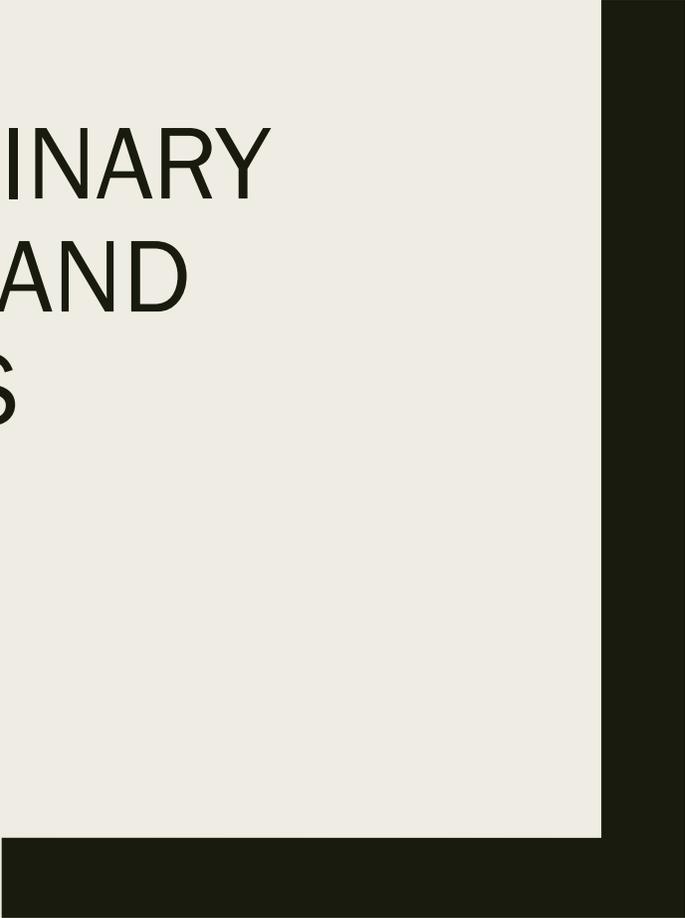


CITY OF DENTON PRELIMINARY ENERGY ASSESSMENT AND TRACKING RESULTS

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City of Denton Sustainability



Introduction

- Background Denton and PEA's
- Background on Buildings Selected
- PEA Recommendations and Actual Changes
- Results of Changes
- Importance of Data Tracking
- The Bigger Picture

