



# Austin Energy Resource, Generation and Climate Protection Plan Implementation

*Mission: Deliver clean, affordable, reliable energy and excellent customer service.*

Larry Weis, General Manager

November 15, 2010



# Background and History

- **Generation plan developed in 2008 and 2009 as Austin Energy's response to City's 2007 climate protection plan**
- **Financial stress on AE revenues raised concerns regarding the generation plan implementation**
  - **Economy, energy markets and other factors**
- **Financial assessment of Austin Energy**
- **April 22, 2010 City Council approved generation plan with a goal of 35% of annual power supply from renewable sources by 2020**
  - **Plan is flexible and dynamic, and emphasizes affordability as a fundamental element**
  - **Dependent on City Council's approval of method to measure the plan's affordability to customers by December 31, 2010**



AE = Austin Energy



# 2010 Generation Plan Implementation Tasks

- **Benchmarking**
  - Determining current rate competitiveness within Texas for residential, commercial and industrial customers
  - Determining impacts and affordability of generation
  - Program cost comparison with other utilities
- **Affordability Forecast**
  - Develop a template/tool to measure and forecast affordability
- **Annual updates with 5 Year Financial Forecast**



# 2011 Generation Plan Implementation Tasks

- **Retail rate design**
  - **Development of master schedule for rate implementation**
  - **Cost of service studies**
  - **Public involvement committee process**
  - **General Fund Transfer policy**
- **Rate pricing and implementation**



# **Benchmarking Rates with Comparable Utilities**

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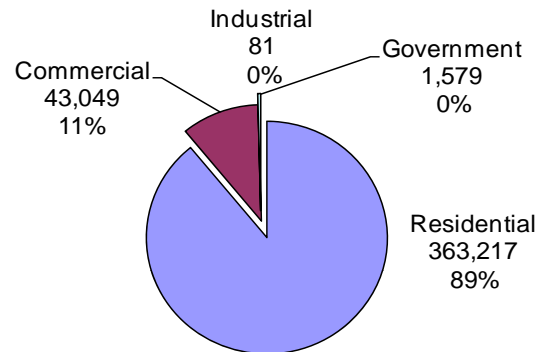
# Benchmarking Rates with Comparable Utilities

- Benchmarking tool proposed for annual use
- Comparisons of Austin Energy customer costs for electricity to other Texas utilities and retail electric providers (REP)
  - By customer class (residential, commercial, industrial)
- Benchmarking to be updated annually with 5 Year Financial Forecast
- Data prepared independent of Austin Energy by R.W. Beck, An SAIC Company and R. J. Covington Consulting, LLC
- Electricity burden for low income residents prepared by Austin Energy
- Web link to reports
  - <http://www.austinenenergy.com/About%20Us/Newsroom/Reports/index.htm>

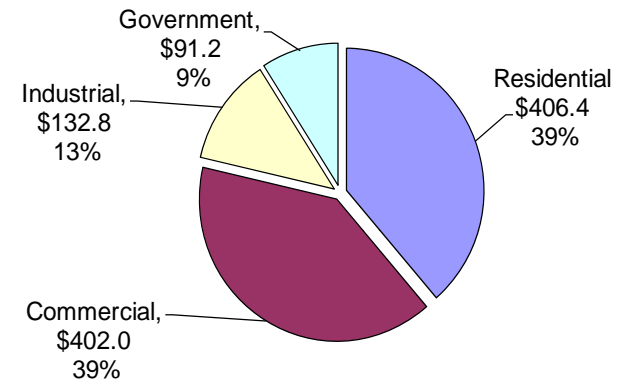


# Benchmarking – 2009 Revenue/Customer Profile

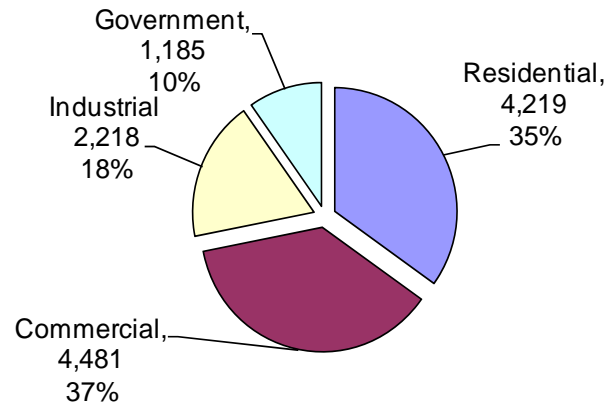
2009 Average Number of Bills  
by Customer Class  
407,926



2009 Revenue by Customer Class  
(in millions)  
\$1,032.4 M



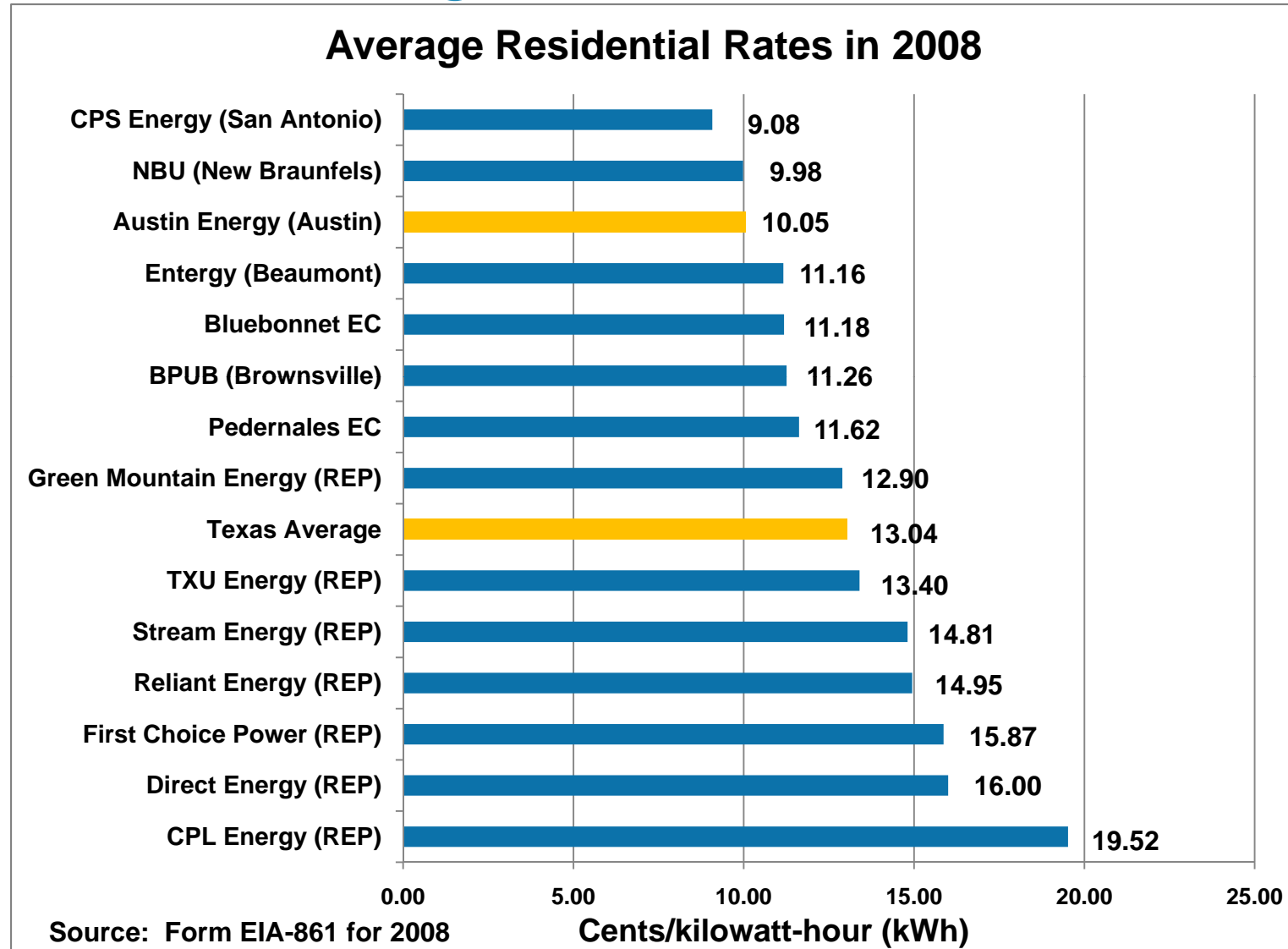
2009 gWh Sales by Customer Class  
12,103 gWh



- Customer profile stable from year to year.
- Residential - 89% of customers provide 39% of revenue.
- Commercial & Industrial - 11% of customers provide 52% of revenue.
- 2010 data not yet available.

