

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

Rate Design
City Council Work Session # 7
April 23, 2012

#### **Overview**

- Rate Design Principles
- Proposed Rate Design
- Cost Structure and Revenue Stability
- Fixed Charges and Alternatives
- Inverted Block Structure
- Bundled Plan for Low-Use Customers
- Fuel Charge (Components and Calculations)



## **AE's Rate Design Principles**

#### **Austin Energy's Strategic Direction**



#### What is Unique About AE's Rate Design Philosophy?

- AE is driven by strategic objectives that have evolved since 1994
- Energy efficiency and conservation
- Affordable and competitive
- Providing community value/benefits
- Balancing multiple objectives



#### **AE's Current Rate Structure**

## Components of an Austin Energy Electric Bill

- Customer Charge
  - Residential and small commercial
- Energy Charge
  - Residential two-tier block
  - 6 Month seasonality
- Demand Charge
  - Commercial customers > 20 kW monthly
  - 6 Month seasonality
- Fuel Charge or GreenChoice® Option
- Transmission Service Adjustment Fee (TSAR)



## **Proposed Changes to Rate Design**

- Customer Charge:
  - Extend to all customer classes
  - Raise fixed charges to improve fixed cost recovery
- Electric Delivery Charge:
  - Collect a portion of electric delivery (distribution) costs as a fixed charge for Residential and as a demand charge for Commercial above 10kW
- Energy Charge:
  - Expand Residential to 5 tiers from 2 tiers
  - Adjust seasonality to 4 peak months from 6
- Demand Charge:
  - Expand to all customers above 10 kW per month from 20 kW
  - Adjust seasonality to 4 peak months from 6
- Unbundled Charges:
  - Provide greater transparency
  - Dedicated funding

## **Residential Rate Recommendations - Preliminary**

Residential Bill Components	Existing Rate	Cost of Service	Proposed 12-19-2011	Proposed Phase 1
Customer Charge (\$/month)	\$6.00	\$19.70	\$12.00	\$12.00
Electric Delivery (\$/month)	Inc. Below	\$14.42	\$10.00	\$10.00
Energy Charge (¢/kWh) – Summer Period (June-Sept)				
< 200 kWh (6% of bills)	3.55 ¢	4.172 ¢	2.8 ¢	0 ¢
201 - 500 kWh (14% of bills)	3.55 ¢		2.8 ¢	2.0 ¢
501 – 1000 kWh (30% of bills)	7.82 ¢		6.0 ¢	5.2 ¢
1001 - 1500 kWh (23% of bills)	7.82 ¢		8.3 ¢	7.6 ¢
1501 – 2500 kWh <i>(20% of bills)</i>	7.82 ¢		9.4 ¢	8.3 ¢
> 2500 kWh (7% of bills)	7.82 ¢		10.6 ¢	9.2 ¢
Energy Charge (¢/kWh) – Non-Summer Period (Oct-May)				
< 200 kWh (11% of bills)	3.55 ¢	3.618 ¢	1.7 ¢	0 ¢
201 - 500 kWh (32% of bills)	3.55 ¢		1.7 ¢	1.7 ¢
501 – 1000 kWh (36% of bills)	6.02 ¢		4.4 ¢	3.7 ¢
1001 - 1500 kWh (12% of bills)	6.02 ¢		6.1¢	5.4 ¢
1501 – 2500 kWh (6% of bills)	6.02 ¢		7.1 ¢	6.1 ¢
> 2500 kWh (2% of bills)	6.02 ¢		8.2 ¢	7.1 ¢
Fuel Adjustment (¢/kWh)	TBD	TBD	TBD	TBD
Community Benefit Charges (¢/kWh)				
Customer Assistance Program (\$/mo)	Inc. Above	\$1.00	\$1.00	\$1.00
Service Area Street Lighting (¢/kWh)	Inc. Above	0.113 ¢	0.113 ¢	0.107 ¢
Energy Efficiency Programs (¢/kWh)	Inc. Above	0.294 ¢	0.294 ¢	0.293 ¢
Regulatory Charge (¢/kWh)	TSAR <b>0.144</b> ¢	0.732 ¢	0.732 ¢	0.728 ¢
Percent Class Base Rate Change		21.4%	20.1%	13.3%