DENTON BACKGROUND

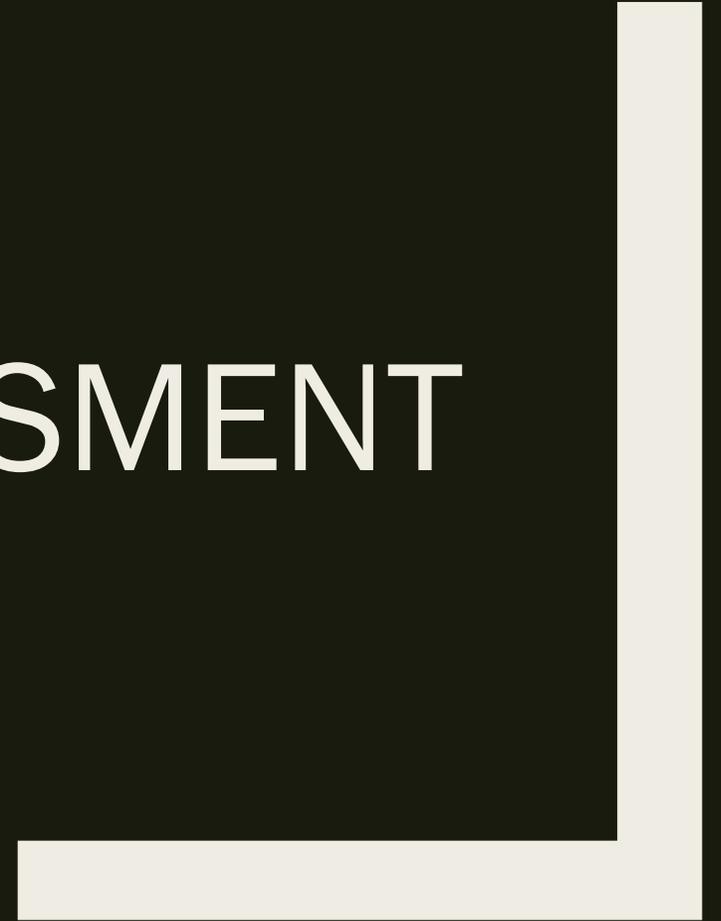


Background

- 58 Municipally owned and monitored buildings
- Municipal Green Building Policy adopted March 2014
- Residential and commercial energy efficiency efforts as well as municipal
- PEA Conducted 7/26/2018 on 10 facilities of different types



BUILDING ASSESSMENT



South Branch Library

Square Footage: 20,700

Initial EUI / Ranking: 70.62 / 3

Initial ECI / Ranking: 2.98 / 9



Fire Station #1

Square Footage: 26,238

Initial EUI / Ranking: 131.57 / 9

Initial ECI / Ranking: 2.56 / 7



Spencer Complex (DME Admin)

Square Footage: 8,500

Initial EUI / Ranking: 59.87 / 1

Initial ECI / Ranking: 1.82 / 3



North Branch Library

Square Footage: 33,000

Initial EUI / Ranking: 72.27 / 4

Initial ECI / Ranking: 1.84 / 4



DME Field Operations

Square Footage: 10,900

Initial EUI / Ranking: 60.80 / 2

Initial ECI / Ranking: 2.85 / 8



Animal Shelter

Square Footage: 18,156

Initial EUI / Ranking: 130.40 / 8

Initial ECI / Ranking: 2.27 / 6



Denia Recreation Center

Square Footage: 17,580

Initial EUI / Ranking: 76.48 / 6

Initial ECI / Ranking: 1.76 / 2



Emily Fowler Library

Square Footage: 22,876

Initial EUI / Ranking: 86.33 / 7

Initial ECI / Ranking: 2.00 / 5



City Hall East

Square Footage: 153,000

Initial EUI / Ranking: 72.56 / 5

Initial ECI / Ranking: 1.60 / 1



Spencer Complex

Square Footage: 9,838

Initial EUI / Ranking: 208.16 / 10

Initial ECI / Ranking: 5.55 / 10



RECOMMENDATIONS AND CHANGES



Recommendations

- Interior lighting retrofit
 - *All Buildings*
- Interior lighting controls
 - *City Hall*
 - *Denia*
 - *Fire Station #1*
 - *North Lib*
 - *South Lib*
- HVAC Night Setback
 - *Animal Shelter*
 - *Denia*
 - *Spencer Complex*
 - *DME Admin*
 - *Field Ops.*

Changes

- Roof Insulation
 - *Fire station #1*
 - *South Branch Library*
- LED Retrofits
 - *Fire Station #1*
- HVAC replacement
 - *DME Field Ops*