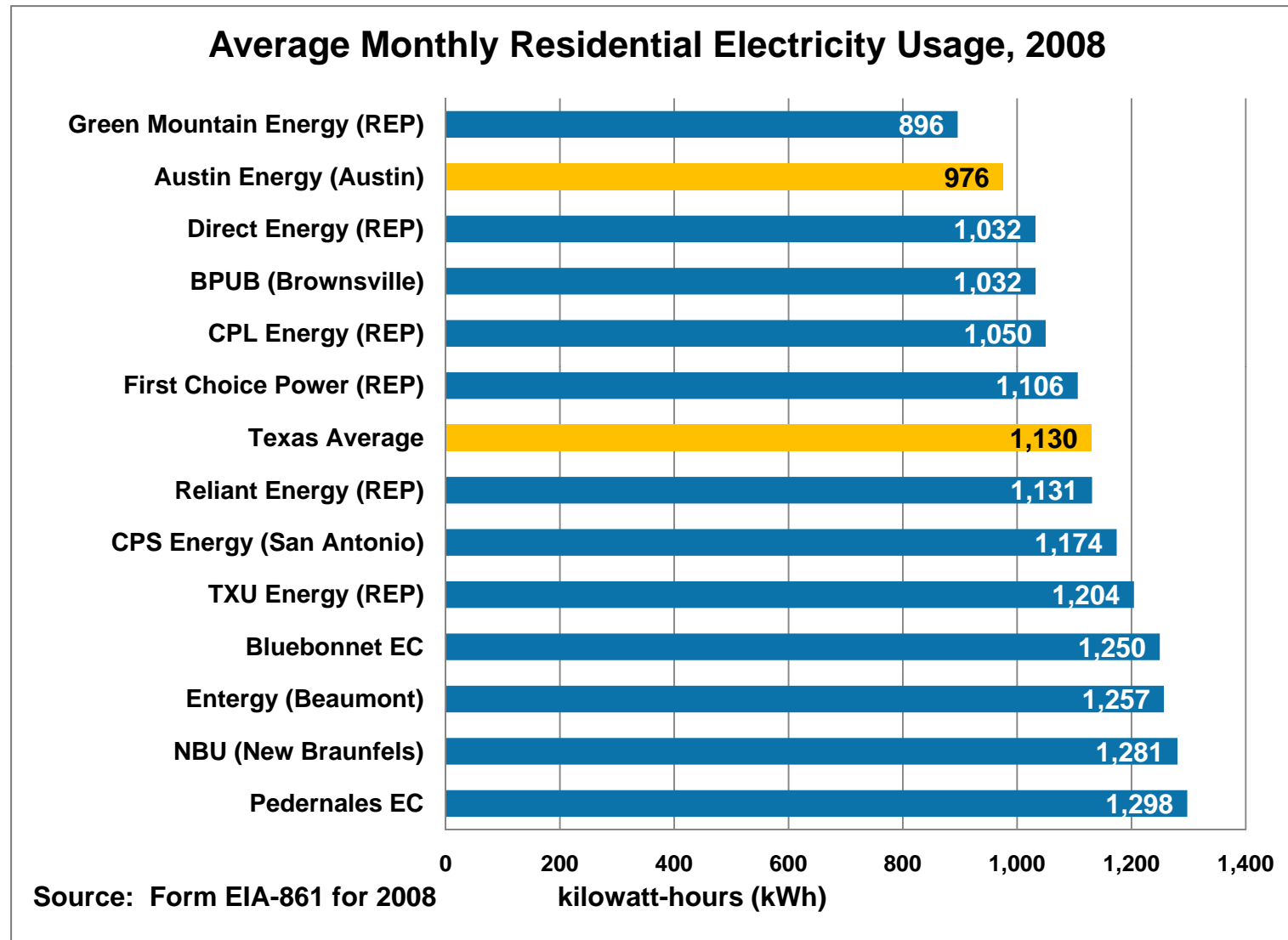


# Benchmarking - Residential Rates



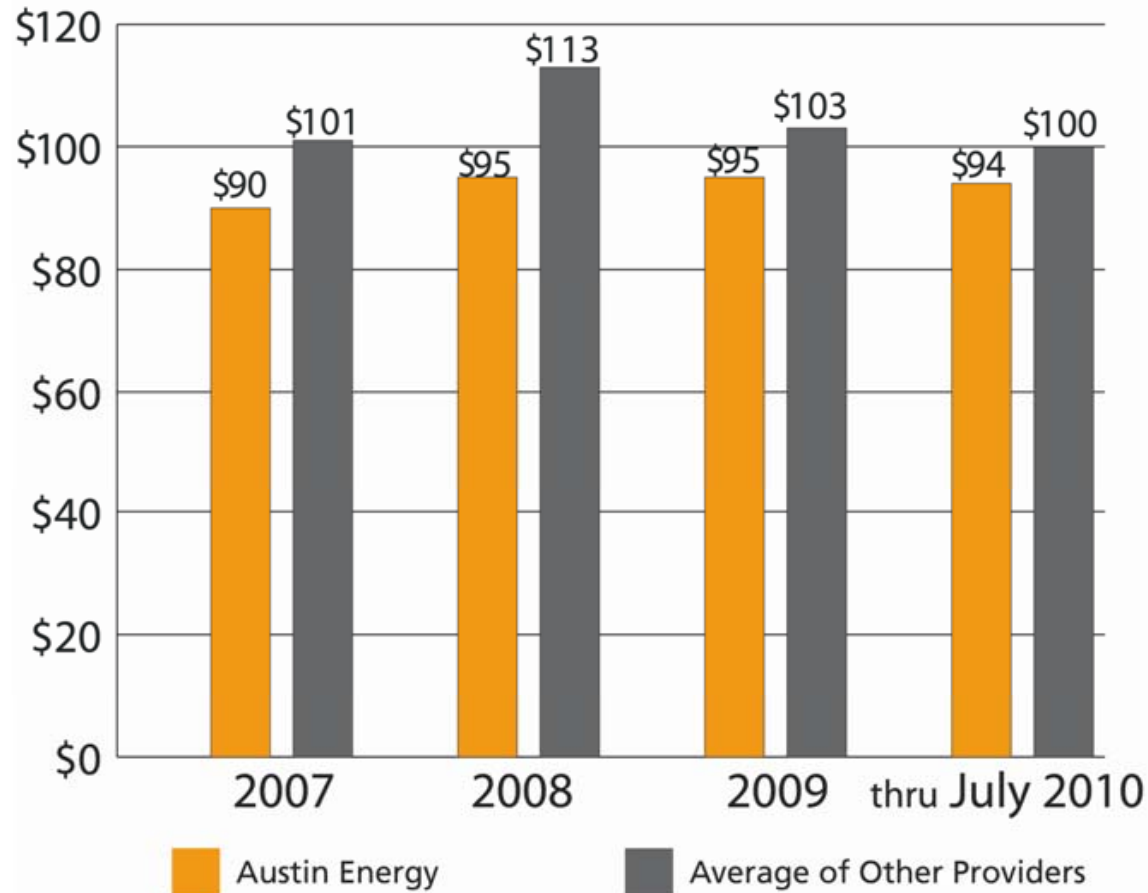


# Benchmarking - Residential Usage



# Benchmarking - Residential Bill (1,000 kWh)

Average Monthly Electric Bill at 1,000 kWh from 2007 thru July 2010:  
Austin Energy Compared to Other Texas Electric Services

