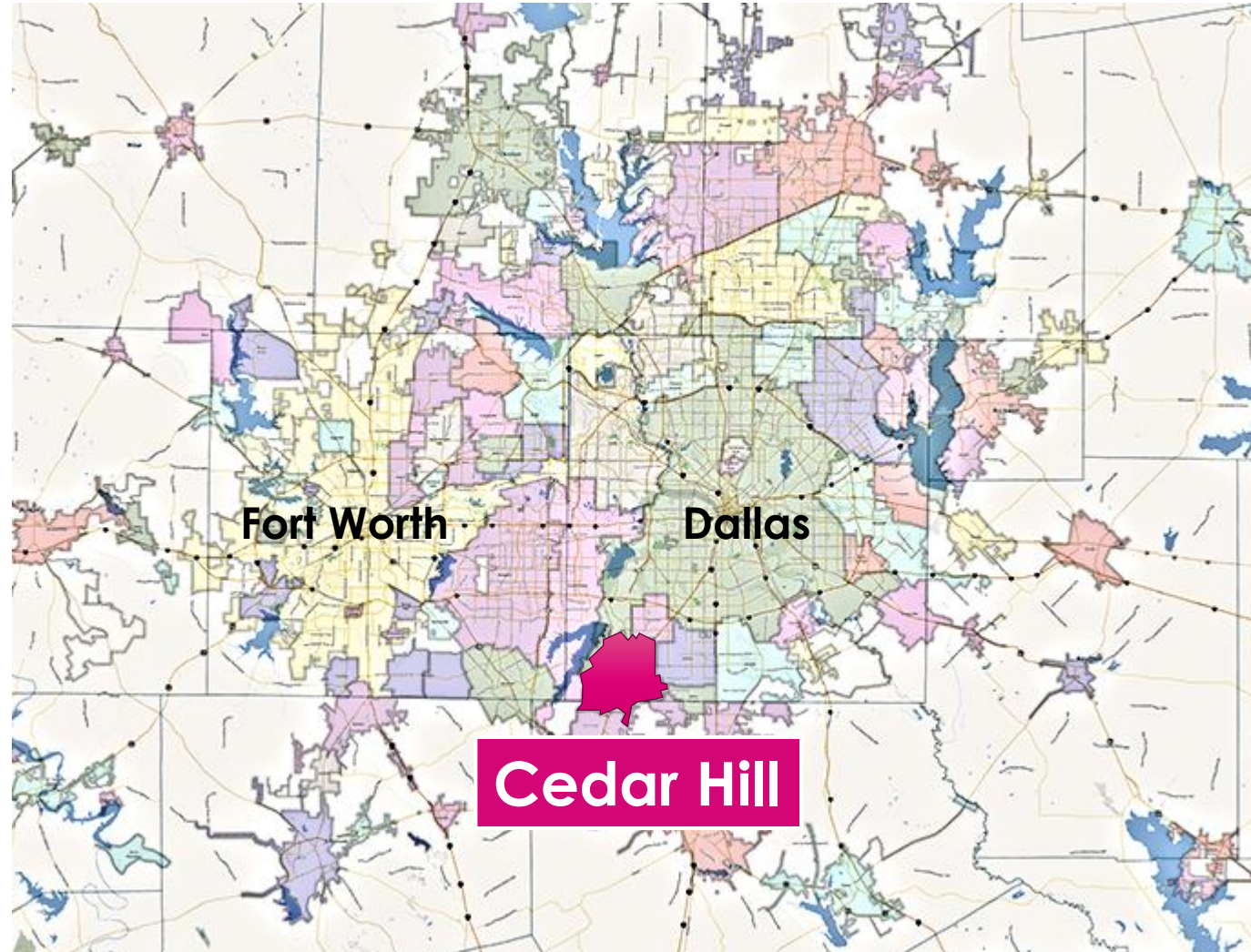


# HOW TO ENGAGE RESIDENTS IN SUSTAINABILITY INITIATIVES

Melissa Valadez-Cummings  
Assistant City Manager

October 20, 2019

# Where Opportunities Grow Naturally



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# Cedar Hill by the Numbers



Population  
46,500



Established  
1846



Elevation  
880 ft



Green Space  
34%



Tree Canopy  
7,938 acres



Number of Parks  
19



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# Our Strengths & Values

*Distinctive Character*

*People & Place*

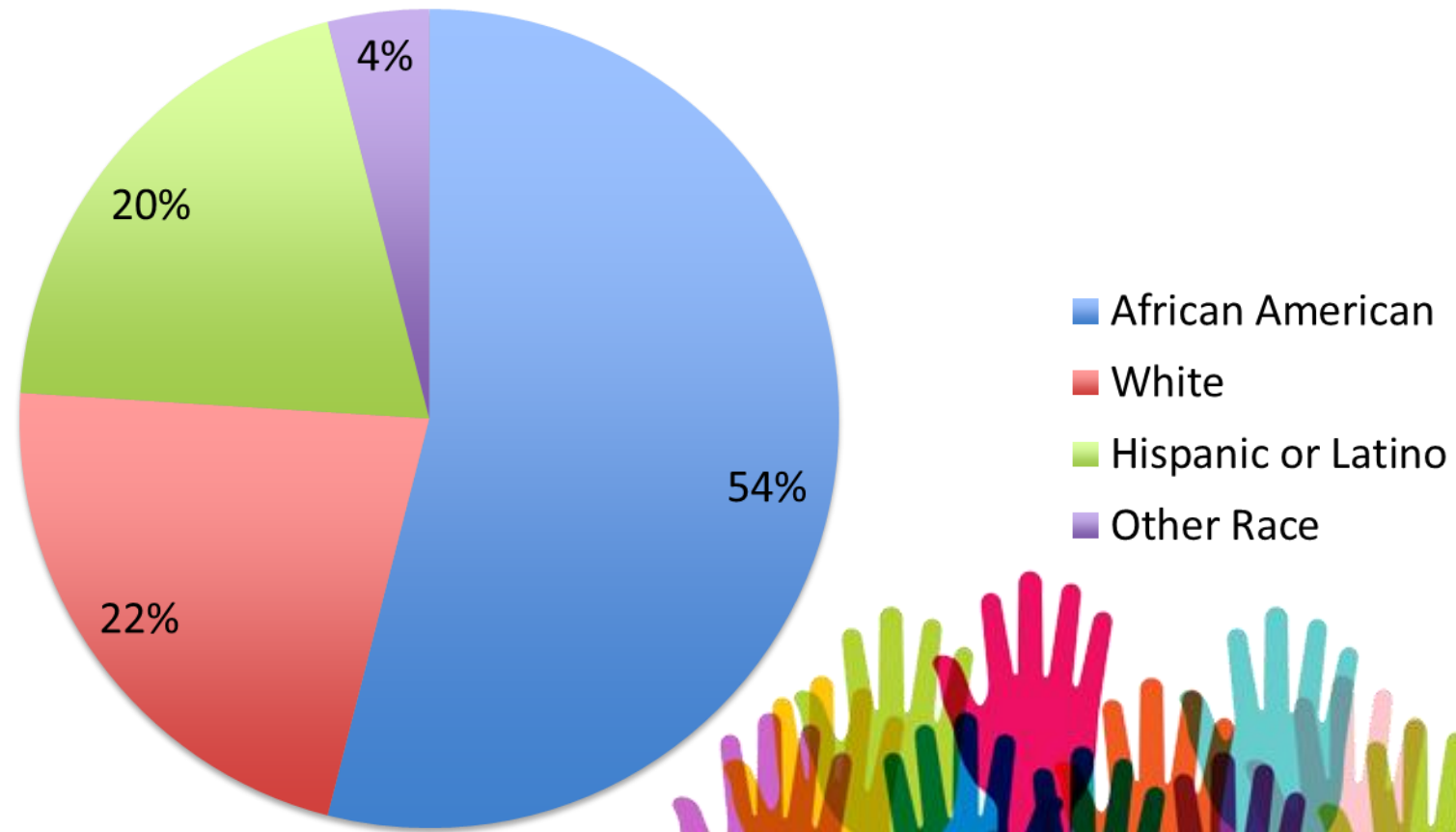
**Nationally ranked schools**

**Economic Development Potential**

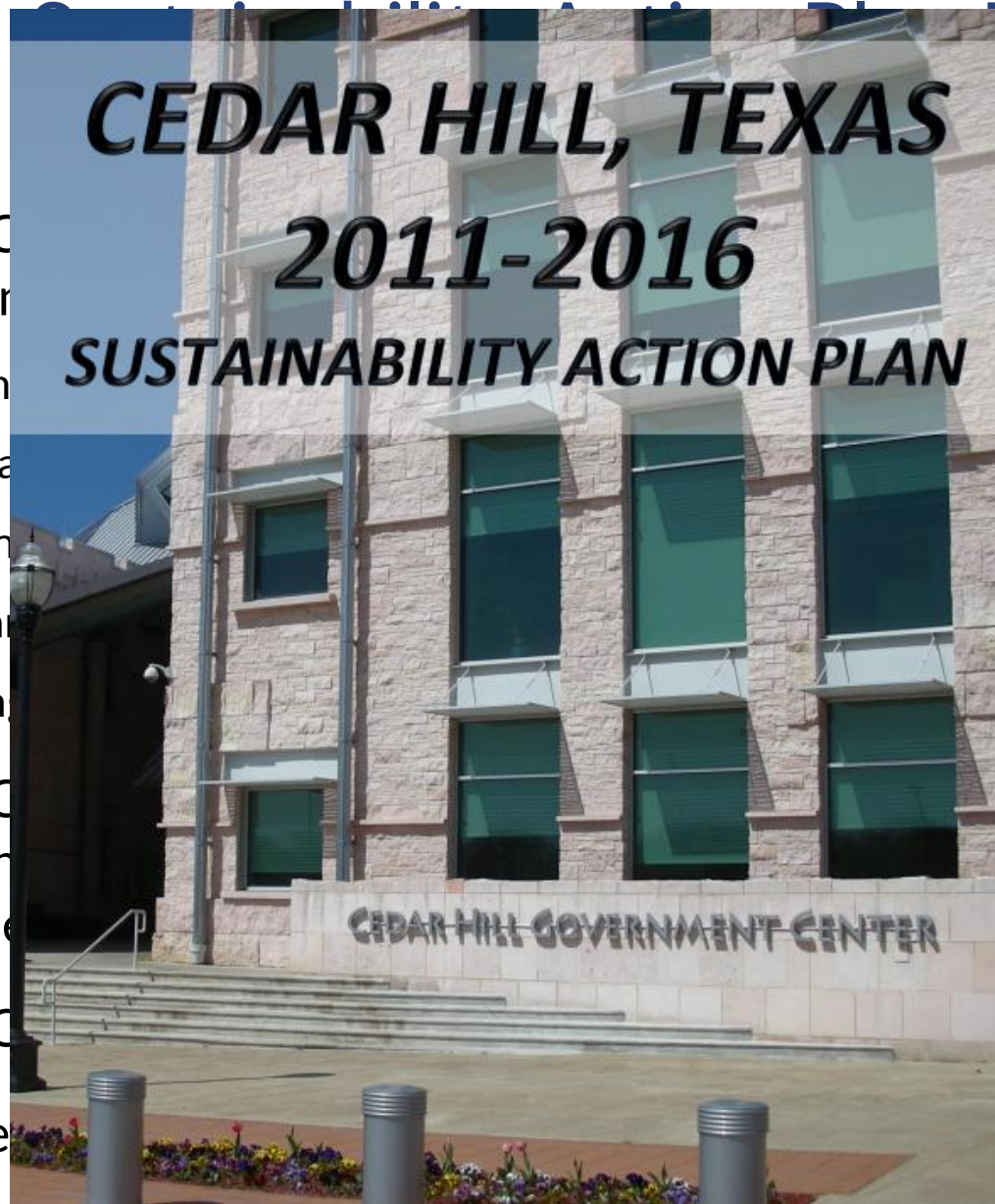
**Sustainability**

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# Cedar Hill is Diverse







- 2009 - City of Cedar Hill Strategic Plan
  - Clean
  - Safe and
  - Distinctive
  - Vibrant
  - Strong
- 2010 - City of Cedar Hill Conservation and Energy Conservation
