Getting the Rates Right

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Opportunities

- Lower bills
- Lower demand for peak power
- Create incentives for ways to decarbonize power production by 80% by 2050
- Help low income families and tenants reduce their energy use
- Reward zero or near zero energy new homes

Do and Don'ts

- DO set prices for usage to reflect all relevant long run costs, including production, transmission, distribution, administrative, customer service, and environmental costs.
- DO set the basic charge at a level that includes only the utility's costs that vary by the number of customers.
- DO consider inclining block rates for residential
- DO design rates to allow consumers to recognize higher resource costs in the future and typically greater use of power during peak periods by high-use consumers.
- DO let customers choose a pricing option that varies according to time of day or market and system conditions and make it easy for consumers who choose time varying rates to shift energy use from peak load hours.
- DO display the rate structure on the consumer's bill in a way that conveys the cost (savings) from increased (decreased) usage

- DON'T raise the fixed customer charge to address the utility throughput incentive.
- DON'T price kilowatt-hours cheaper by the dozen.
- DON'T force consumers onto complex rate designs that they cannot understand or respond to.
- DON'T shift risks with automatic adjustment mechanisms without considering the impact on consumers and adjusting the utility's allowed rate of return.

Both Of These Rates Generate The Same Average Revenue / kWh

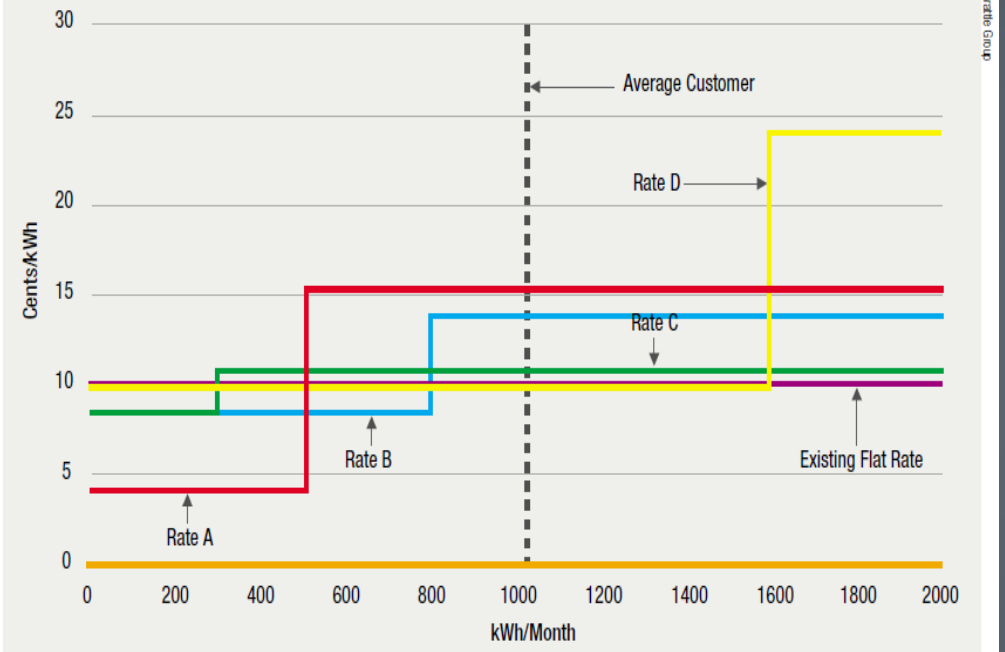
High Fixed Charge			
Customer Charge		Per Month	$ 30.00
Energy Charge		All kWh	$ 0.100

Marginal Cost Based Endblock			
Customer Charge		Per Month	$ 5.00
Energy Charge		First 500 kWh	$ 0.100
		Next 500 kWh	$ 0.150
		Over 1,000 kWh	$ 0.180

Which rate makes it more likely a customer will invest in an Energy Star A/C Unit?