Total Minimum bill = \$22.00

- •First 200 kWh included in \$12.00 Customer Charge.
- •Electric Delivery Charge \$10.00

<sup>\*</sup> Estimated Class Percent Increase



## **Commercial Customer Classes - Rate Mitigation**

#### **Small Worship & Small Commercial (Non-Demand Rate):**

- Secondary Voltage < 10 KW Class</li>
  - Remove Demand Charge
  - Remove Electric Delivery Charge
    - Benefits:
      - Small Worship
      - School Portables
      - Small Retail Businesses
- Rate structure similar to current
- Does not shift cost to other classes

#### 10% Discounts to Schools

#### **Other Commercial (Demand Rates)**

3 Year Transition Rates for current non-demand customers



# **Cost Structure and Revenue Stability**



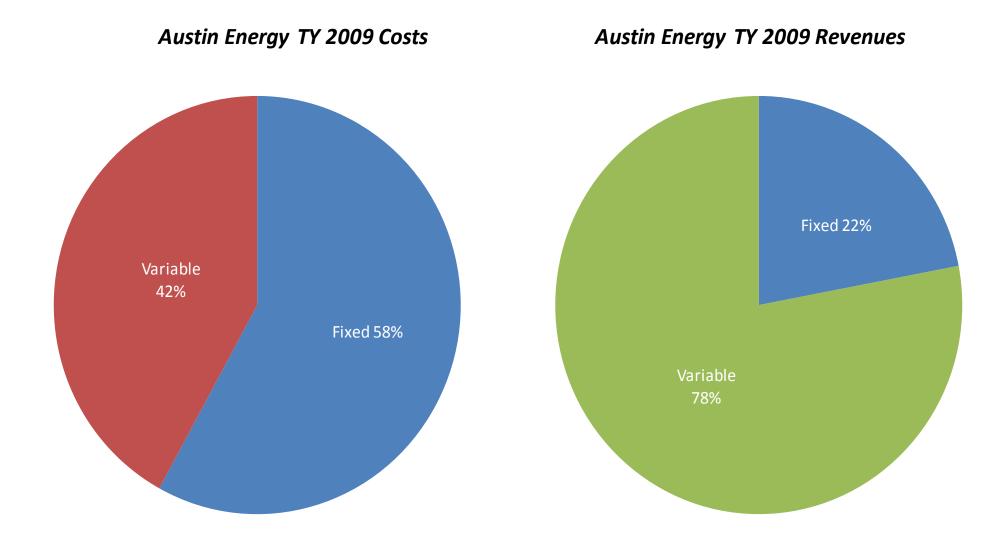
## **Austin Energy's Cost Structure**

#### Fixed versus Variable Costs

- Fixed Costs: costs incurred regardless of sales volume
  - Non-fuel Operations and Maintenance Costs
  - Debt
  - Capital Expenditures
  - General Fund Transfer
- Variable Costs: costs that vary directly with sales
  - Primarily Fuel



## **Austin Energy's Cost Structure**



#### Fixed Cost Recovery Issue – Current Residential Design

- Currently recover only \$6 (customer charge) in fixed costs through fixed charge on bill
- Electric Delivery (Distribution) & Customer Service Functions
  - Preliminary cost of service results show \$34/month in fixed costs for average residential customer
    - Customer Related (Partially Recovered Through Customer Charge): \$20
    - Distribution Related (Recovered Through Energy Charge): \$14
- Production and Transmission Functions
  - Preliminary cost of service results show \$24/month in fixed costs for average residential customer
- Total cost of service results show \$58/month in fixed costs for average residential customer