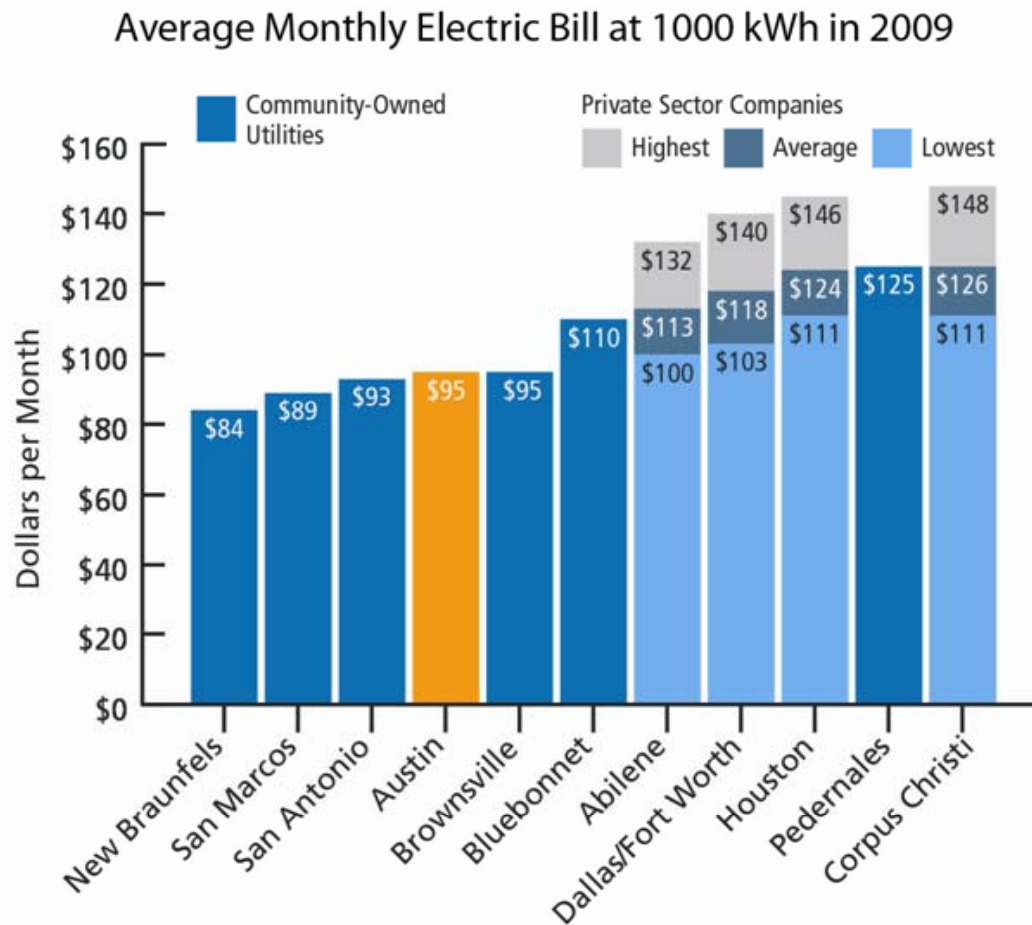


Source: RW Beck Residential Benchmark Study, 2010

NOTE: Electric rates will vary for different consumption levels. The average monthly usage for Austin Energy customers is 976 kWh.



# Benchmarking - Residential Bill (1,000 kWh)



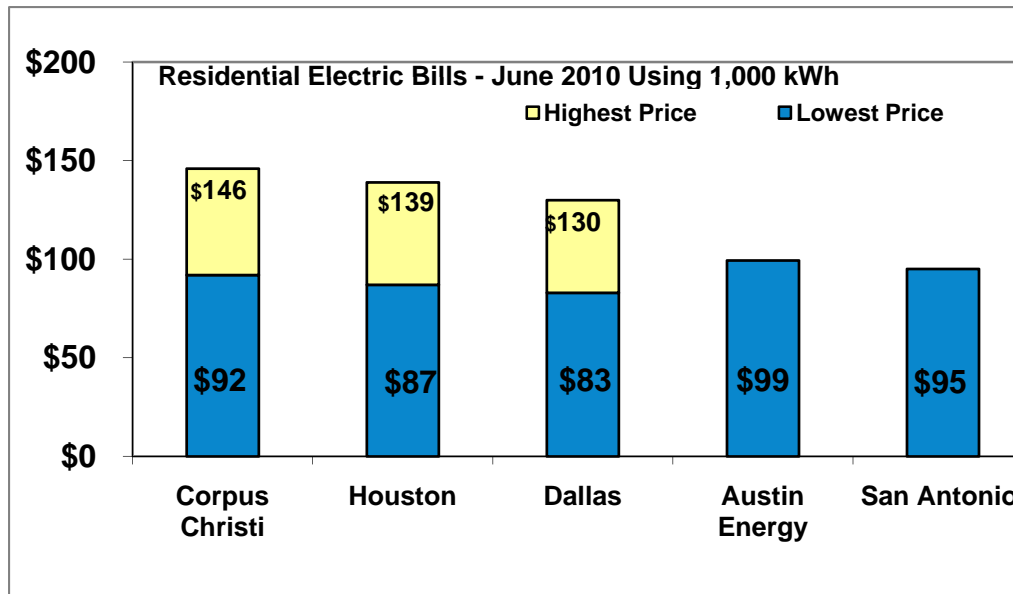
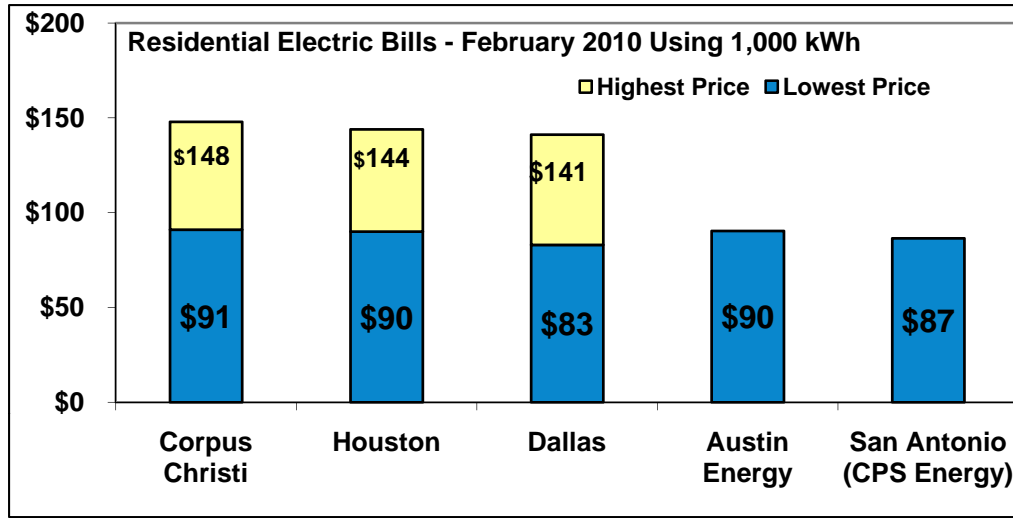
Source: RW Beck Residential Benchmark Study, 2010

NOTE: Electric rates will vary for different consumption levels.

The average monthly usage for Austin Energy customers is 976 kWh.



# Benchmarking - Residential Bill (1,000 kWh)



## 2010 Electric Bills Major Texas Cities

**Summer 2010 and Winter 2010 bill comparison.**

**AE retail rates are competitive with those in major Texas cities.**

Charts provided for informational purposes only.  
Average usage will vary by city.  
Prices may vary by season and usage.

Source: Public Utility Commission of Texas.  
Additional information on Texas providers can be found at [www.puc.state.tx.us](http://www.puc.state.tx.us).

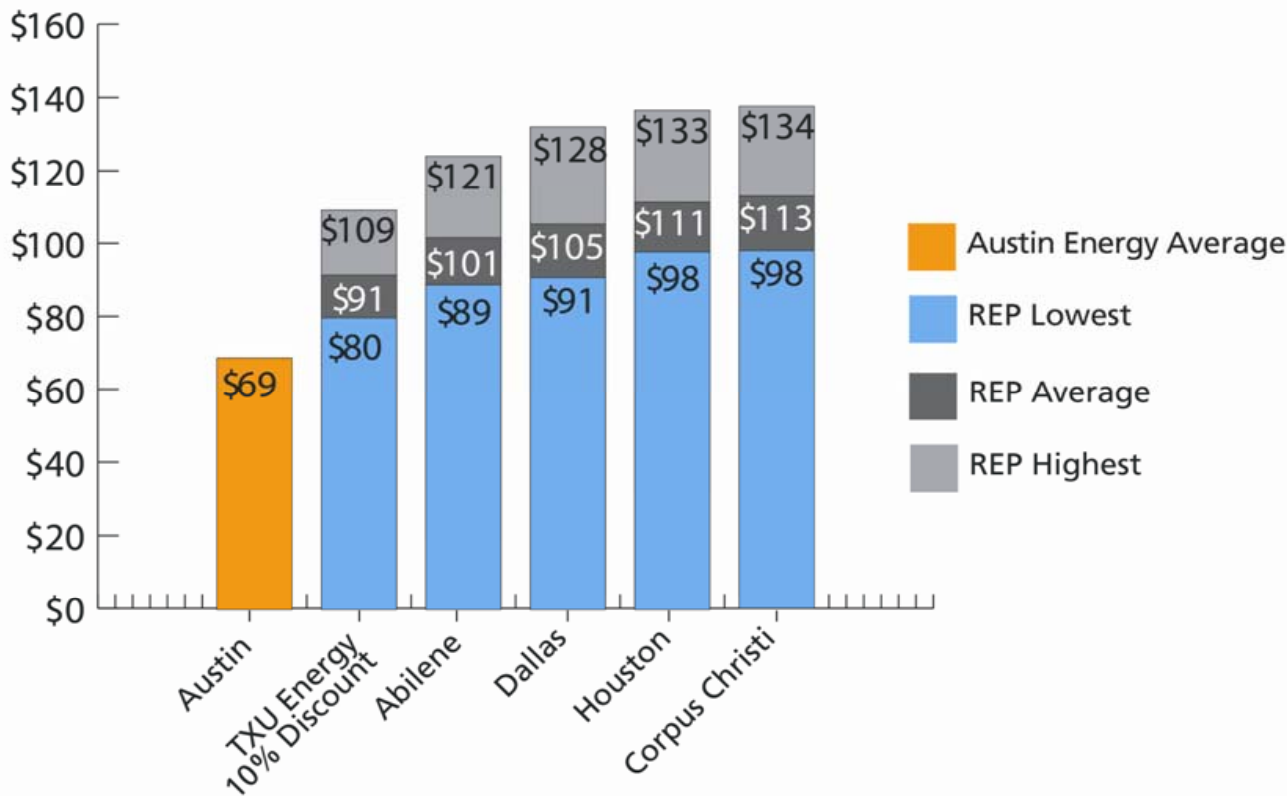
Average residential customer usage in Austin  
June 2010 at 1,098 kWh.  
February 2010 at 808 kWh.