Inclining the rates as consumption increases will deter waste

Fig. 2 **Alternative Inclining Block Rates**



Based on empirical estimates of price elasticity from a number of different sources, inclining block rates can provide energy consumption savings in the 6 percent range over a few years and even higher savings over the long run.

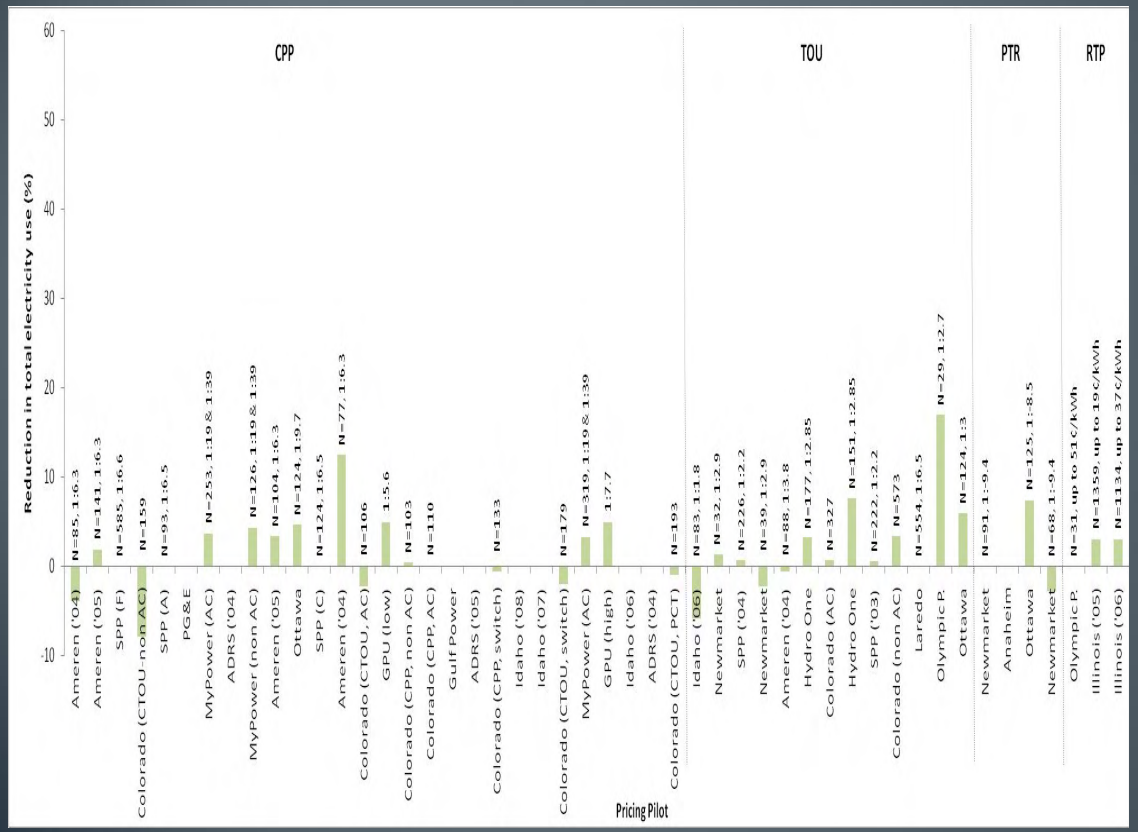
Customer bills decline in the aggregat by 9.1 percent. Long-run responses are much higher, with the mean drop in usage at 18.4 percent and the mean drop in customer bills at 28.4 percent.

26 Public Utilities Fortnightly August 2008

In order to achieve the dual goals of energy efficiency and demand response, it would be useful to couple inclining block rates with dynamic pricing.

Time of use rates

You've got the fancy smart meters- lets create an optional program to use them



- Average peak consumption for time of use rate participants was 11.1% lower than that of the average comparison group participant.

BC Hydro's Advanced Metering Initiative (AMI), winter 2006/07

- In California- the analysis of customer bill change indicates that low-use customers saved an average of 4.0% on their electricity bills, while high-use customers saved an average of only 1.7%.