- 2011 - City of Cedar Hill
- Staff provide

History

quality in their

efficiency  
to develop  
erted to SAP  
Action Plan

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# 2011-2016 SUSTAINABILITY ACTION PLAN (SAP)

---

## Vision

*We envision Cedar Hill as a regionally engaged sustainable community that manages resources wisely, conserves natural beauty, and promotes open space.*

## Mission

*The City of Cedar Hill's Mission is to invest in practical planning today for a sustainable community tomorrow.*

# Sustainable Development Model

- Triple Bottom Line ~ ROI based on three areas:
  - Social
  - Economic
  - Environmental
- Comparable to Three P's of Private Sector
  - People
  - Planet
  - Profit





# Building a Green Sustainable Future

Dependent on making Good use of our Resources through **GROWING GREEN:**

- Urban conservation
- Renewable energy
- Green infrastructure
- Water conservation & management
- Transportation

Business case for City's future economy

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# CITIZEN DRIVEN URBAN CONSERVATION

# A City in a Park

- Development incorporates natural landscape
- Tree Preservation Ordinance & Historic Tree Preservation
- Parks Open Space, Trails & Open Space Vision Master Plan (2012)
  - Protect 20% of City dedicated to Parks and Open Space



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# A Walkable City

- Cedar Hill is in the **TOP**



**CHECK OUT  
A BIKE  
WITH YOUR  
LIBRARY  
CARD.**



**BIKE SHARING @ ZULA B. WYLIE PUBLIC LIBRARY**  
**BIKE. READ. LIVE.**

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# Cedar Hill's Philosophy



MA2019



# CITIZEN DRIVEN RENEWABLE ENERGY



# Solar PV System

## Solar: part of City's green initiative

You can't see them from the ground, but the solar panels installed on the roof of the Government Center will soon start cutting the City's electric bill by \$21,000 a year.