# Benchmarking - Low Income Residential Bill (1,000 kWh)

Austin Energy offers low income residential discounts and first 500 kWh per month at 3.5 cents per kWh.

Average Monthly Electric Bill at 1,000 kWh in 2009 for Low Income Residents



Source: RW Beck Residential Benchmark Study, 2010

NOTE: Electric rates will vary for different consumption levels. The average monthly usage for Austin Energy customers is 976 kWh.

REP = Retail Electric Provider  
kWh = kilowatt-hours



# Benchmarking - Household Income & Electricity Burden

Household Income and Electricity Burden Measures: Austin Compared to the State of Texas

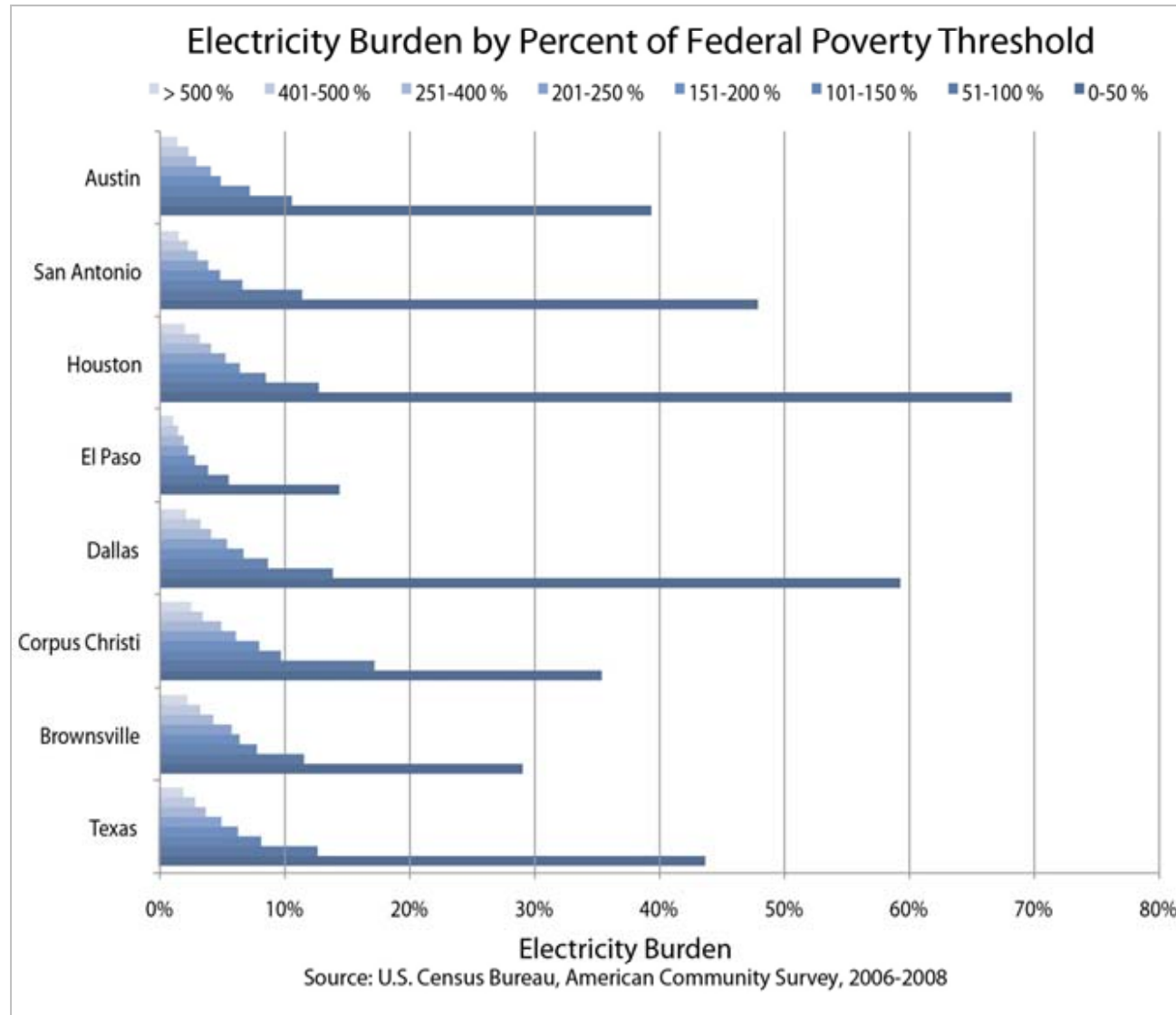
Measure	Austin		Texas	
Total Households	381,300		8,258,100	
Households by Percent of Poverty	Num (000s)	Pct of Total	Num (000s)	Pct of Total
0-50 %	21.1	5.5%	444.5	5.4%
51-100 %	25.3	6.6%	739.2	9.0%
101-150 %	27.7	7.3%	838.1	10.1%
151-200%	28.8	7.6%	771.1	9.3%
201-250%	29.6	7.8%	725.3	8.8%
251-400%	80.2	21.0%	1,730.4	21.0%
401-500%	40.0	10.5%	833.8	10.1%
> 500 %	128.7	33.8%	2,175.8	26.3%
Median Monthly Household Income	\$4,583		\$4,223	
Median Monthly Electric Bill	\$125		\$160	
Electricity Burden (%)	2.72		3.79	

Source: RW Beck Residential Benchmark Study, 2010

NOTE: Electric rates will vary for different consumption levels.