#### Challenges to Long-run Revenue Stability (from Nov. 4, 2009)

- Energy Efficiency Objectives:
  - Encourage customers not to buy electricity
  - Building Code: promote zero energy capable homes
  - Recommendations of Resource Generation and Climate Protection
     Plan to 2020
- Distributed Generation:
  - 200 MW solar capacity by 2020
  - Success at promoting DG
  - Pecan Street Project
- Smart Grid: promote greater control over own energy use



#### Recommendations for Long-run Revenue Stability (from Nov. 4, 2009)

- Change in rate structures:
  - Unbundled rates
  - New rate design options
  - Mix of volumetric & fixed or service based rates to ensure cost recovery
  - Menu of rates



## **Fixed Charges and Alternatives**

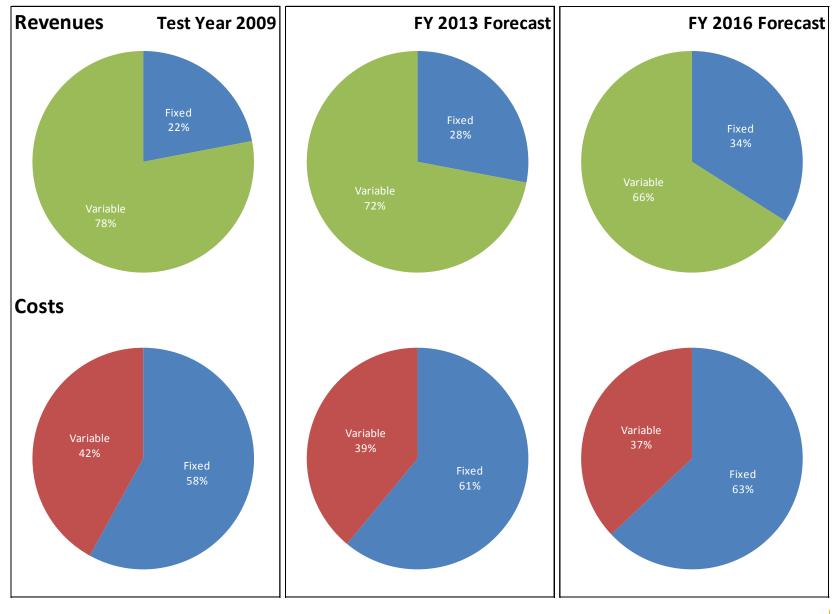


## **Alternatives to Enhance Revenue Stability**

- Establish and raise fixed charges:
  - Customer Charge
  - Electric Delivery Charge
- Cost Separation (Unbundling)
  - Separate costs into underlying components
  - Create dedicated funding for specific programs
  - Establish adjustment mechanisms where appropriate (e.g., regulatory charge)
- Decoupling
- More frequent rate review



## **Gradual Improvements to Fixed Cost Recovery**



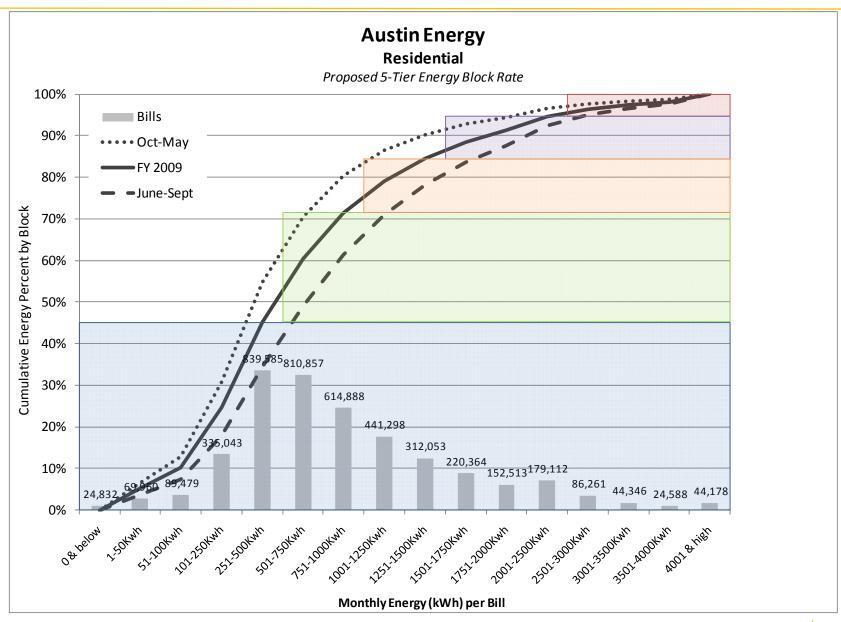
# Rate Components Promoting Energy Efficiency



