

Sustainable Energy

Meeting the Energy Needs of the Future

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Austin's Sustainable Energy Heritage

- Austin's City Council has a long history of conservation and sustainable energy policy



Austin's Sustainable Energy Heritage



- The “Conservation Power Plant”
- 500 MW since 1982

Austin's Sustainable Energy Vision

- Council Energy Policy 2003
 - Energy Policy Resolutions
 - Austin, the Clean Energy Capital of the World



Austin's Sustainable Energy Vision

- Council Energy Policy 2003
 - Nation's leading Renewable Portfolio Standard
 - Memorandum of understanding with the World Wildlife Fund



Austin's Sustainable Energy Vision

- Council Energy Policy 2004
 - Establish Clean Energy Research and Development Center
 - Austin Energy to provide Clean Energy Transportation Sources



Austin's Sustainable Energy Vision

- Council Energy Policy 2005
 - Flexible-fuel plug-in hybrid vehicles incentive program
 - Establish similar incentive programs in the 50 largest cities in the United States



Plug in Hybrid

Austin's Sustainable Energy Vision

- Council Energy Policy and Economic Development
- Commercial Energy Efficiency Rebate Program
 - \$25M cumulative in rebates from 1985 - 2006
 - Total local economic impact: \$108M
 - 1,080 jobs estimated created

Austin's Sustainable Energy Vision

- Council Energy Policy and Economic Development
- Solar Rebate Program
 - 319 solar PV projects since 2004
 - \$4.2M in residential rebates
 - \$1.3M in commercial rebates
 - 9 participating solar contractors

Austin's Sustainable Energy Vision

- Austin Climate Protection Plan
 - Nationwide standard among cities in global warming campaign
 - Municipal activities carbon neutral
 - Power City facilities with 100% renewable energy
 - Convert City fleet to alternative fuels and electric power

Austin's Climate Protection Plan

- Carbon Limits For Austin
 - City Departments Climate Action Team
 - Reduce global warming gases from sources across community
 - Coordinate region-wide greenhouse gas reduction strategies
 - Support Federal and State policies

Austin's Climate Protection Plan

- Zero Energy Building by 2015

- Most energy efficient building codes in the nation
- Requiring all new single-family homes to be zero net-energy capable
- Increase energy efficiency in new private and public sector buildings by at least 75 percent



Austin's Climate Protection Plan

- Austin Energy

- 700 megawatts of new conservation and efficiency savings
- 30 percent of the utility's energy from renewable resources
- CO₂ cap and implement a CO₂ reduction plan for existing utility emissions
- Carbon neutrality on new generation units



Austin Energy's Approved 2003 Strategic Plan

Austin Energy's Mission:

*"To deliver clean, affordable,
reliable energy and excellent
customer service"*



Austin Energy's 10-Year Energy Resource Plan (ERP)

- Provides flexibility in early years
- Defer long-term commitments
- Adequate resources until 2008
- Increase conservation & renewables
- Closure of Holly Street power plant by September 30, 2007
- In compliance with the Austin Climate Protection Plan



Sustainable Energy Approach and Programs

- A survey of specific Programs:
 - Targeted Energy Audits
 - Austin's Plug-In Partners Campaign
 - Green Building Program
 - Life-Line Rate
 - GreenChoice®
 - Solar Rebates
 - Integrated Coal Gasification Combined Cycle (ICGCC)
 - Emerging Clean Energy Technology

Sustainable Energy Approach and Programs

- Targeted Energy Audits
 - February 2007, City Council passed a resolution aimed at reaching residential electric utility customers with the highest watts per square foot ratio that have not yet participated in any energy efficiency programs
 - Directs the development of a direct marketing campaign to further promote participation in Austin Energy's energy audit, rebate, and loan-buy down programs
 - Energy audits for residential customers will be performed by private contractors at no cost to the customer or Austin Energy
 - Some customers may qualify for the Free Weatherization Program