The system is roof-mounted and grid-tied. The solar panels are strategically located at the most prominent facility in Cedar Hill for maximum energy production and awareness to those living in and visiting the City.

Asst. City Manager Melissa Stephens began submitting grant applications in August, 2000 to fund most of this project. It will cost over \$900,000 to install the system and bring it online.

Federal, state and an Oncor grant covered all but \$25,000.

The City expects to save about \$21,000 a year in electricity costs at the government Center. It will take just over a year to recover



Installers finished connecting solar panels on the Government Center roof

the City's portion of the cost.

The panels will provide about 8% of the electricity for the Government Center. And they will enhance local awareness of alternative energy uses.

An interactive video

panel in the lobby will show visitors exactly how much energy the solar panels are producing at any point in the day.

Cedar Hill is adopting an aggressive "green" strategy, encouraging residents

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BY RITA COOK  
Focus Daily News  
Rcook13@earthlink.net

CEDAR HILL—The City of Cedar Hill got a little greener this month when the much anticipated solar panels finally arrived and are being installed this week and next on the City's Government Center.

"[We are] crossing our fingers that weather cooperates in the coming weeks, we will have the panels up and producing power by the end of June," says Melissa A. Stephens, Assistant City Manager, City of Cedar Hill. "There is plenty of sun already and the summer hasn't even officially begun."

The system is roof mounted and grid

tied.

The solar panels are strategically located at the most prominent facility in Cedar Hill for maximum energy production and visibility by those living in and visiting the City.

"With demand for energy continuing to rise, using renewable sources like the sun to produce clean, safe, reliable energy has taken on new urgency at the City of Cedar Hill," says Stephens. "This solar photovoltaic system totaling 152.64 kW is expected to produce over 200,000 Killowatt hours (KWH) and save over \$21,000 a year on electricity costs. By implementing this system, CO2 emissions will be reduced by 279,098 pounds annually, which can be equated to planting 35

acres of trees annually, or removing 24 average size cars from the road annually."

Stephens says too that the kilowatts per hour that will be generated by the solar panels is approximately eight percent of the Government Center's average consumption on a daily basis.

In the works since the summer of 2010, the city received the grant for the project from SECO back in January.

According to Stephens, The Texas State Energy Conservation Office (SECO) is specifically designated to award solar panel projects to local governments in the area just like this

The project actually began when the

SEE SOLAR...PAGE 7

## City begins solar panel installation





# Wind Turbine



## Government Center Renewable Energy Systems

Solar System Size: 152,768 kW DC  
Police Department Generating Since: July 5, 2011  
City Hall Generating Since: June 28, 2011  
Wind System Size: 4 kW AC  
Wind Generating Since: July 25, 2012  
Last Updated: 12:15pm Sep 30, 2016



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# CITIZEN DRIVEN GREEN INFRASTRUCTURE



# Recycling Focused Solid Waste

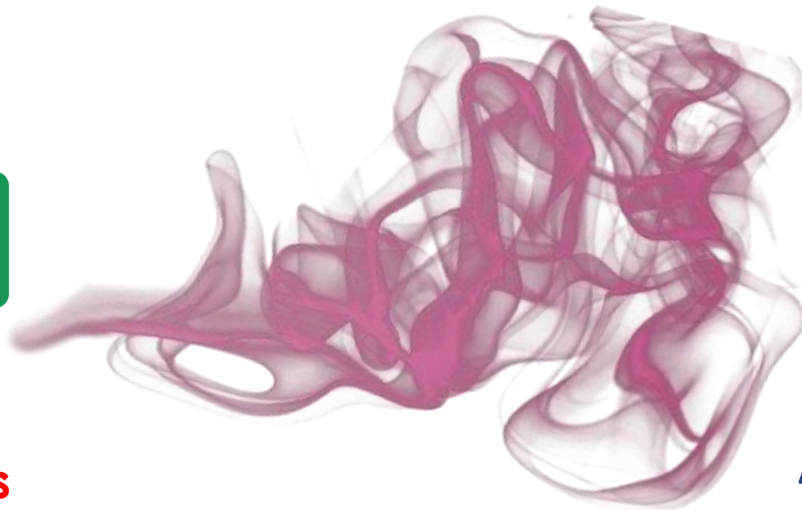
- Once a week collection of trash and recycling
- Single stream recycling in 96 gallon carts for single family residences
  - Results in 200% increase in recycling participation in first 3 months
- Mandatory multi-family recycling (2013)
  - \$1 per unit regardless of occupancy
  - Recycling service provided to 9 complexes or 1,654 units in Cedar Hill
- 1 bulky item per week
- 100% of all green waste is recycled