RESULTS



Before and After PEA

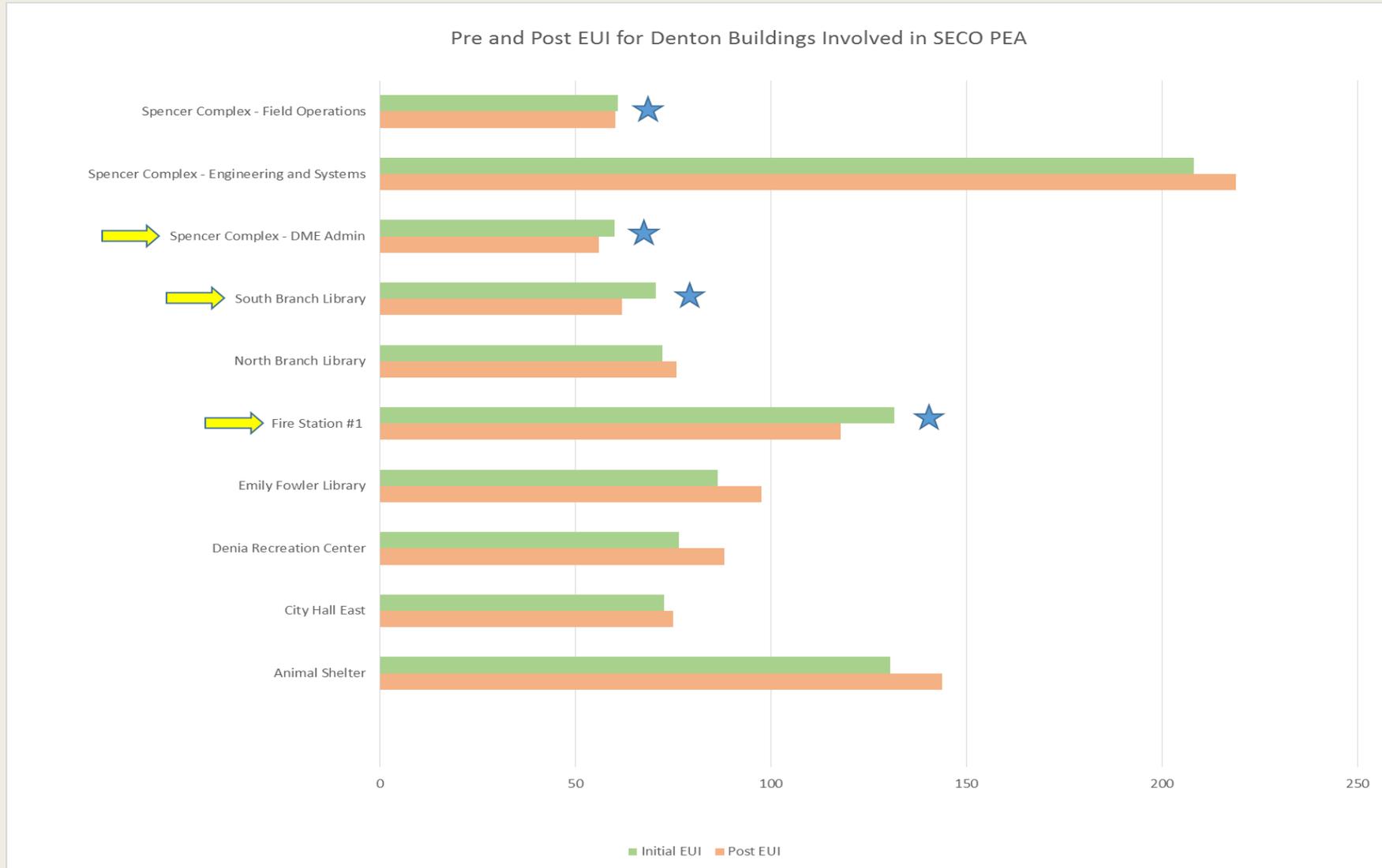
Buildings with upgrades

- Electricity Use  7.29%
- Natural Gas Use  13.64%
- EUI  7.98%
- ECI  17.77%

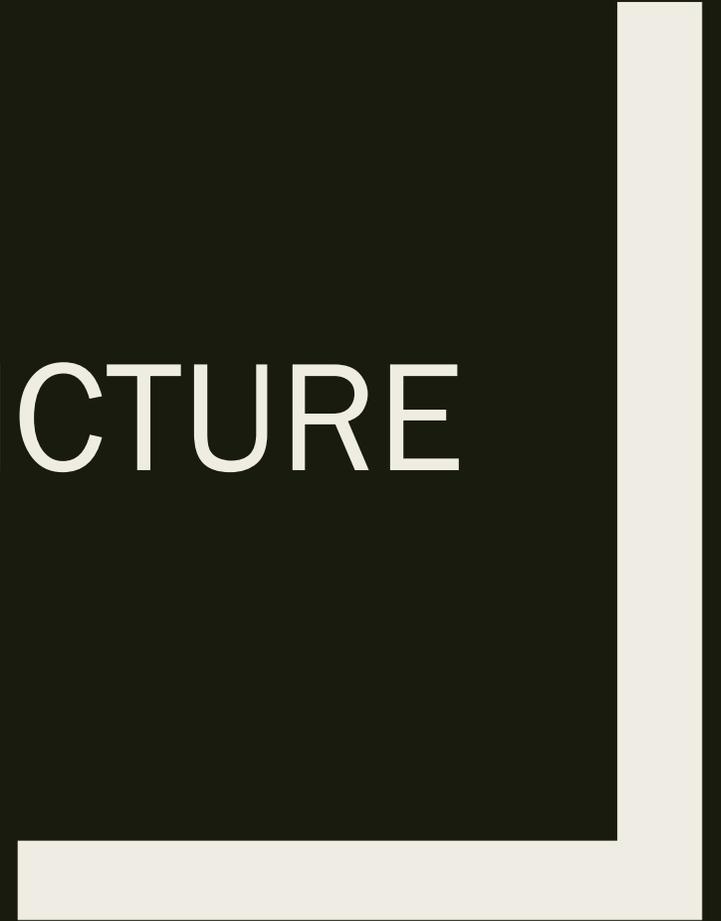
Buildings with no change

- Electricity Use  0.98%
