



Austin Energy's Generation Planning in a Carbon-constrained Environment



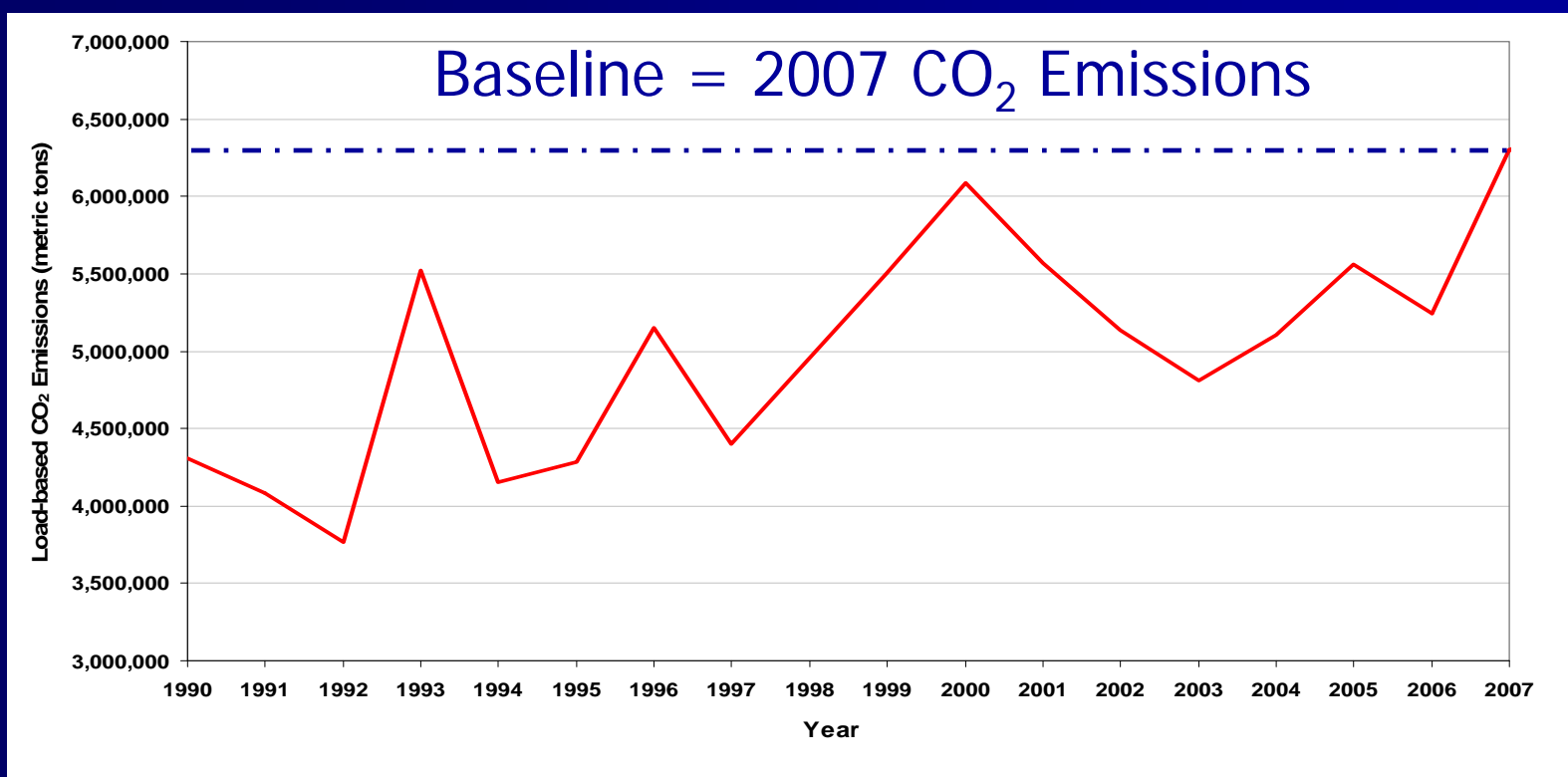
3rd Annual CCAR Members Meeting

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Outline

- Establish baseline
- Set goals (Austin Climate Protection Plan)
- Evaluate reduction measures
- Implement cost-effective measures

Establish a Baseline = 2007





Set Goals = Austin Climate Protection Plan

- Adopted February 2007
- Aimed at making Austin a leader in the fight against climate change
- Sets utility, municipal, and community-wide greenhouse gas reduction goals