# Environmental Impact

## Reduced Carbon Footprint

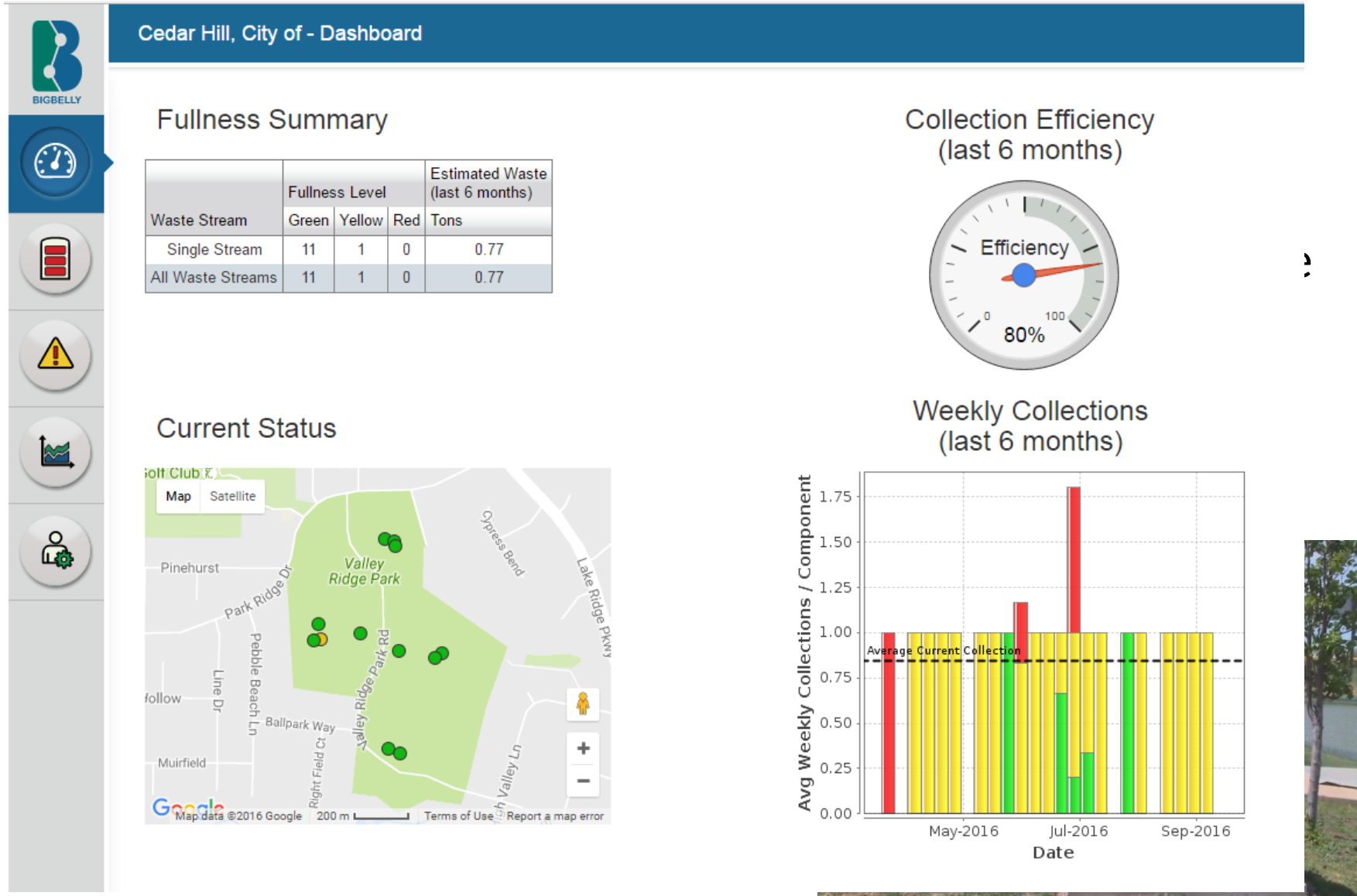
- Surface miles traveled reduced by ~1,000 miles per week
- Since 2013
  - Reduced by 182,000 miles traveled
  - 308 metric tons of CO2 reduction



After 2013 1,800 miles

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# Big Belly Solar Recycling Compactors





# Household Hazardous Waste

- Partnership with the Fort Worth Environmental Collection Center
  - FREE to all Cedar Hill Residents
  - 2 mobile events annually
- Program expansion in 2017
  - \$66,000 Regional Planning agency grant
  - \$18,500 City Budgeted
  - Expand to 4 mobile events
  - Purchase of trailer and equipment so mobile event is fully ran by City staff