Residential implementation of critical-peak pricing of electricity
http://www.osti.gov/bridge/servlets/purl/920340-RkvEg6/920340.pdf

We support the low user (solar) block rate and by- back rates based on value of solar study

- We support the $30 for 300 kWh block rate
- We support using the buyback rate established by the value of solar study
- That will give clear signals to builders and buyers of net zero homes for making the business case to funders

Energy savings account

- In the 2010 years Austin energy customers invested $19 million in energy efficiency and saved $86 million
- Your monthly deposit of 0.75 cents per month in the energy savings account will allow Austin energy to save $760 million by 2020

  (@1000 MW x $760 per kW for a new gas plant)

Energy Trust

- Put the Energy Savings Account contributions from tenants into a trust account that can fund efficiency improvements in renter occupied dwellings and businesses. Some of the those cost might be recovered via a shared saving plan
- Energy Trust of Oregon offers cash incentives for upgrades to windows, appliances, water heaters, building envelope, heating and cooling, energy efficient lighting and more.

Summary

We support:

- Inclining block rates - the more you use the more you pay
- Time of use rates
- Solar block rate with payments based on value of solar study
- Create an “energy savings account”
- Fund an energy trust for tenant occupied buildings

Austin Energy Rate Hearing
Comments of Mike Sloan
Sep. 19, 2011

1) There is a wide spectrum of rate design in Texas -- some companies allocate costs heavier to residential customers, some heavier to industrial customers.

2) Austin Energy's spending has been very high in recent years. Should future utility budgets focus on reducing spending or increasing revenues?

3) High fixed delivery charge are not standard practice in Texas and would reduce economic justification for future energy efficiency & rooftop solar.

4) Future Energy Bills will be driven by current resource decisions: if the utility reduces use of low cost resources or adds high cost resources, bills will increase.

ASKS

Please establish business model that strives for QUALITY over QUANTITY.

Delivery Cost breakout by geographic area – are costs driven by new development?

Comparison of supply options on a basis of Revenue Requirement per MWh.

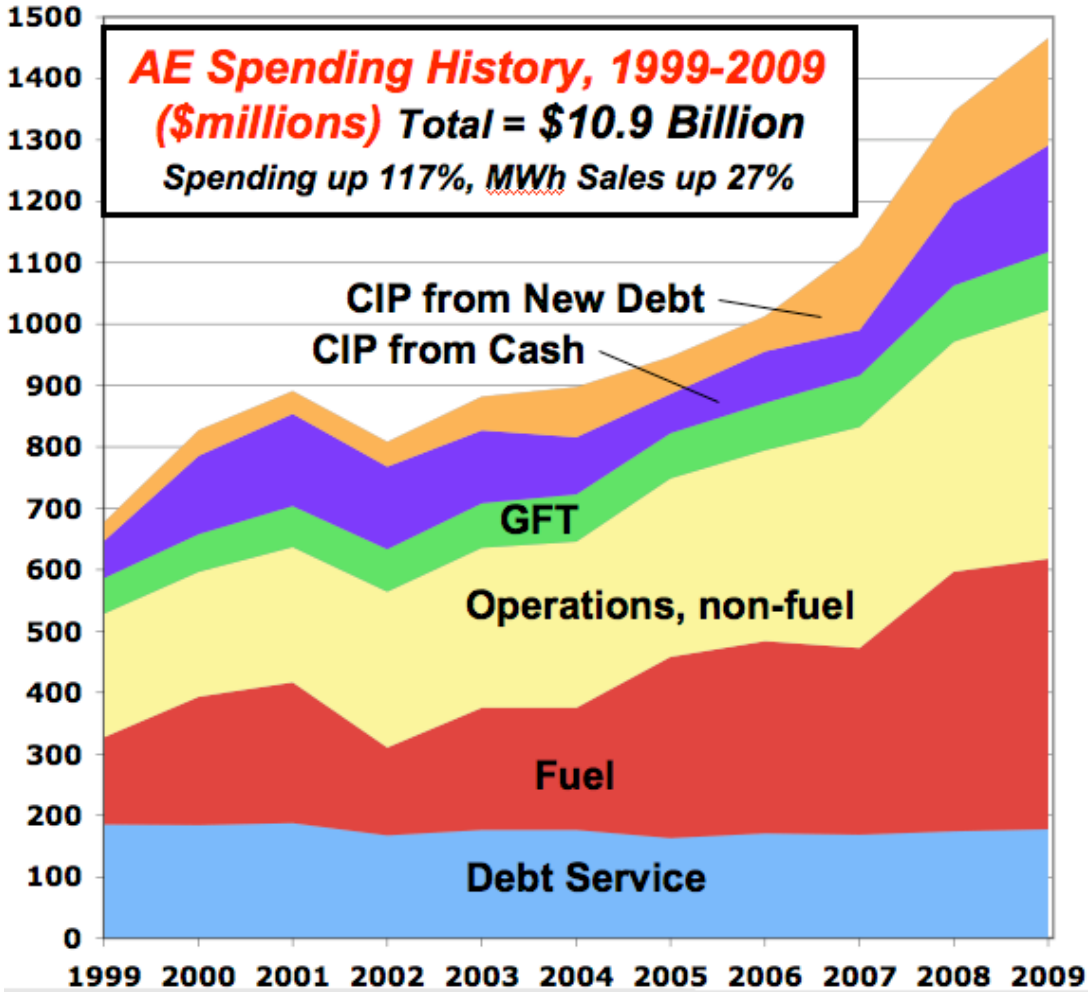
Texas Electric Rates 2009 - Select Entities
(arranged by % that Residential Rate is > Industrial Rate)