# Benchmarking - Electricity Burden by U.S. Poverty Level



## Electricity Burden % of Monthly Household Income

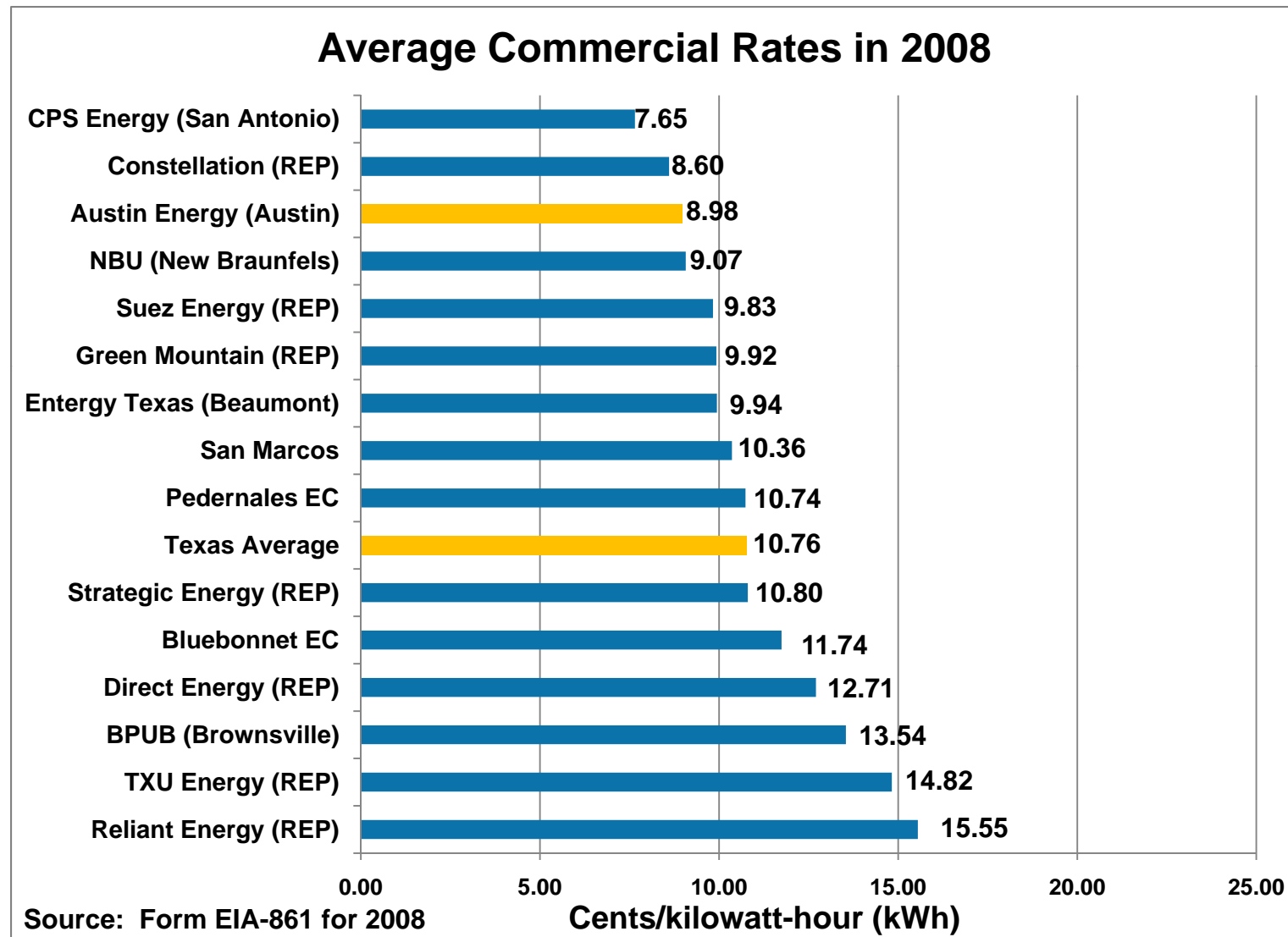
- Austin 2.72%
- Texas 3.79%

## Median Monthly Electric Bill

- Austin \$125
- Texas \$160

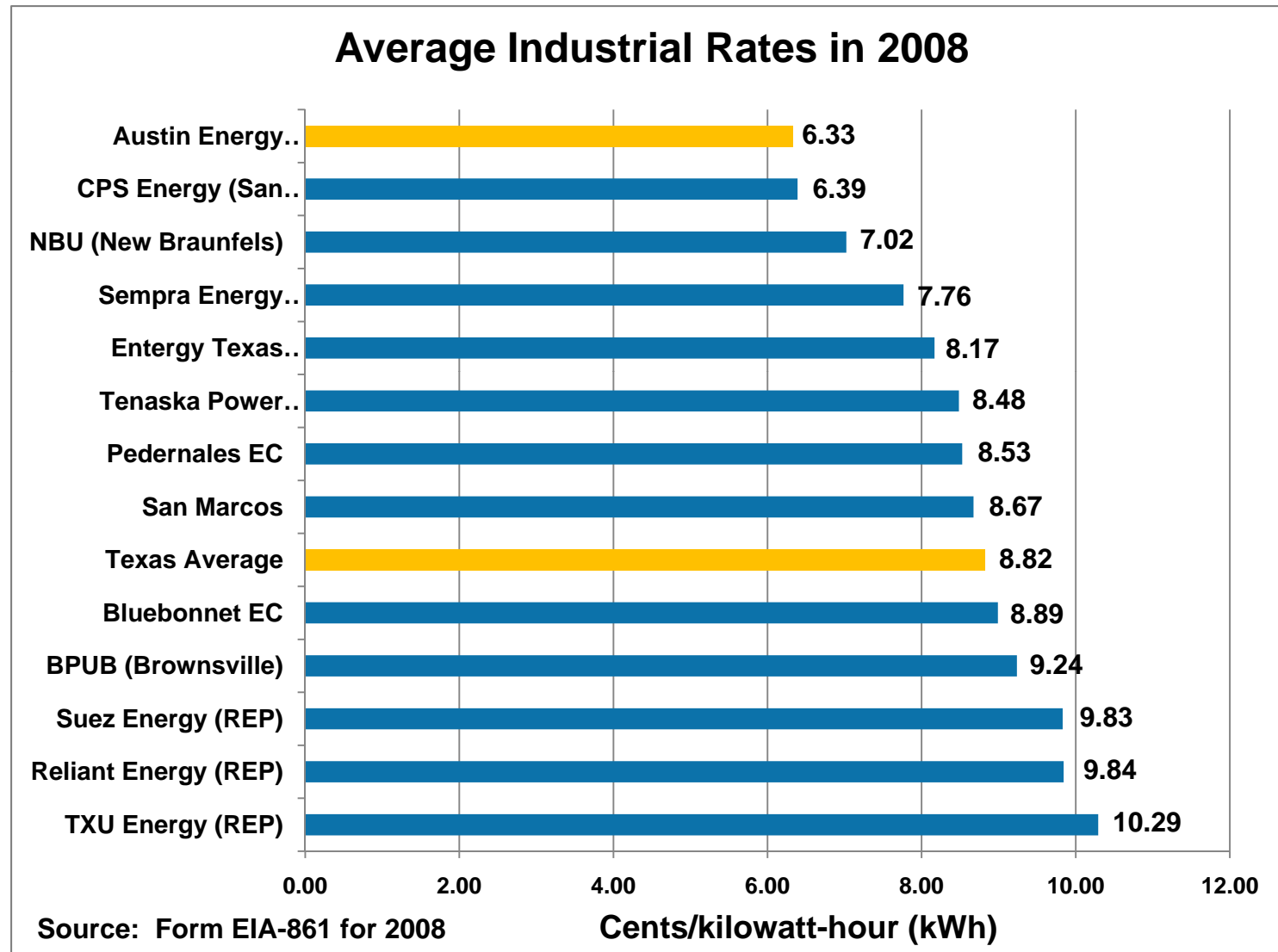


# Benchmarking – Commercial Rates

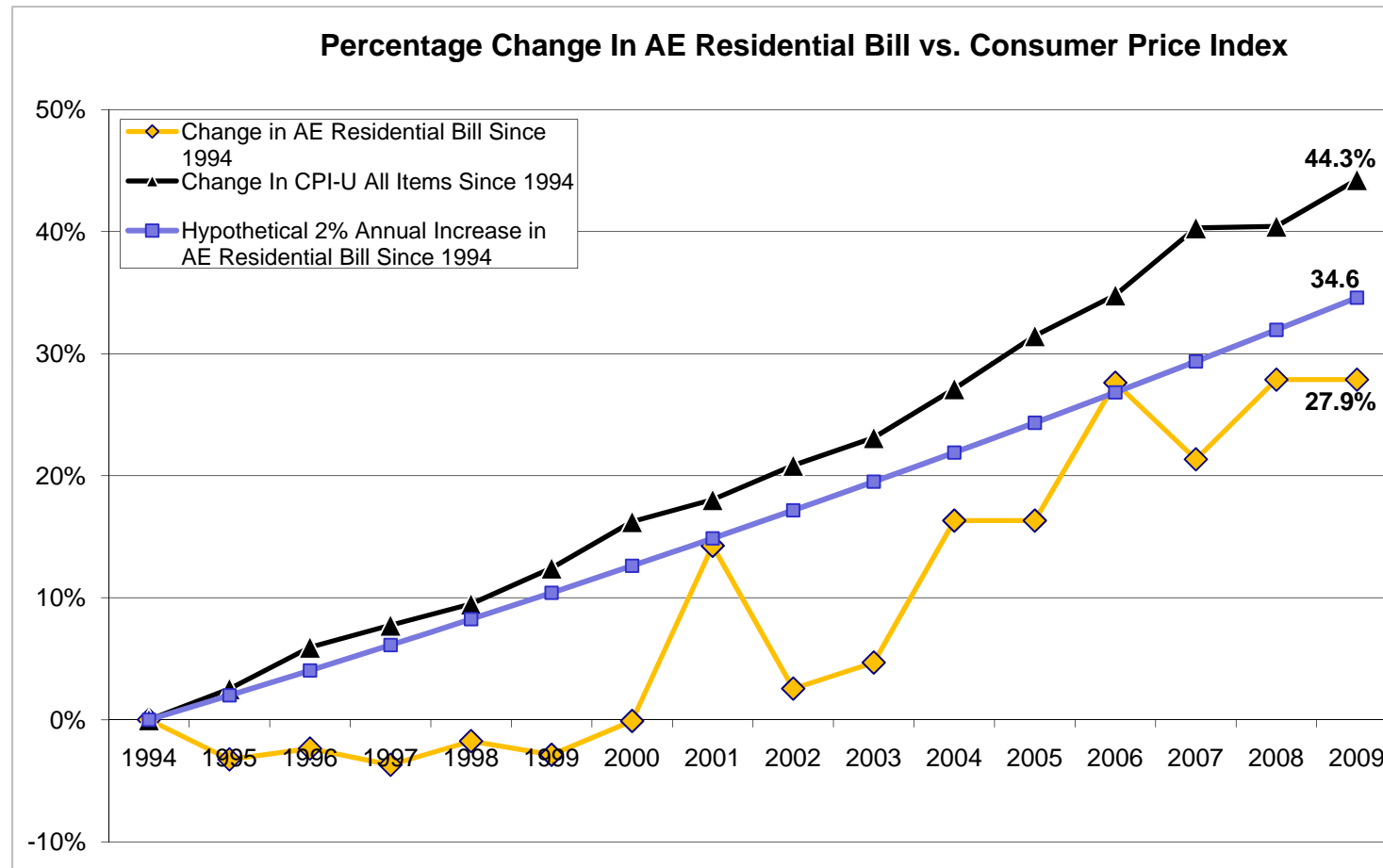




# Benchmarking - Industrial Rates



# Benchmarking – AE Historic Bills vs. Inflation



**AE bills historically lower than inflation and 2% hypothetical annual increase.**



# Benchmarking Conclusions

- **Benchmarking tool proposed for annual use**
- **Comparisons of Austin Energy customer costs for electricity to other Texas utilities and retail electric providers (REP)**
  - **By customer class (residential, commercial, industrial)**
- **Benchmarking to be updated annually and reported to City Council with 5 Year Financial Forecast each Spring**
- **Recommend future benchmarking reports be prepared by AE staff using the most current information available**





# Implementing an Affordable Generation Plan

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# Implementing an Affordable Generation Plan