- Natural Gas Use  22.14%
- EUI  6.44%
- ECI  2.96%

Other Visuals



THE BIGGER PICTURE



Why?

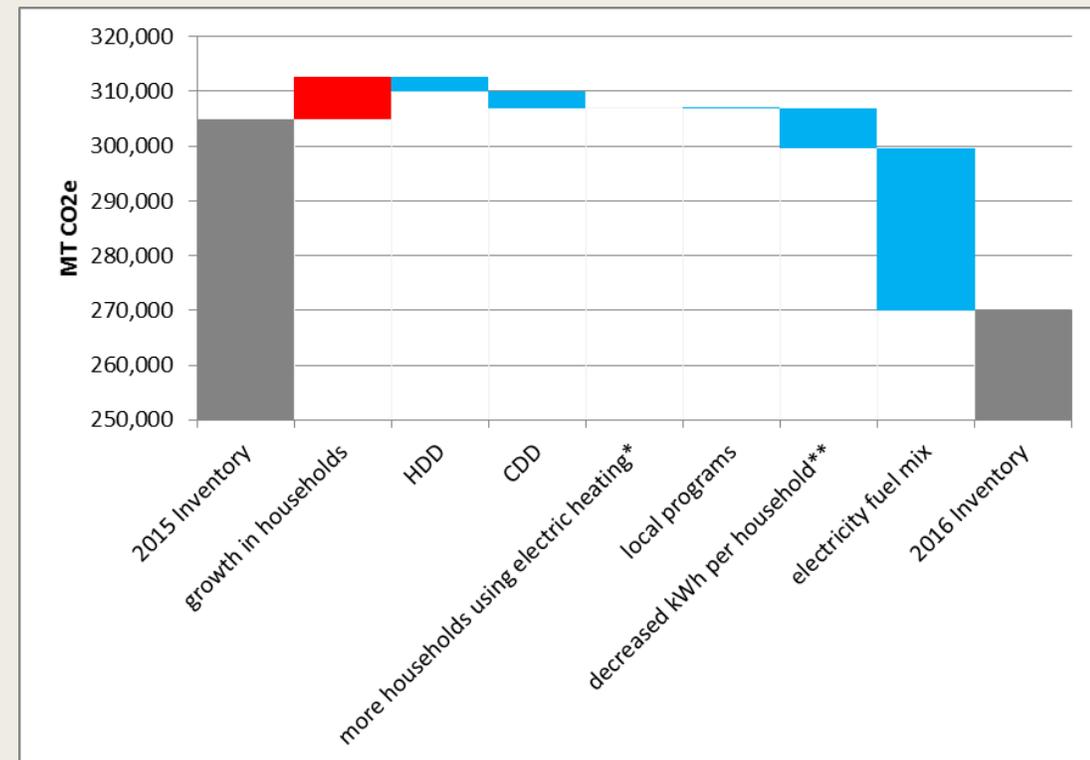
- Denton 2030
- Denton Strategic Plan 18-19
- Lower Peak Loading
- Environmental Benefit
 - *Approx. 40 MTCO₂e*
- Economic Benefit
 - *Approx. \$33,000*