Entity	Class of Ownership	RESIDENTIAL Retail Price (cents/kWh)	COMMERCIAL Retail Price (cents/kWh)	INDUSTRIAL Retail Price (cents/kWh)	% Residential Rate is higher than IND Rate
Taylor Electric Coop Inc	Cooperative	13.13	10.83	5.39	144%
Guadalupe Valley Elec Coop Inc	Cooperative	10.30	8.83	4.31	139%
Reliant Energy Retail Services LLC	Power Marketer	15.34	15.39	7.23	**112%**
City of San Marcos	Public	16.91	10.08	8.62	96%
Southwestern Public Service Co	Investor Owned	8.27	6.71	4.24	**95%**
El Paso Electric Co	Investor Owned	10.99	9.53	5.88	**87%**
Georgetown City of	Public	12.52	11.11	7.62	64%
Austin Energy	**Public**	**9.50**	**8.60**	**5.89**	**61%**
City of Garland	Public	11.92	10.50	7.45	60%
Entergy Texas Inc.	Investor Owned	9.35	7.84	5.91	**58%**
TXU Energy Retail Co LP	Power Marketer	13.59	14.70	8.75	**55%**
Southwestern Electric Power Co	Investor Owned	7.38	6.03	5.24	**41%**
San Antonio City of	**Public**	**8.74**	**7.47**	**6.28**	**39%**
City of Lubbock	Public	8.57	6.76	6.31	36%
Pedernales Electric Coop, Inc	Cooperative	12.19	11.34	9.10	34%
Brownsville Public Utilities Board	Public	9.37	13.80	7.13	31%
Seguin City of	Public	11.00	10.55	8.43	30%
City of Denton	Public	10.17	10.02	7.82	30%
City of New Braunfels	Public	8.20	7.37	6.44	27%
Bluebonnet Electric Coop, Inc	Cooperative	10.36	11.05	8.20	26%
Cap Rock Energy Corporation	Investor Owned	10.47	10.32	8.47	24%
City of Burnet	Public	12.16	12.35	10.20	19%
City of Lockhart	Public	10.95	11.60	9.81	12%
City of Shiner	Public	10.39	9.82	11.16	-7%
First Choice Power	Power Marketer	14.44	13.16	18.81	-23%