Austin Climate Protection Plan: Non-utility Goals

■ Municipal Plan

- Make all City of Austin operations carbon-neutral by 2020

■ Community Plan

- Engage Austin community to reduce greenhouse gas emissions

■ "Go Neutral" Plan

- Provide tools to measure and reduce individuals' carbon footprints





Austin Climate Protection Plan: Utility Goals

■ Utility Plan

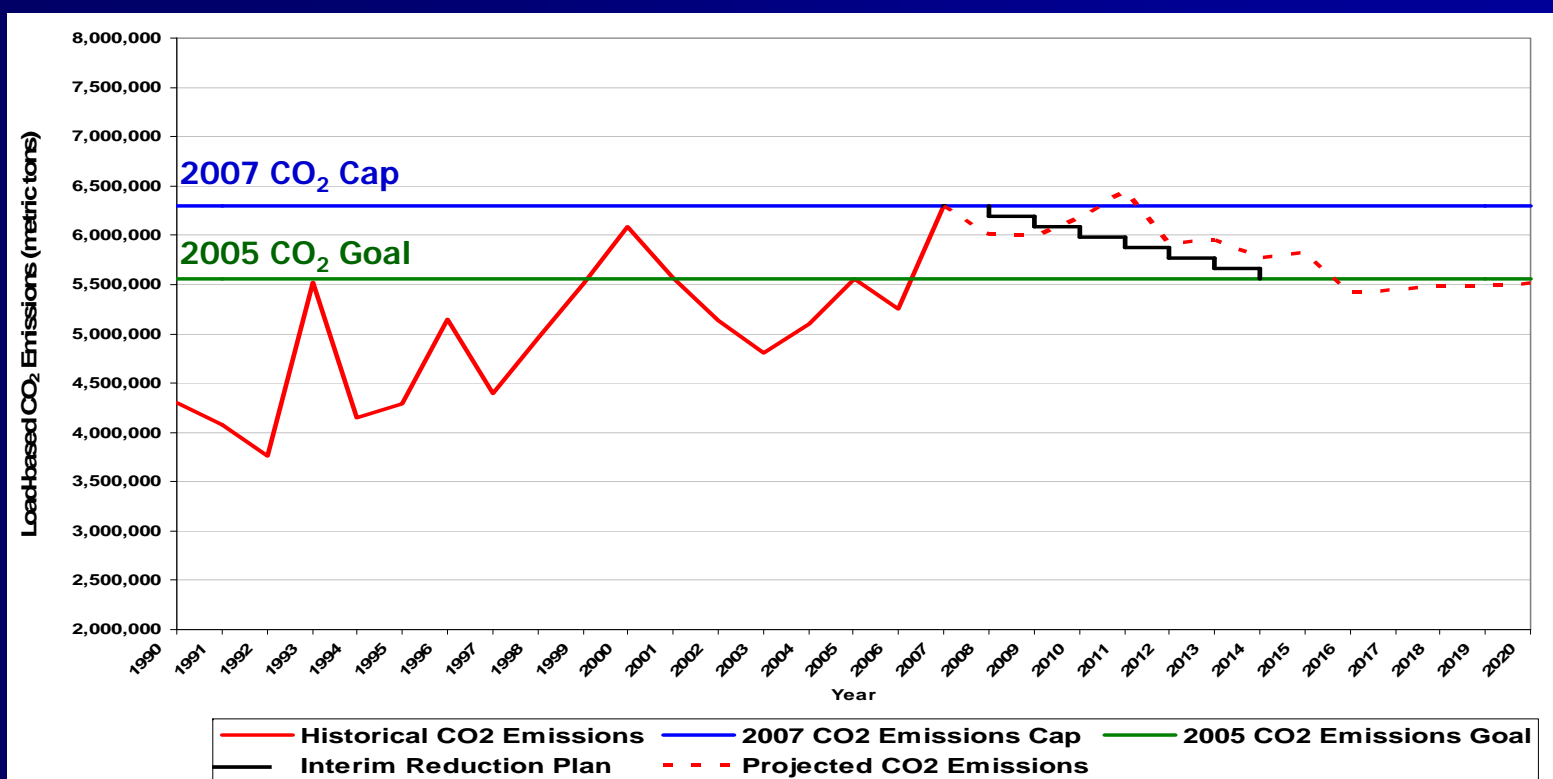
- CO₂ cap and reduction plan for existing generation
- New generation carbon-neutral
- 700 MW of energy demand savings by 2020
- 30% renewables, including 100 MW of solar, by 2020

■ Homes and Buildings Plan

- Building code changes to make
 - New single-family homes zero net-energy capable by 2015
 - All new buildings 75% more efficient by 2015
- Disclosure of historic energy use and cost-effective energy efficiency improvements upon sale of all buildings
- Enhance AE's Green Building program



Goal: CO₂ Cap & Reduction Plan



CO₂ Emissions Forecast Assumptions

- 700+ MW demand savings in 2020 through
 - Code changes
 - Expanded rebate offerings
 - Time-of-use billing
- 1300+ MW of renewables in 2020 through
 - Wind
 - Biomass
 - Solar
- 300 MW of new gas generation



Evaluate Options: CO₂ Cap

- Coal plant is our big, bad beast
=71% of total CO₂ emissions
- But options for coal are limited:
 - Can't sell it...
 - Can't control it (yet)...
 - Can't store it (yet)...



Evaluate Options: CO₂ Cap

Year	Offset Only Cost (in millions)	Fuel Switch + Offset Cost (in millions)
2008	\$0	\$0
2009	\$0	\$0
2010	\$1.6	\$41.9
2011	\$5.3	\$104.8
2012	\$1.4	\$29.0
2013	\$2.9	\$47.7
2014	\$7.6	\$29.8
Cumulative	\$18.8	\$253.2



Implement: CO₂ Cap

- Recommended strategy through 2014:
 - Continue business-as-usual (including provisions of Austin Climate Protection Plan)
 - Build 200 MW of new highly efficient, gas generation (combined cycle)
 - Purchase carbon offsets in short-term while technologies mature and regulation firms up





Questions?

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