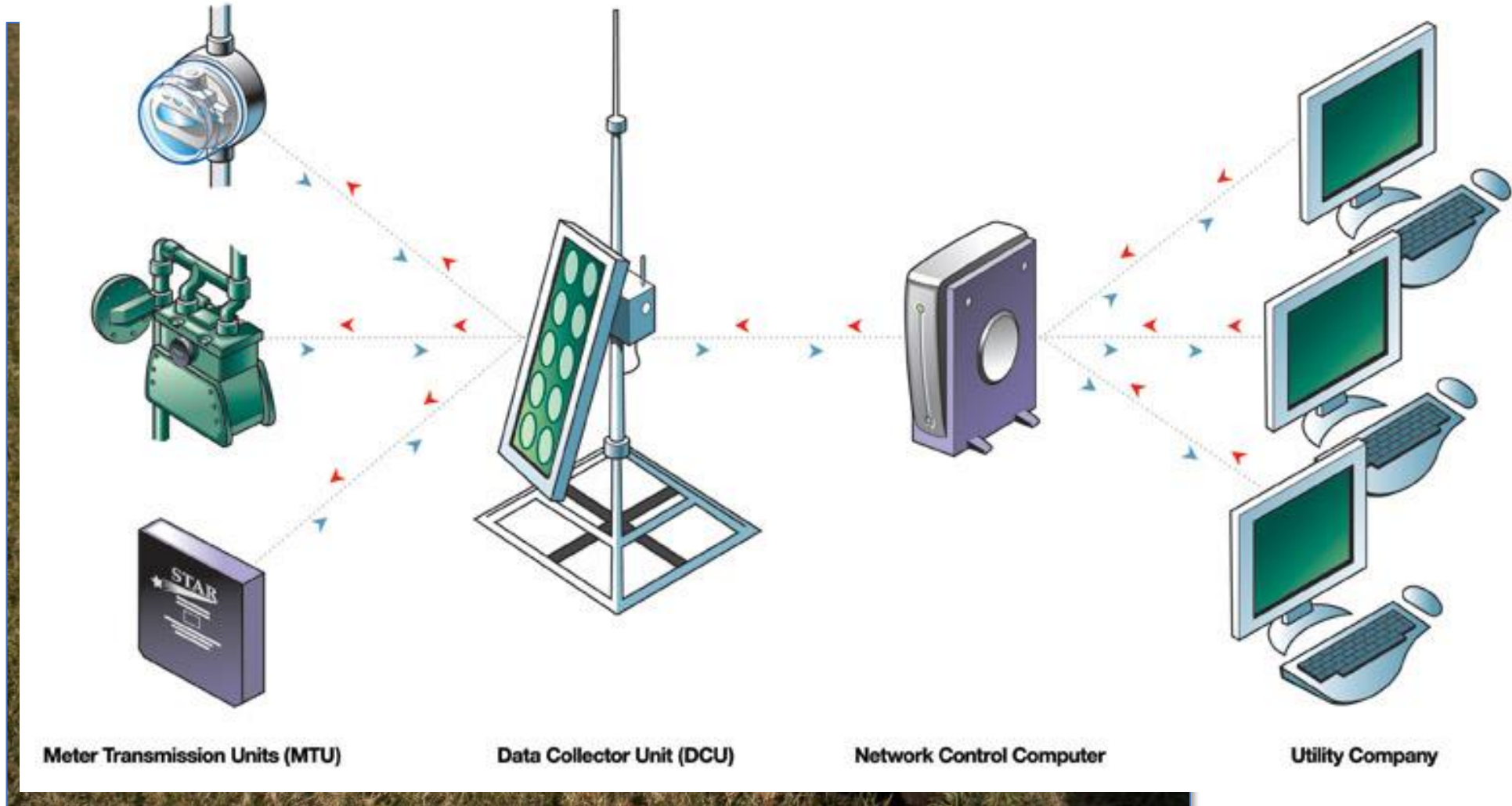
Over 35,000 lbs of HHW removed from landfill waste stream annually

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# CITIZEN DRIVEN WATER CONSERVATION & MANAGEMENT

# Automatic Metering



<http://www.hickorync.gov/egov/gallery/1191222782811888.jpg>

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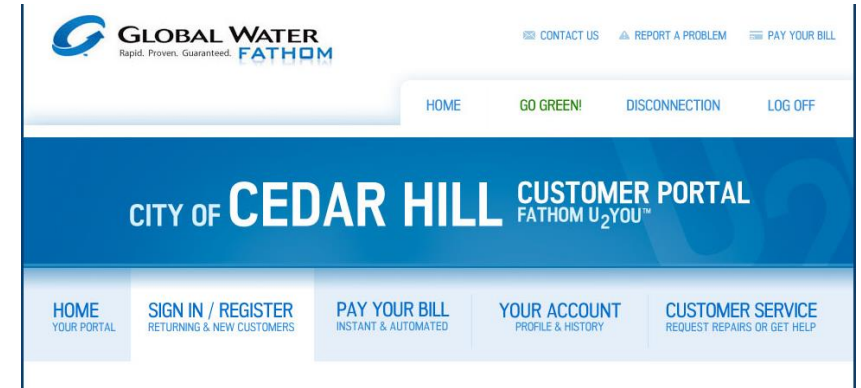
# Automatic Metering Infrastructure