Electric Rates 2009 - 8 Largest Muni Utilities in TX
(arranged by % that Residential Rate is > Industrial Rate)

	Entity	Class of Ownership	RESIDENTIAL Retail Price (cents/kWh)	COMMERCIAL Retail Price (cents/kWh)	INDUSTRIAL Retail Price (cents/kWh)	% Residential Rate is higher than IND Rate
1	**Austin Energy**	**Public**	**9.50**	**8.60**	**5.89**	**61%**
2	City of Garland	Public	11.92	10.50	7.45	60%
3	**San Antonio City of**	**Public**	**8.74**	**7.47**	**6.28**	**39%**
4	City of Lubbock	Public	8.57	6.76	6.31	36%
5	Brownsville Public Utilities Board	Public	9.37	13.80	7.13	31%
6	City of Denton	Public	10.17	10.02	7.82	30%
7	City of New Braunfels	Public	8.20	7.37	6.44	27%
8	City of Bryan	Public	9.85	9.11	7.78	27%

DISCLAIMER: Informal effort to estimate AE spending based on data mined from various AE budget documents & AE presentations. Not comprehensive, but likely reflective of major trends.



All values = $ million, unless noted	AE 1999	AE 2009	Change 1999-2009	Change: $ per MWh sold 1999-2009	Change per MWh sold 1999-2009
Energy Sales (million MWh)	9.3	11.8	**27%**	n/a	n/a
TOTAL Spending	677	1468	**117%**	**$ 51.62**	71%
Fuel Costs	142	443	211%	**$ 22.24**	145%
Operations (not including fuel costs)	*201*	*405*	102%	**$ 12.73**	59%
Energy Efficiency Rebates	15.39	14.99	-3%	**$ (0.38)**	-23%
CIP (Capital Improvement Plan)					
CIP - Total Budget	90	*348*	284%	**$ 19.73**	203%
CIP Transfers (from cash)	60	*173*	186%	**$ 8.16**	126%
Cash as $ of Total CIP	67%	50%			
Financed as New Debt for City	30	*174.6*	482%	**$ 11.57**	359%
General Fund Transfer	58	95	64%	**$ 1.81**	29%
Debt Service	186	178	-4%	**$ (4.89)**	-24%
Other					
Utility Surplus/Deficit	**Surplus**	**Deficit**		**Deficit**	