## Generation plan

- AE's response to City's 2007 climate protection plan
- April 22, 2010 approved by City Council
- Goal - 35% of annual power supply from renewable energy by 2020
- Plan is flexible and dynamic, and emphasizes affordability as a fundamental element
- Dependent on City Council's approval of method to measure the plan's affordability to customers by December 31, 2010

## Affordability Forecast

- A tool to measure Generation Plan's affordability
- Present for Council adoption in December 2010
- Update annually and reported to City Council with 5 Year Financial Forecast each Spring



# Generation Resource Plan (in Megawatts – MW)

Year	Coal & Nuclear	Gas	Biomass	Wind	Solar	Total	Renewable Portfolio
2009	1,029	1,444	12	439	1	2,925	10%
2010		100			30	130	10%
2011				(77)* / 200		123	15%
2012			100			100	17%
2013				150		150	25%
2014					30	30	25%
2015		200		100		300	28%
2016			50		20	70	30%
2017				(126)* / 200	30	104	33%
2018					20	20	32%
2019					30	30	32%
2020				115	40	155	35%
<b>TOTAL</b>	<b>1,029</b>	<b>1,744</b>	<b>162</b>	<b>1,001</b>	<b>201</b>	<b>4,137</b>	

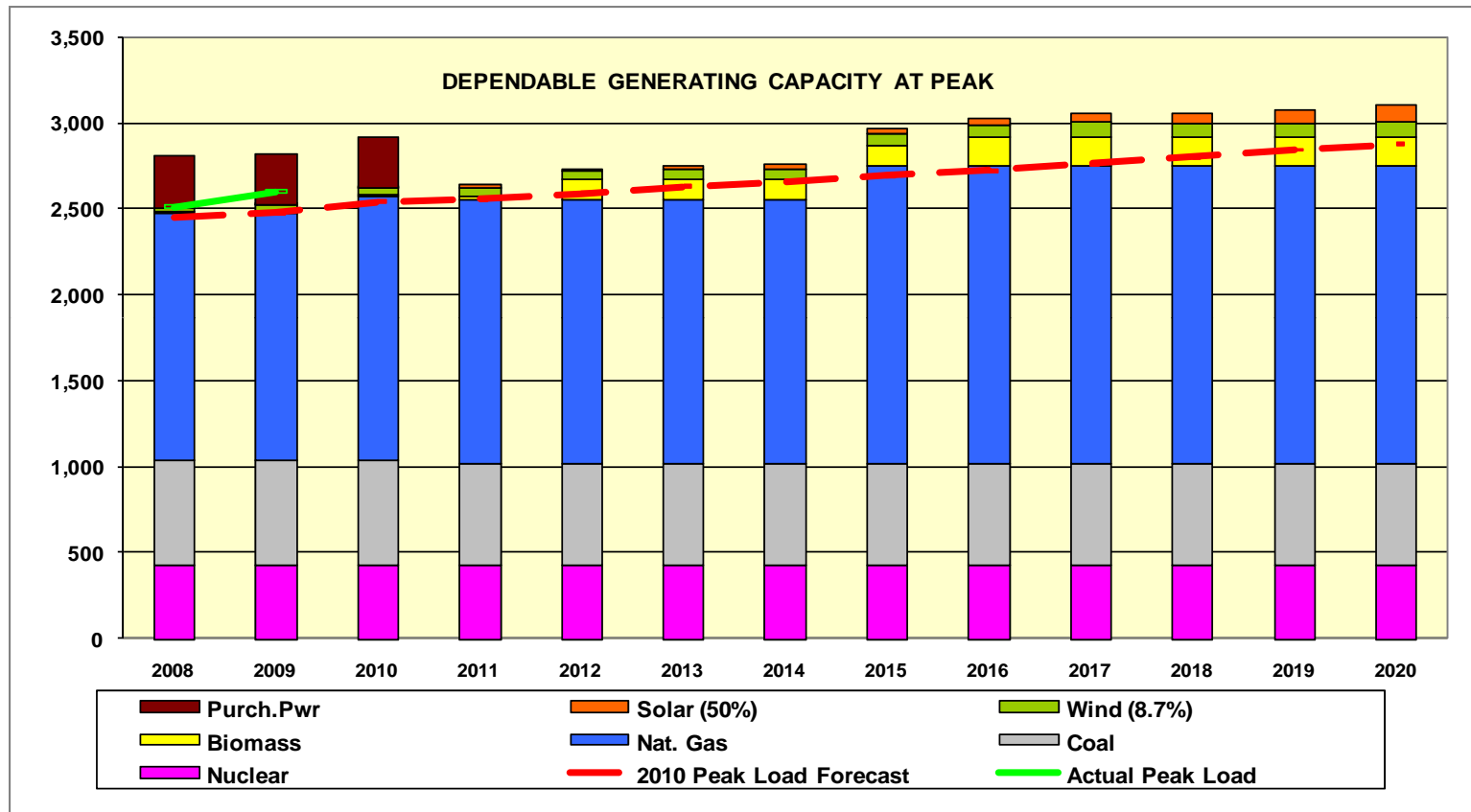
\* Wind contracts expire.

Diverse, competitive and sufficient supply to meet service area demand.