Sustainable Energy Approach and Programs

- Austin's Plug-In Partners Campaign
 - City of Austin Council initiative aimed at demonstrating that a market exists for plug-in hybrid electric vehicles
 - Operated through our municipal electric utility
 - Target three major issues: the national security risk caused by U.S. dependence on imported oil; greenhouse gas emissions from vehicles; and rising transportation costs
 - National campaign effort:
 - Garnering support in the form of online petitions and endorsements by cities across the country and by securing "soft" fleet orders
 - Developing rebates and supporting the tax incentives in the recently adopted National Energy Bill
 - Austin Energy has set aside \$1 million for PHEV rebates for our customers when PHEVs are made available
 - Positive response by the federal government, municipalities, counties, businesses, and the general public has demonstrated to car manufacturers the viability of this market

Sustainable Energy Approach and Programs

- Green Building Program
 - In 1985, City Council passed a resolution to create the Energy Star Program in an effort to delay the construction of a new power plant.
 - The Green Building Program evolved from the Energy Star Program® in 1991.
 - It is the country's first comprehensive program to encourage using sustainable building techniques in residential, Multi-Family, commercial, and municipal construction
 - From a simple home remodeling job to an entire development, the individual Green Building programs cover all levels of the construction process
 - Programs are available to commercial, residential and multi-family customers.
 - Publishes *The Sustainable Building Sourcebook: Information on 50+ Green Building Topics* which has become a national standard for green building concepts.



Sustainable Energy Approach and Programs

- Life-Line Rate
 - Created by an Austin City Council ordinance in 1994
 - Designed to provide a price break on residential customer electrical usage for the first 500 kilowatt-hours (kWh) per month (The first 500 kWh of usage is priced at 3.55 cents/kWh)
 - Customers enrolled in Supplemental Security Income, Medicaid aged, blind or disabled assistance, or one of Travis County's energy and/or medical assistance programs are eligible to have the \$6.00 monthly charge waved.
 - Over 5,000 customers currently enrolled

Sustainable Energy Approach and Programs

- GreenChoice®
 - Austin Energy's Renewable Energy Program
 - Available to residential and commercial customers
 - Offers the option to choose electricity from clean, renewable sources
 - Is the most successful utility-sponsored green power program in the nation with 665 million kWh in subscriptions
 - Current status: 9,152 residential subscribers and 471 commercial subscribers



Sustainable Energy Approach and Programs

- Solar Rebate Program
 - Offers solar rebates to our residential and commercial customers to help implement solar technology
 - Helps offset the cost of a solar photovoltaic electric system
 - Austin Energy offers customers one of the highest solar rebates in the country at \$4.50 per watt
 - This rebate level will pay between 45-75% of the cost of installation of a solar system
 - Current status: 337 residential participants and 17 commercial participants



Sustainable Energy Approach and Programs

- Integrated Coal Gasification Combine Cycle (ICGCC)
 - City Council passed a resolution in February 2007, to direct Austin Energy to use only “clean coal” technology in any future generation unit
 - Any new coal-fired generation unit is required to have emissions of carbon dioxide captured and sequestered or put to a beneficial reuse
 - ICGCC is the most viable technology at this time
 - Use of ICGCC or similar technology would reduce the carbon foot print of our utility
 - Sets standard for other electric utilities to follow in Texas when designing any new coal-fired power plants

Sustainable Energy Approach and Programs

- Emerging Clean Energy Technology
 - Partnership w/ Clean Energy Incubator (CEI) at the University of Texas
 - “Beta Testing” agreement between AE and CEI
 - AE Sponsor CleanTech Speakers Forum for Austin
 - Clean Energy Venture Summit – May 14-16
 - “Utility of the Future” – bring investors and entrepreneurs together to launch clean energy companies
 - SustainLane recognized Austin as the top Clean Tech Incubation City in the nation



Austin's Energy Policy Insights

- Today's energy challenges impact multiple sectors (political, industrial, consumer)
- Future solutions need to span sector boundaries fully to be effective
- Sustainable energy options are providing solutions to multiple energy challenges
- Local political initiatives can help create a national policy change
- The Green Building and Plug-in Hybrid campaign are examples of how a City can build effective partnerships and extend its policy "footprint" beyond its borders
- Properly designed partnerships and collaborative efforts can create economic development and risk mitigation opportunities