WIRES RATES COMPARISON

Residential

Charge	Oncor Electric Delivery	Centerpoint	AEP Central	AEP North	TNMP
Customer Charge	$2.74 /cust/month	$2.09 /cust/month	$3.19 /cust/month	$2.94 /cust/month	$0.33 /cust/month
Metering Charge	$2.21 /cust/month	$1.79 /cust/month	$3.55 /cust/month	$5.24 /cust/month	$3.58 /cust/month
Subtotal, Fixed Charges	$4.95 /cust/month	$3.88 /cust/month	$6.74 /cust/month	$8.18 /cust/month	$3.91 /cust/month
Distribution System Charge	$0.014070 /kWh	$0.017648 /kWh	$0.013915 /kWh	$0.019007 /kWh	$0.017291 /kWh
Transmission System Charge	$0.004493 /kWh	$0.005342 /kWh	$0.005190 /kWh	$0.005803 /kWh	$0.004150 /kWh
Transmission Cost Recovery Factor as of 3/1/09	$0.002189 /kWh	$0.001430 /kWh	$0.001072 /kWh	$0.001156 /kWh	$0.002393 /kWh
Subtotal, Basic Wires Charges	$0.020752 /kWh	$0.024420 /kWh	$0.020177 /kWh	$0.025966 /kWh	$0.023834 /kWh
Other					
Base Rate Reduction (per kWh)	n/a	n/a	n/a	n/a	($0.001993) /kWh
Base Rate Reduction (per Customer)	n/a	n/a	n/a	n/a	($0.33) /cust/month
Customer Charge and Wires Charge (no non-bypassable charges) 1,000 kWh	**$25.70**	**$28.30**	**$26.92**	**$34.15**	**$25.42**
Customer Charge and Wires Charge (no non-bypassable charges) 1,500 kWh	**$36.08**	**$40.51**	**$37.01**	**$47.13**	**$36.34**
Non-Bypassible Charges					
System Benefit Fund	$0.000655 /kWh	$0.000655 /kWh	$0.000662 /kWh	$0.000660 /kWh	$0.000654 /kWh
Nuclear Decommissioning Charge	$0.000169 /kWh	$0.000049 /kWh	$0.000182 /kWh	n/a	n/a
Transition Charge	$0.001506 /kWh	$0.005050 /kWh	$0.012309 /kWh	n/a	n/a
Excess Mitigation Credit	Expired 12/31/03	Expired 4/30/05	Deleted per Dkt. 31056	n/a	n/a
Competition Transition Charge					$0.002910 /kWh
Rate Case Surcharge			$0.000189 /kWh	$0.000067	$0.000310 /kWh
UCOS Retail Credit		($0.000059) /kWh			
Energy Efficiency Cost Recovery Factor	$0.22 /cust/month		$0.000539 /kWh		
Advanced Metering Cost Recovery Factor	$2.21 /cust/month	$3.24 /cust/month			
Total Wires Charge for 1,000 kWh	**$30.46**	**$37.24**	**$40.80**	**$34.87**	**$29.30**
Total Wires Charge for 1,500 kWh	**$42.00**	**$52.29**	**$57.83**	**$48.22**	**$42.15**

Source: TDU Tariffs for Retail Delivery Service, as of April 1, 2009.

Pace and AE Calculation Methods

Strawman Example

Pace Cost Increase Calulation

	Forecast 2009	2020	Change	%
Fuel Cost per MWh	$ 26.05	$ 34.47	$ 8.42	32.3%
Non-Fuel Production Cost per MWh	23.20	29.08	5.88	25.3%
Total Production Cost	$ 49.24	$ 63.54	$ 14.30	29.0%

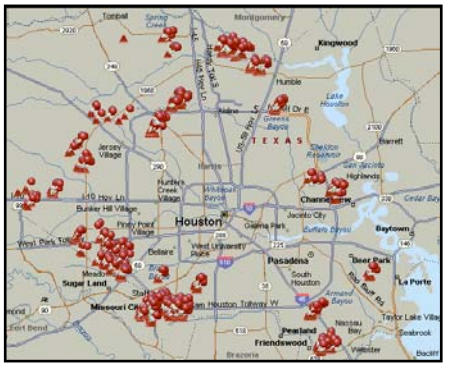
Staff Rate Impact Change

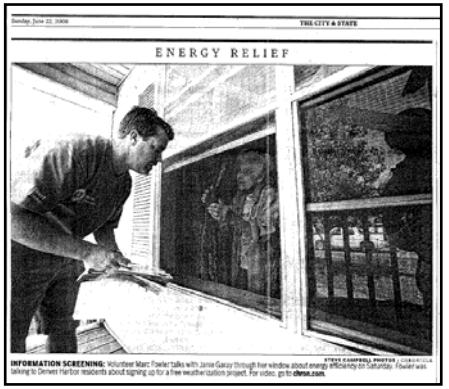
	Current Rates	2020	Change	%
System Wide Fuel Factor	$ 36.35	$ 34.47	$ (1.88)	-5.2%
Current Production Rate Estimate based on 2007 filing	19.75	29.08	9.33	47.2%
Total Production Cost	$ 56.10	$ 63.54	$ 7.44	13.3%
Add Wires	18.35	18.35	-	0.0%
Add Coverage	12.51	18.56	6.05	48.4%
Austin Energy System Rate	$ 86.96	$ 100.46	$ 13.50	15.5%