# Generation Resources & 2010 Load Forecast

(net of Energy Efficiency Goals)

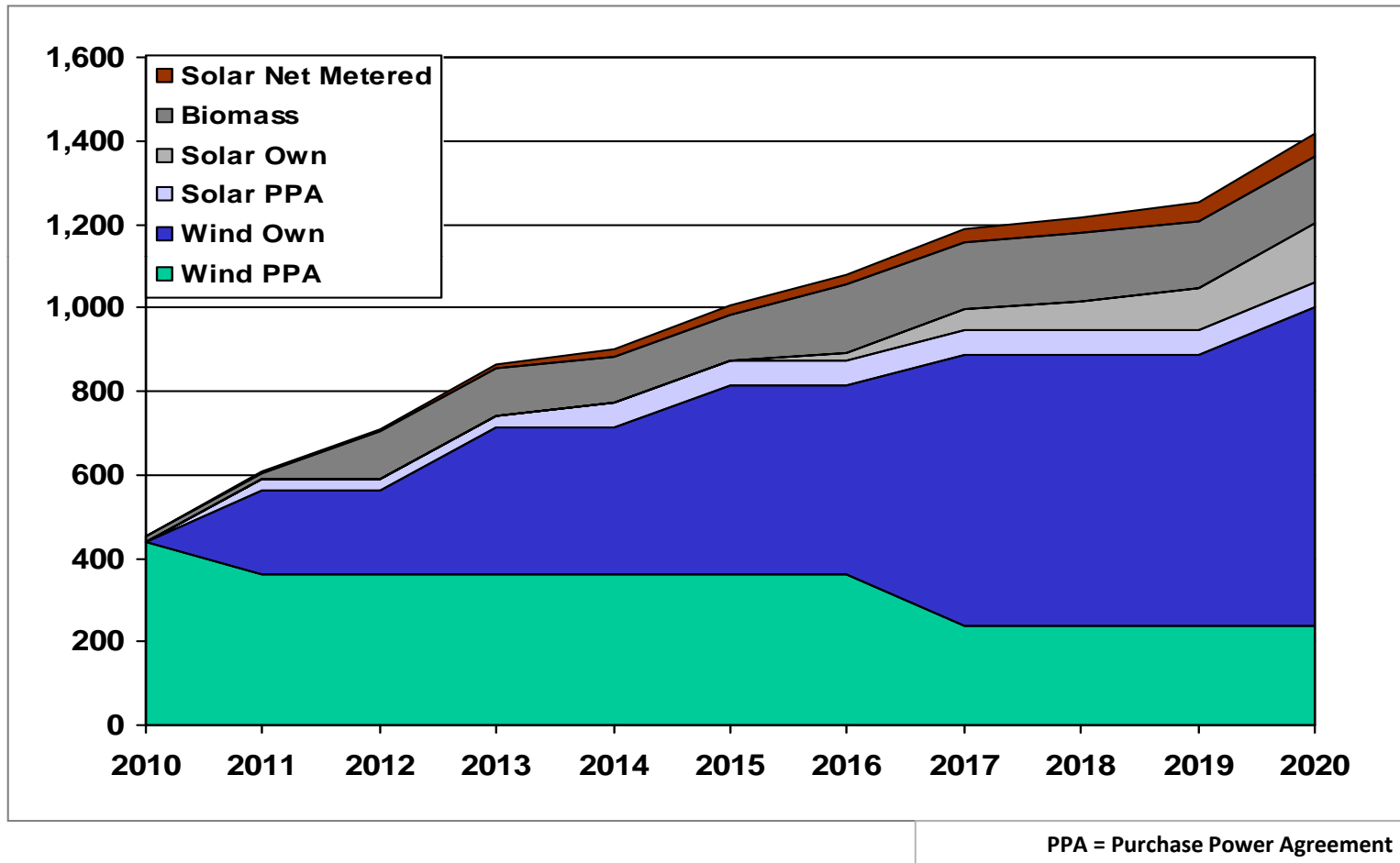


Diverse, competitive and sufficient supply to meet service area demand.



