

City of Houston

Mayor's Office of Environmental Programming

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Environmental Communications Manager

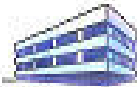


Mayor's Office of Environmental Programming



Building Services

- *Building Efficiency
- *Energy Procurement
- *Fleet Management



Legal Department

- *Ordinances
- *Compliance
- *Legislative Comments
- *Enforcement



Health Department

- *Air Quality
- *Water Quality
- *Human Health
- *Consumer Health
- *Occupational Health
- *Animal Control
- *Children's Health



Public Works & Engineering

- *Stormwater
- *Municipal Drinkingwater
- *Utilities



Planning Department

- *Transit Oriented Development
- *Green Space
- *Super Neighborhoods

Mayor's Office



Environmental Programming



Police Department

- *City Council Clean-Up
- *Neighborhood Protection
- *Investigation



Parks and Recreation

- *Park Management
- *Tree Inventory
- *Operational Emissions



Airport System

- *Transportation
- *Tenant Emissions
- *Operations



Solid Waste

- *Recycling
- *HHW
- *Refuse Collection



Fire Department

- * Disaster Response



Renewable Energy Procurement



The city spent approximately \$150 million during the last fiscal year on electricity, paying a rate of roughly \$91 per 1,000-kilowatt hours; \$30 million over budget.



Renewable Energy Procurement



The Mayor looked to change the source of energy after hurricanes Katrina and Rita – in 2004 – disrupted the production and delivery of natural gas – the common fuel at Texas power plants – prompting electricity prices to soar. And, to promote the use of “green power.”



Renewable Energy Procurement



Wind Power was settled on as an alternative source.

According to our research, wind energy was more cost effective.



Renewable Energy Procurement

- Original Energy Contract (April 2004)
 - Number of ESID's (meters) ~4100
 - Energy consumption about 1.3 Billion kWh per year
 - Peak demand 240MW (240 million watts)
 - Average demand 160MW (160 million watts)
 - Load factor 78%
 - Expiration date June 30, 2007



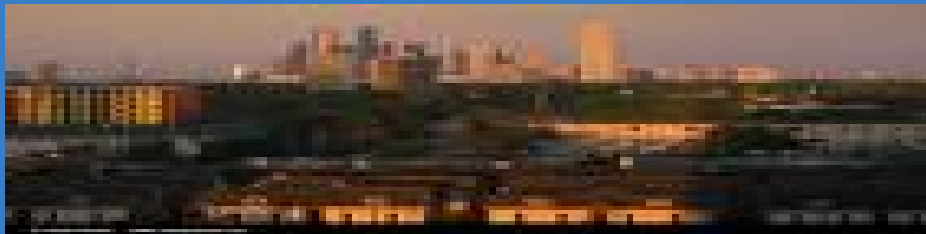
Renewable Energy Procurement

- Renewable Energy Strategy
 - Council approval to bring in up to 80 megawatts, or 700,800,000 kilowatt-hours, of renewable power which represents 50% of the City's total power.
 - Negotiated structure that comprises third party wholesalers, Reliant Energy, the Government Land Office, and City of Houston to transact long-term wind power.



Renewable Energy Procurement

- Renewable Energy Strategy Continued.
 - The strategy is to purchase wind power in 10-megawatt increments for 5-year terms at competitive wholesale prices, thereby saving tax payer dollars.



Renewable Energy Procurement

- Restructured Contract - Post Katrina/Rita Hurricanes (January 2006)
 - Contract extension eliminates exposure to increased market prices through June 30, 2009.
 - Additional risk management tools allows the City greater flexibility in managing exposure to natural gas prices.
 - Diversity in electricity portfolio.
- Annual Cost: approximately \$150 million (approximately \$411,000 per day)



Renewable Energy Procurement

- The City has currently procured 30 MW of wind energy.
 - 262,800,000 kWh.
 - 20% of current load.
 - 1.3 billion kWh over the contracted 5 years.



Renewable Energy Procurement

Annual Green Power Usage (kWh)	GP % of Total Electricity Use*	Green Power Resources	Providers
1. City of Dallas, TX			
333,659,840	40%	Wind	Gexa Energy, Reliant Energy, Suez Energy Resources NA
2. City of Houston, TX			
262,800,000	20%	Wind	Reliant Energy
3. Los Angeles County Sanitation Districts			
171,144,000	54%	Biogas	On-site Generation
4. Washington Suburban Sanitary Commission			
70,000,000	33%	Wind	Constellation NewEnergy
5. City of San Diego, CA			
66,618,000	26%	Biogas, Small-hydro, Solar	On-site Generation
6. Montgomery County Wind Buyers Group			
65,900,000	10%	Wind	Washington Gas Energy Services
7. City of Austin, TX			
58,711,000	15%	Biogas, Wind	Austin Energy
8. Austin (TX) Independent School District			
45,720,000	28%	Biogas, Wind	Austin Energy
9. San Jose/Santa Clara Water Pollution Control Plant			
44,756,718	49%	Biogas	On-site Generation



Renewable Energy Procurement



The City is currently using solar panels as part of our energy diversification. Solar panels have been installed at our code enforcement building and City Hall Annex, and will soon be operational.



Renewable Energy Procurement

For further information or details about our wind energy contract, please email me, and I will direct your question to the appropriate person.

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