- \$300,000 Bureau of Reclamation grant for pilot project
- 24 Solar Powered Data Collectors throughout the City
- Eliminated meter reading routes
  - 210 miles monthly
  - Reduced emissions; saved fuel costs
- Total \$9.1m Project ROI – less than 7.5 years

# Customer Empowerment

- More accurate reading of water consumption
- Facilitates water conservation
- Enhanced customer service
  - Real time meter reads
  - Leak detection in 24 hours
  - Empower citizens to manage water usage
    - App
    - Set alerts for water use thresholds
    - Compare water usage to neighbors in similar households







# CITIZEN DRIVEN TRANSPORTATION

# Transportation

- Solid Waste Changes
  - Significant carbon emission reduction
- Automatic Metering Infrastructure
  - Carbon emission free water meter reading
- Carbon Emission Free transportation
  - Electric Vehicles & EV charging stations
- Transit Oriented Development Plan

# Electric Vehicles



- City purchased two all electric vehicles
- Powered by Solar/Wind
- EV charging stations 100% grant funded





## ← Cedar Hill Government Center Pu...

name

Cedar Hill Government Center Public Parking

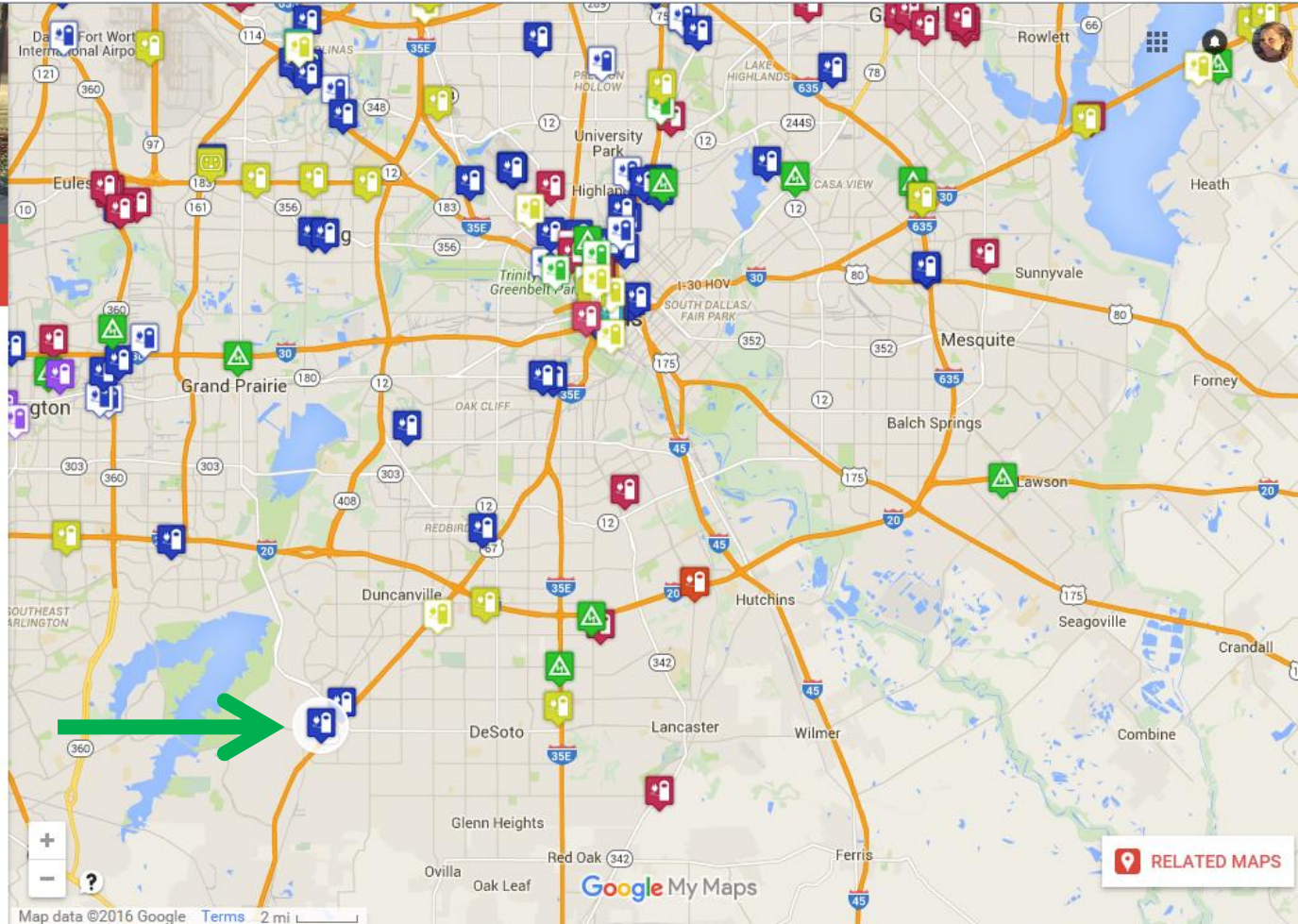
description

Blink - Two Level 2 (J1772)

285 Uptown Boulevard

Cedar Hill, TX 75104