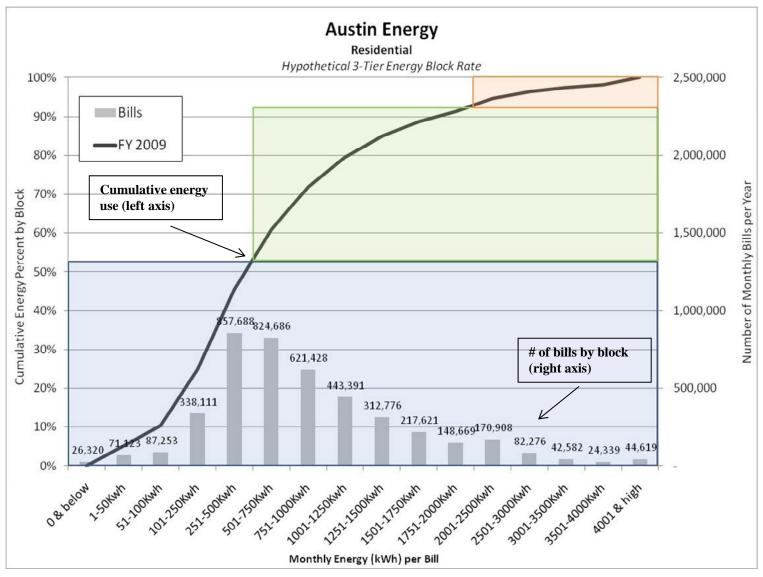
## **Proposed Change in Seasonal Period**

- Current Summer Season: May October
- New Summer Season: June September
- Benefits
  - Better reflects observed seasonal system peaks
  - Sends stronger efficiency pricing signal
  - Aligns with other Texas utilities
  - Aligns with cost of service

#### **Tiered Residential Rate Structure: 5 Blocks**



#### **Tiered Residential Rate Structure: 3 Blocks**



Note: Average monthly residential (E01) electricity usage was 943 kWh in FY 2009.



## **Bundled Plan for Low-Use Customers**



#### **Bundled Plan for Low-Use Residential Customers**

- Total Minimum bill = \$22.00
  - First 200 kWh included in \$12.00 Customer Charge
  - Electric Delivery Charge \$10.00

# **Fuel Adjustment**



## **Current Fuel Adjustment Charge**

#### **Background**

- Established by Council approved tariff
- Designed to recover actual costs
- Typically effective each January for one year
- Subject to adjustment up or down if 10% over or under collected

#### Components

- Nuclear
- Coal
- Natural Gas
- Purchased Power
- Renewable Energy not sold through GreenChoice
- ERCOT Fees and charges
- Prior Period Adjustments

## **Proposed Fuel Adjustment**

- Net ERCOT Settlement Costs
  - Revenues:
    - Generation revenues
    - Ancillary services revenues
    - Congestion revenues
  - Costs
    - ERCOT load zone expenses
    - Congestion expenses
- Direct fuel costs
- Ancillary services costs
- Less net revenues from third party sales

ERCOT Administrative Fees recovered through the Regulatory Charge.

## **Questions**