# Renewable Capacity Additions 2020 (MWs)

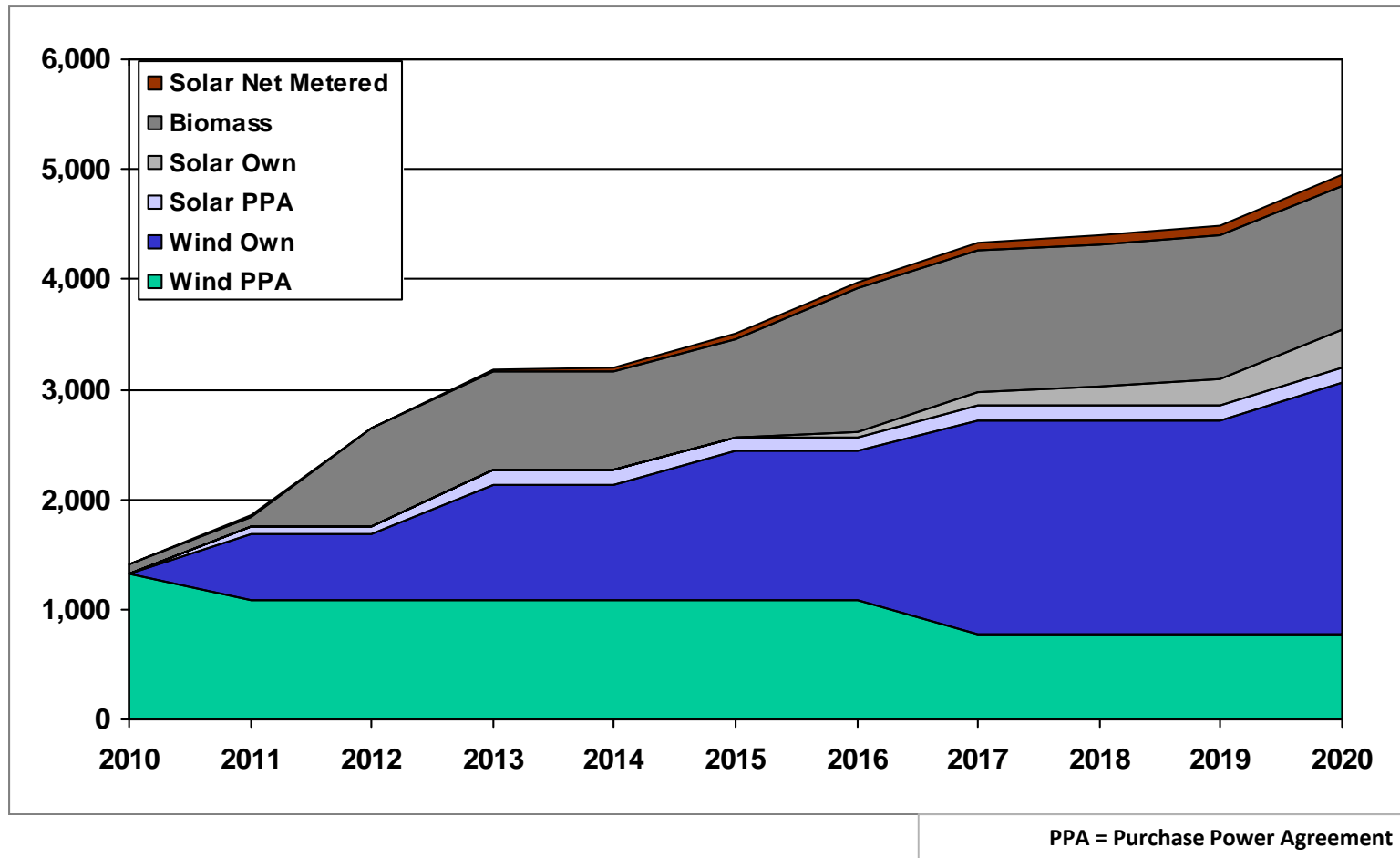
## 35% Total Energy



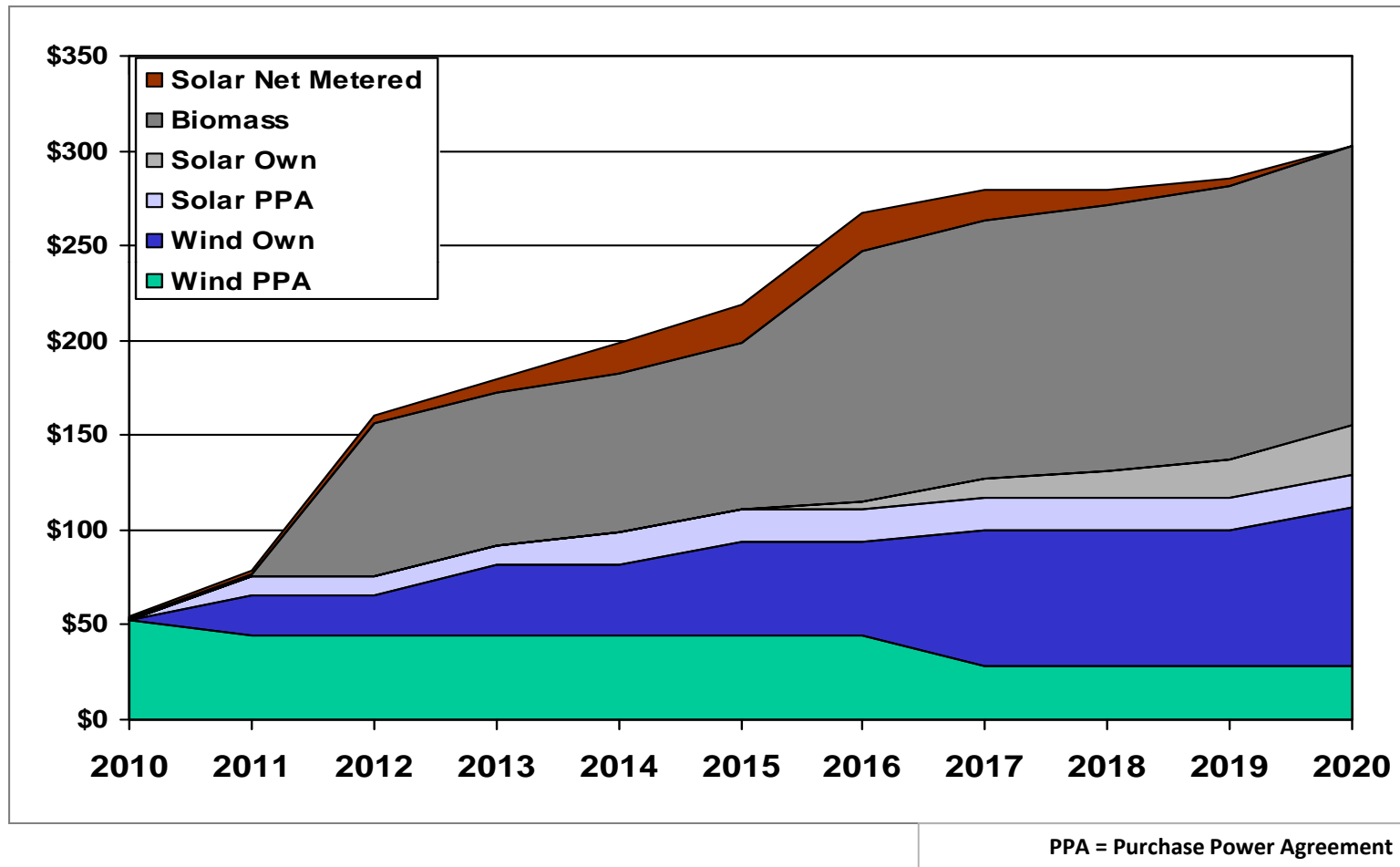


# Renewable Additions 2020 (GWhs)

## 35% Total Energy



# Renewable Additions 2020 (GWhs) Annual Expenditures (\$ in Millions)



# National Trends to Watch

- **Federal Legislation regulating CO<sub>2</sub> and a Renewable Portfolio Standard are not likely in the next Congress**
- **Greenhouse gas (GHG) is regulated by U.S. Environmental Protection Agency (EPA) under the Clean Air Act**
- **Growth in renewable investments has continued during the economic downturn, however, regulatory bodies are beginning to challenge the cost of renewable energy for rate payers**
- **Natural gas is at record low prices on the spot market due to reduced demand and new discoveries of shale gas**



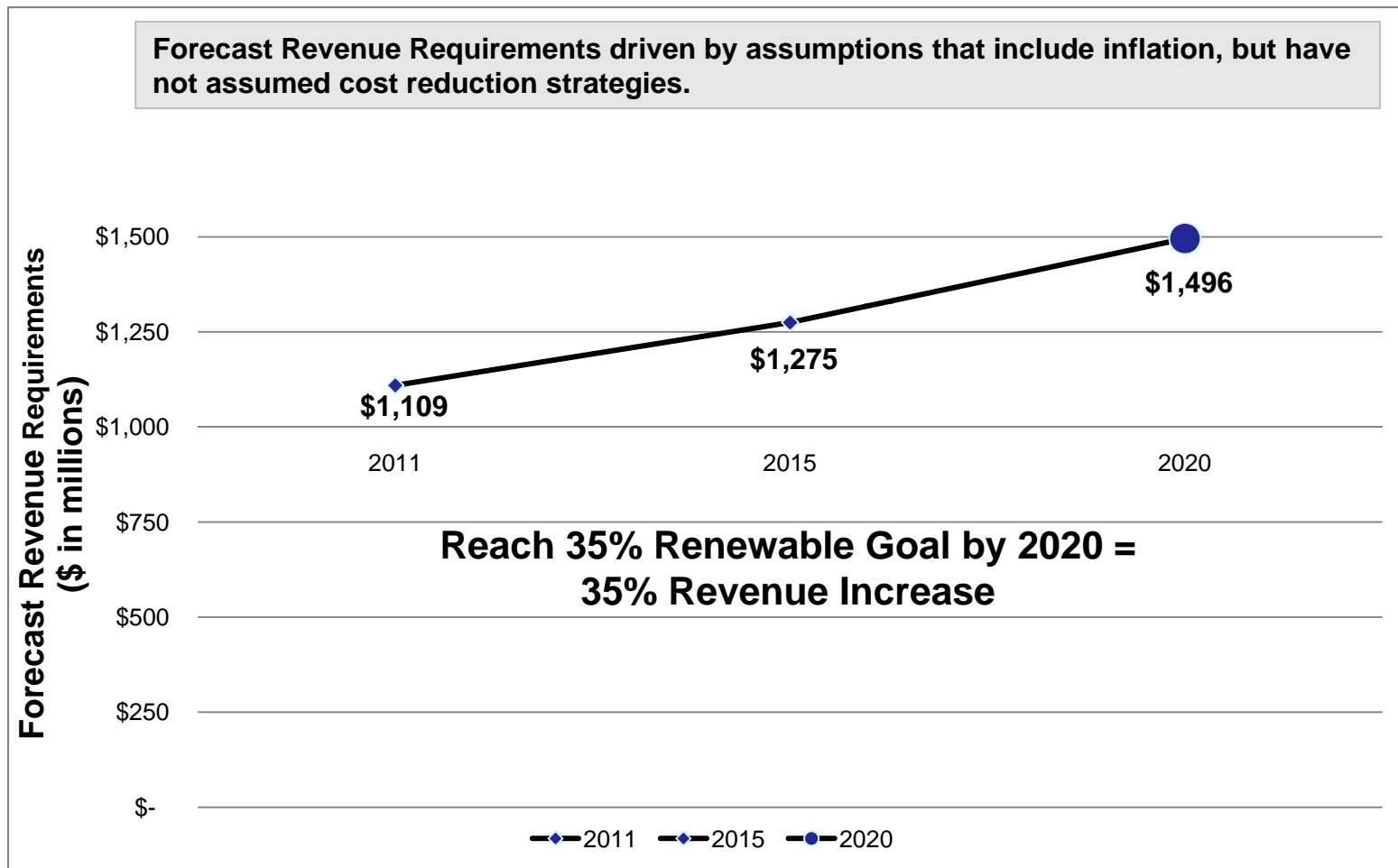
# Forecasting the Generation Plan's Affordability

- Tool to be updated annually and reported to City Council with 5 Year Financial Forecast each Spring along with rate benchmarking
- Early years of forecast are more firm data with latter years more dependent upon assumptions that will likely change
- Emphasis is on predictability and low volatility
- Revenue requirements driven by forecast assumptions
  - Inflation in forecast
  - Renewed emphasis on cost reduction strategies for utility operations and capital spending plans.
  - Rate review will reset revenue requirements



# Generation Plan Implementation

## *Affordability Template*



Rate increase coupled with cost reductions will be required to close the gap and improve the plan's affordability. Cost reductions alone will not be sufficient.



# Benefits of Implementing Generation Plan for Consumers and the Utility

- **Generation Plan Goals - lower CO<sub>2</sub> emissions, increase renewable energy & energy efficiency**
- **Rate design will incentivize energy efficiency**
- **Consumer benefits**
  - Energy efficiency improvements lower usage & bills
  - Cleaner environment
- **Utility benefits**
  - Lower long-term CO<sub>2</sub> emissions costs
  - Increased energy efficiency reduces utility load and revenue, but delays costly additions of power supply
  - Affordable and competitive rates/bills maintained with careful timing of renewable additions
  - Position utility for the long-term



# Summary

- **Benchmarking**
  - **Austin Energy's rates are competitive in Texas for residential, commercial and industrial customers**
- **Affordability Forecast**
  - **Generation plan goal - 35% of annual power supply from renewable energy by 2020**
  - **Tool to forecast affordability of generation plan**
- **Annual updates with 5 Year Financial Forecast**



# Council Communication Timeline

- **January 2011**
  - Report to Council on rate design progress and Public Involvement Committee
  - Master schedule for rate review
- **April 2011**
  - Update Council in a work session on benchmarking, generation plan financial forecast and AE general financial performance and 5 year financial forecast
- **July 2011**
  - Report to Council on rate design progress
- **October 2011**
  - Council work session on operational performance and other strategic issues





# Questions