Cost: \$0.02-\$0.03/30 seconds



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# Community EV Stations

- Hillside Village EV Stations



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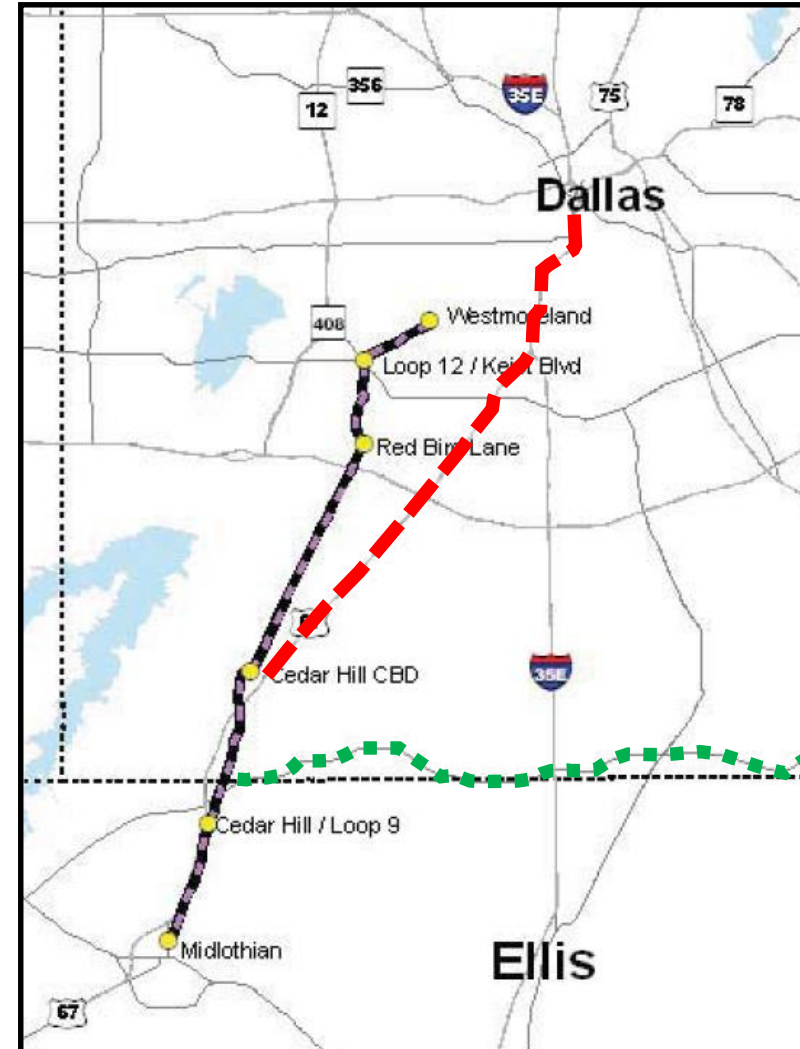
# Economic Vitality for Cedar Hill

## ➤ Transportation

- Transit
- East / West network (Loop 9, Southern Gateway and connections)

## ➤ Growing a Complete Economy

- Corporate presence
- Strong education and health care presence
- Use of Natural Resources (water, open space, energy)



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# Future Sustainability for Cedar Hill

- Becoming a way of life
- Transition from a Task Oriented Plan to a Strategic Planning Oriented Plan
- Involves ALL departments AND the community





*The greatest thing in this world is not so much where  
we stand as in what direction we are moving.*

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Thank You

**Melissa Valadez-Cummings**

Assistant City Manager

[melissa.valadez@cedarhilltx.com](mailto:melissa.valadez@cedarhilltx.com)

972-291-5100 x1007

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THANK YOU

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Questions?

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