- Different starting point -2009 Estimate vs Current Rates
- Fuel is the primary difference
  - Pace used market rate for gas
  - Pace did not include ERCOT fees (4-6% of fuel)

Systematic approach to weatherization

1. Create energy savings funds
2. Maximize impact of funds by:
    - Target Super Neighborhoods
    - Involve local community leaders
    - Neighborhood Kickoff Parties and Block Walks
    - Customer enrollment and verification made easy
    - Home assessment made easy through use of technology
    - Energy efficiency measures are implemented in a timely fashion (less “out of work” time for recipient)
    - “production style” process gives greatest energy savings for dollars spent and increased customer satisfaction
    - QAQC – Savings verification
    - Customer satisfaction surveys





WXR Low Income Program History

Program to date spending and savings

- $2,790 average spend per home (This includes HVAC system replacements)
- 64% homeowner participation by neighborhood
- 19% average participant's energy savings

Year	Total Homes	HTR and RES Homes	JOC	TDHCA	TDHCA MF	AIA
2007	442	442	-	-	-	-
2008	2,920	2,214	586	-	-	120
2009	2,482	1,613	662	-	-	207
2010	2,332	1,672	-	424	-	236
2011*	1,628	243	-	426	908	51
Total	10,367	6,184	1,248	850	908	614

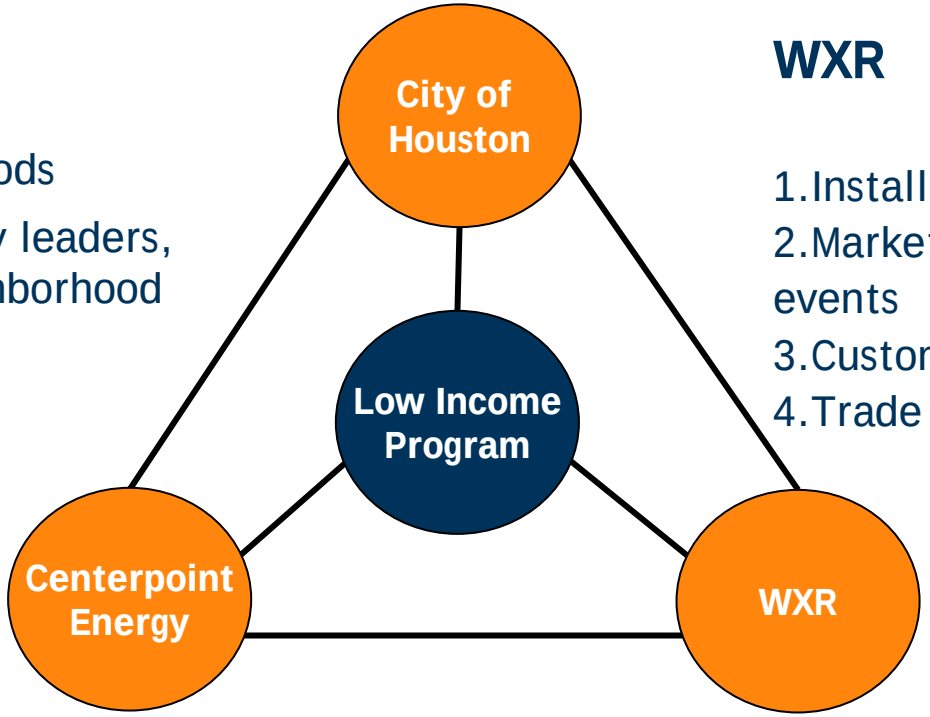
* As of August 2011

Partnering For Success – Public/Private Partnerships

Responsibilities

City of Houston

1. Targeting Neighborhoods
2. Marketing- community leaders, Block Parties, and Neighborhood Walks
3. Customer Enrollment
4. Program Branding
5. TDHCA Funding



WXR

1. Installing measures
2. Marketing- Participating in events
3. Customer education
4. Trade ally management

Centerpoint Energy

1. Funding
2. Energy Savings verification