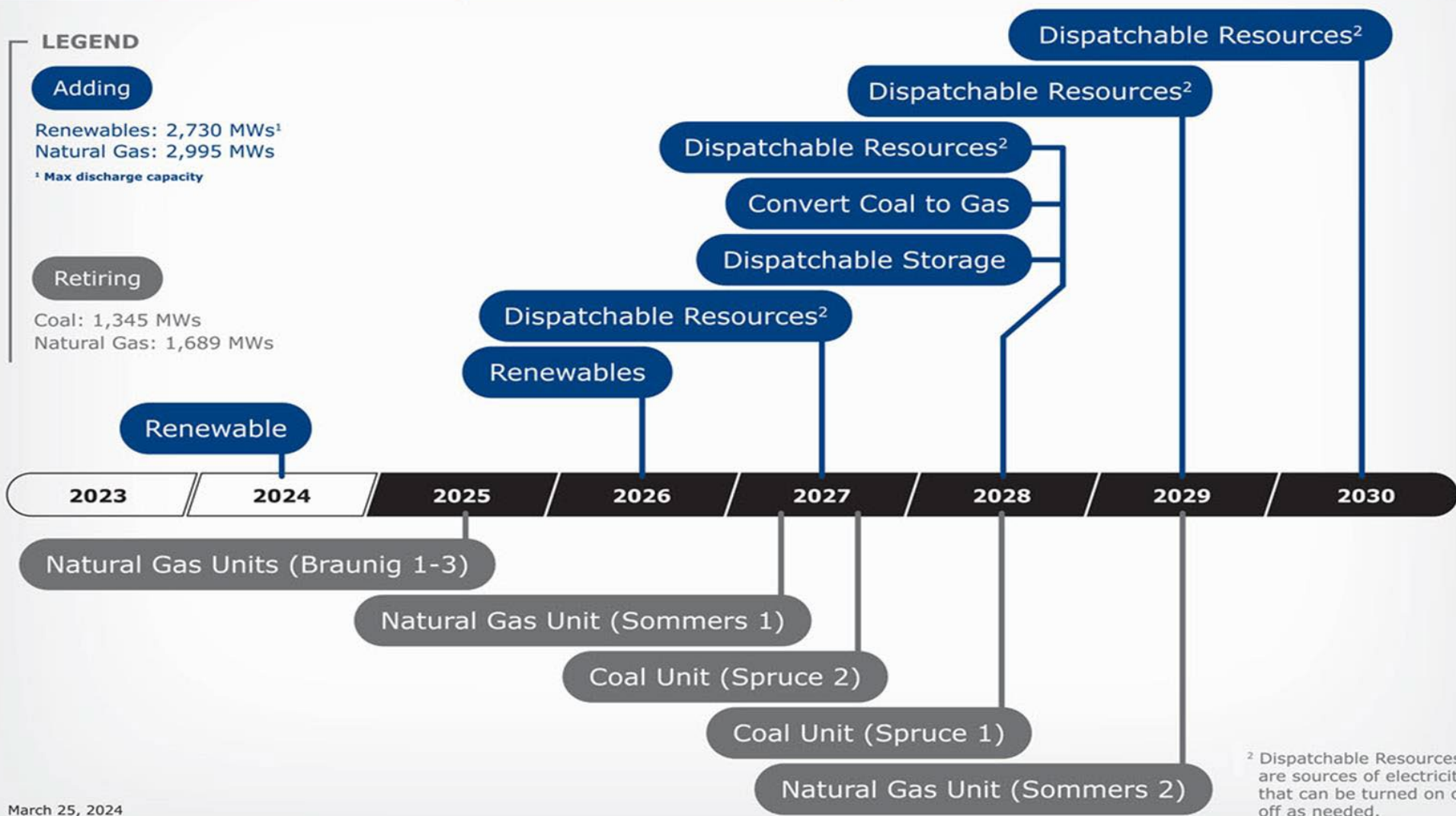


### Expanded goals for community solar:

- Equitable offerings that support Low-to-Moderate Income (LMI) customers
- Increased visibility throughout the community
- Local partnerships to deliver the program
- Heat island mitigation
- Resiliency opportunities
- Create opportunity for local businesses to participate

**RFP seeking up to 50 MW of additional community solar is in the evaluation phase.**





**THANK YOU!**

