



Reporting GHG Emissions





Travis County Large GHG Sources

2012 GHG Emissions as reported to EPA
(<http://www.epa.gov/ghgreporting/>)

FACILITY NAME	GHG (METRIC TONS CO2e)
AUSTIN WHITE LIME MCNEIL PLANT	301,907
Decker Creek	655,178
FM 812 Landfill	25,790
Freescale Semiconductor - EB site	58,107
Freescale Semiconductor - OH site	59,528
HAL C WEAVER POWER PLANT	196,839
Samsung Austin Semiconductor	322,024
Sand Hill Energy Center	688,328
Spansion LLC	93,050
SUNSET FARMS LANDFILL	119,776
Texas Gas Service	80,426
WASTE MANAGEMENT RECYCLING & DISPOSAL FACILITY	57,689
Total large emitters	2,658,642

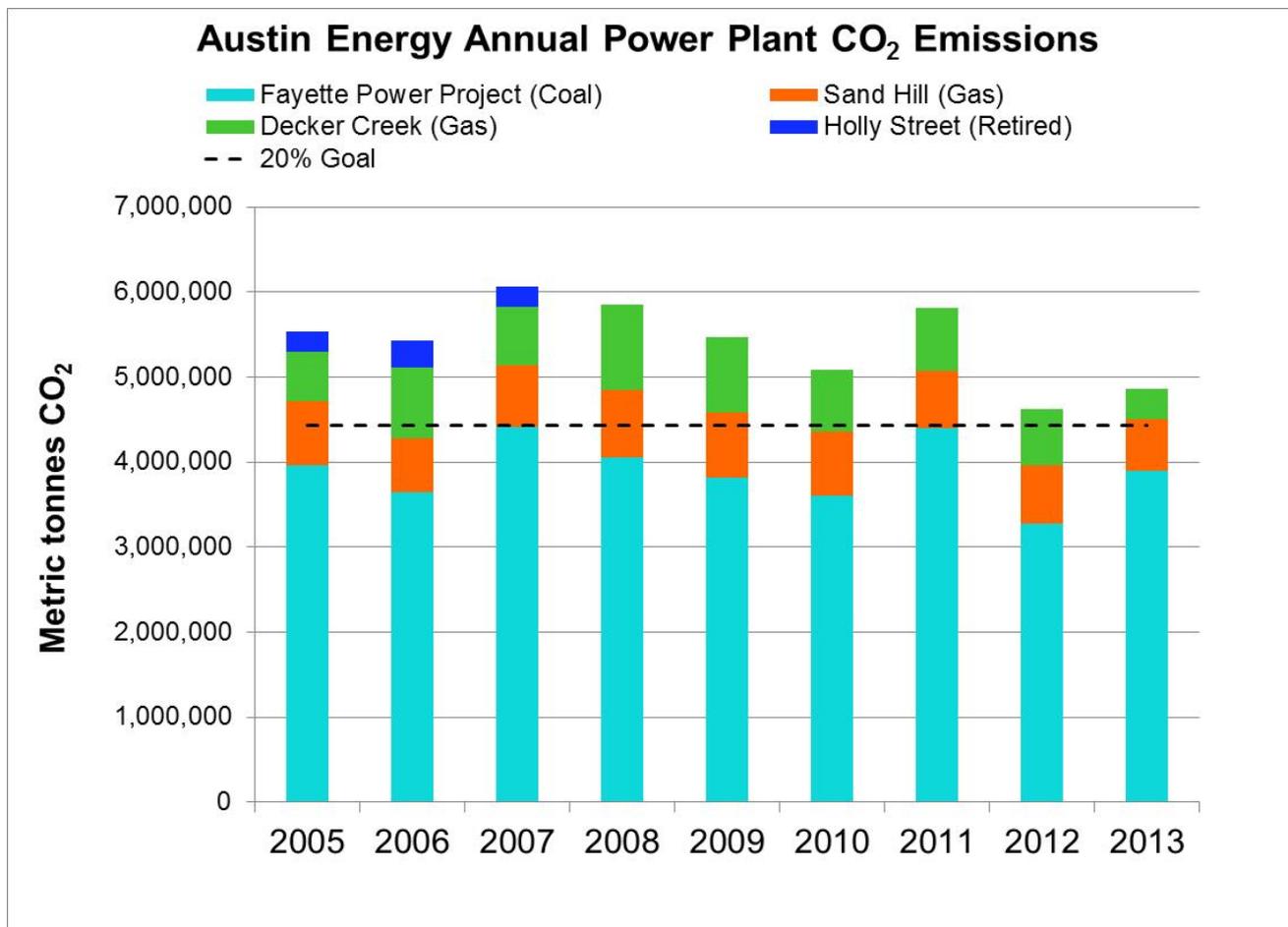


Austin Energy GHG Reporting: Emissions (tons or tonnes)

- Hourly stack CO₂ emissions (tons)
 - Submitted quarterly to EPA – data is public
- Annual stack CO₂ emissions (metric tonnes)
 - Same data as above
 - Basis for existing 20% below 2005 goal
- Annual total CO₂ emissions from power plants and transmission/distribution (tons)
 - Reported to EPA per 2010 reporting rule
 - Includes non-CO₂ gases – data is public



AE Emissions Trends



No new net MW of fossil resources added since 1990 – market dispatch determines emissions
Annual CO₂-e looks virtually identical since non-CO₂ gases are less than 1% of total



Austin Energy GHG Reporting: Emissions Intensity (lbs per MWh)