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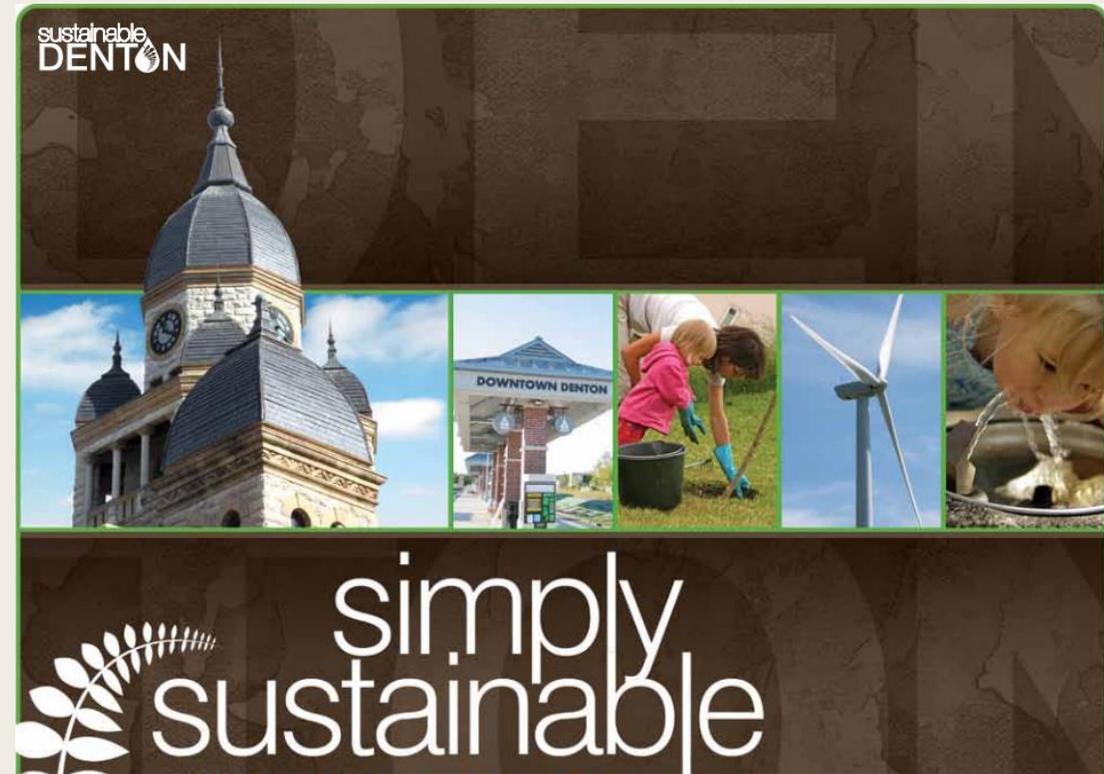
Data Tracking and Future Goals

- Your data is only as good as the questions you ask
- Many factors influencing a single number
- Benefits of breaking it down



What Else is Denton Doing

- Sustainability Plan Update
- GHG Inventory and Contribution Analysis
- Green Business Program
- Energy and Water Conservation
Education and Outreach



QUESTIONS?