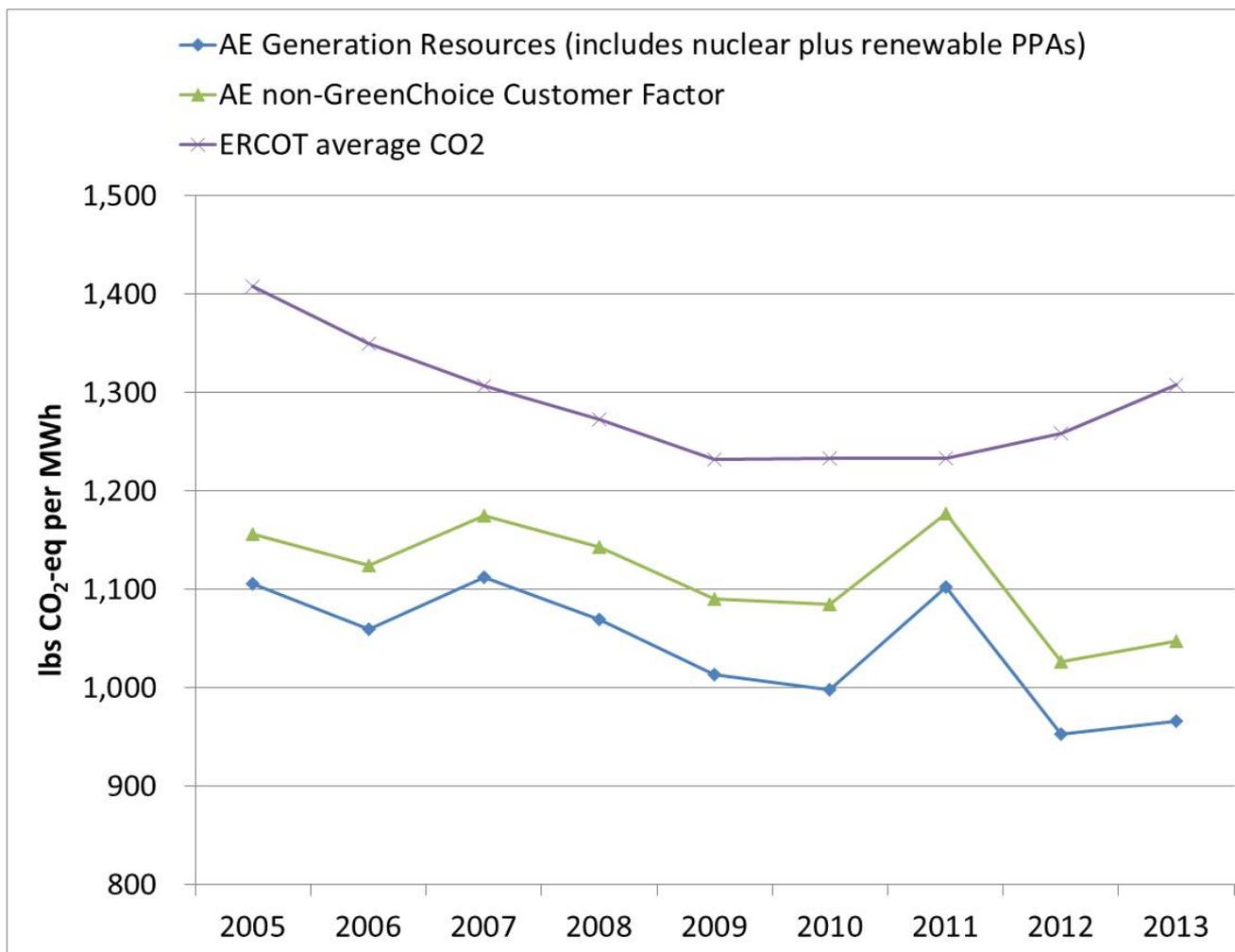
- AE non-GreenChoice Customer Factor
 - GreenChoice customers can claim 0 lbs/MWh
 - Gives non-GC customers a way to calculate carbon footprint from AE electricity
 - Basis for Office of Sustainability's Community and Registry Emissions Inventories

$$\frac{\text{lbs } CO_2e}{\text{MWh}} = \frac{\text{AE Stack Emissions} + \text{SF}_6 \text{ Emissions}}{\text{AE Generation}' - \text{GreenChoice Sales}}$$

' Includes generation from all AE owned and contracted resources



AE Emission Rate Trends



AE Emission Rates will continue to decrease as more renewables are added



Other Calculations

- Lifetime or annual CO₂ avoided by DSM programs
 - Used to quantify benefit of DSM investments
 - Based on emission rate of units on the margin at time of day when programs are saving energy
- Annual average CO₂ avoided by all GreenChoice Sales
 - Reported in Annual Performance Report
 - Total sales multiplied by ERCOT average CO₂ emissions factor, provided by ERCOT
- Proposed EPA Power Plan Rule CO₂/MWh Target
 - State level target: ratio of stack CO₂ emissions divided by fossil generation + all renewable generation + 5.8% of nuclear generation + annual DSM savings



Considerations

- Dispatchable generation
 - Has been a good hedge to Austin Energy portfolio.
 - Help maintain rate stability & protect from price volatility
 - Enables investments in zero-carbon resources
- Stack (mass) emission metrics do not reflect emissions that are offset (in ERCOT) due to AE DSM and renewable investments
- All load served from ERCOT market - load would have carbon footprint in absence of AE generation
- CO₂ basis is easier to track/report than CO₂-e since non-CO₂ gases are less than 1% of AE emissions