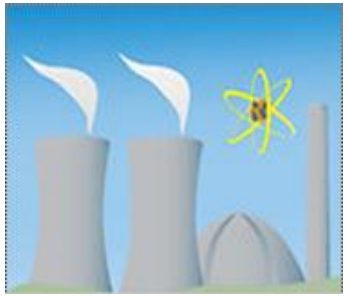
Energy Risk Management Program

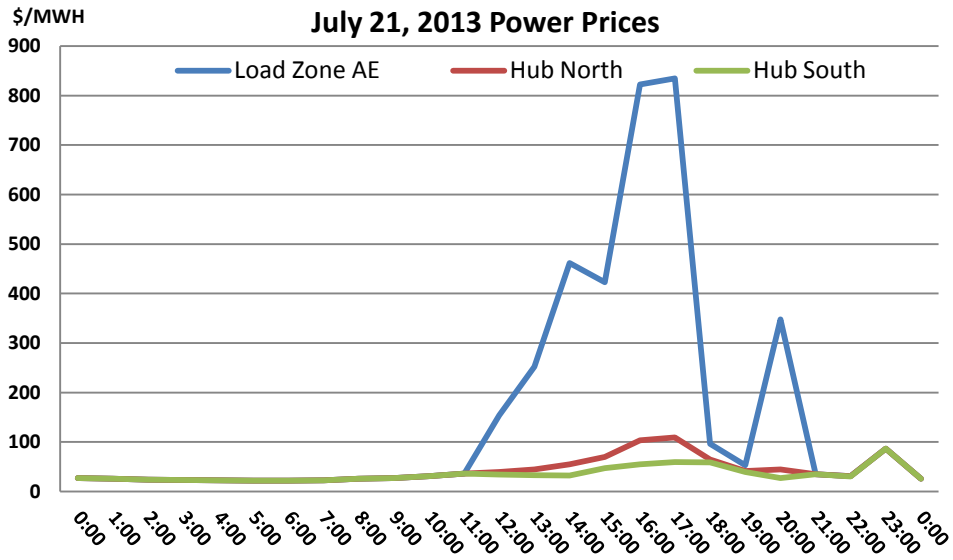


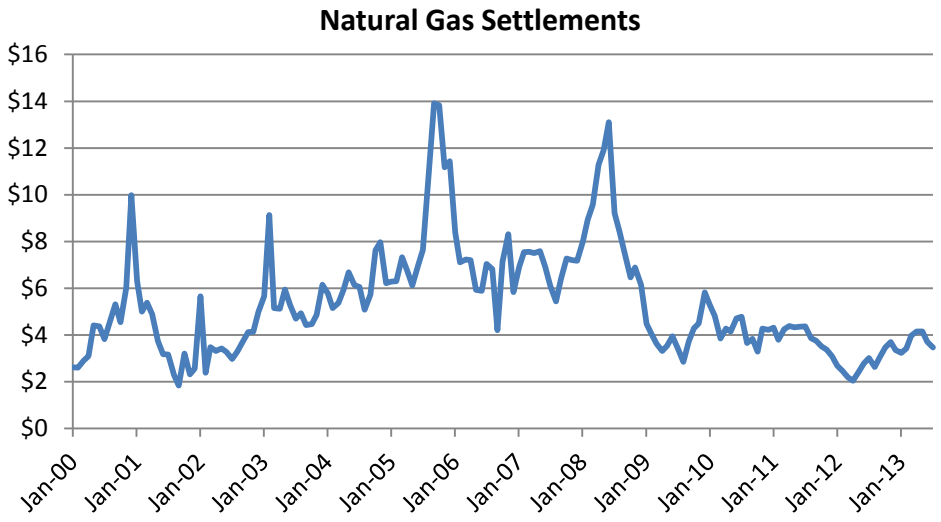
Electric Utility Commmission
December 16, 2013

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

The Need for Risk Management

- Energy Markets are volatile
  - Power prices can change dramatically over the course of hours
  - Natural Gas has ranged from $2 to $14 over the last decade
- Hedging increases predictability and creates stability
- Risk Management is a requirement for high credit ratings
- ERCOT Protocols require comprehensive risk management
- Represents planned active approach to cost management versus passive approach





Managing Risk through Hedges

Hedges are insurance against uncertain financial outcomes and take many forms:

- Physical supply contracts for fuel or power with fixed or bounded pricing
  - Wind, Solar, Market Purchases, Coal, Nuclear
- Physical assets with fixed or known costs
  - Power Plants
- Physical transportation contracts to secure space on pipelines or rail roads
  - Natural Gas / Coal
- Financial Contracts for fuel or power with fixed or bounded pricing
  - Futures, Options, Collars, outage or property / casualty insurance

Austin Energy's Policy for Energy Risk Management

Approved by Council May 22, 2003

Stated Objectives

- Competitive rates and services
- Maintain AE's financial strength
- Reduce costs when possible by optimizing energy procurement through integrated assessment of resources, requirements and transactions
- Protecting and enhancing value of generation assets

Structure

- Provided for the use of financial contracts (futures/options)
- Established future obligation period (i.e. hedge horizon)
- Established a dollar limit on obligations within the future period
- Covers all power, fuel and emission related assets
- Speculation prohibited

<u>Aimed at Stability</u>

Highly Defined Governance Structure

- Risk Oversight Committee (ROC)
  - Executive Direction & Oversight
  - Comprised of AE & COA senior management members
  - Meets monthly
  - Receives daily reports from Risk Control
- Risk Control
  - Independent Oversight Function
  - Reports to AE's Chief Risk Officer (CFO)
- Energy & Market Operations
  - Strategy & Execution

Program Timeline

- Electric deregulation (Senate Bill 7) in 1999 authorizes MOU's to use financial instruments

- Pilot Program
  - August 2003 – May 2004
  - 3 year hedge horizon
  - Authority for up to 15% of portfolio ($25M)

- Expanded Coverage Program
  - Approved June 2004
  - 5 year hedge horizon
  - Authority up to 30% of portfolio ($500M)

- Current Portfolio Program
  - Approved October 2005
  - 5 year hedge horizon
  - Authority up to 60% of portfolio ($800M)

Changing Market Risks

2003 – 2010

- Zonal Power Market – AE plants dispatched to meet AE demand
- Emphasis on Fuel cost – primarily Natural gas price risk

2011 – Current

- Nodal Power Market – AE plants dispatched to ERCOT demand
- Emphasis moves to delivered power costs - Load cost, Generation cost and revenue
- Lower natural gas prices – though volatility remains a factor
  - From 2012 to 2013 Natural gas prices increased 33% from ~ $3/MMBtu to ~$4/MMBtu

Adapting to Market Changes

- Natural gas prices are lower but still volatile

- Nodal market – AE buys all of its load and sells all of its generation = AE doesn't generate to its load
  - This means less direct gas risk but increasing risk from buying power

- As a result – risk has shifted from primarily managing fuel (gas) price risk to managing power price risk
  - We have been adapting our approaches accordingly

Hedge Mechanics

- Hedge Example:
  - Buy power now for 2017 at $60 MWh
  - In 2017, spot market will be higher or lower
  - If higher, AE benefits
  - If lower, AE has a cost (premium)
  - End result – bought power at $60 MWh

- Cost / Benefit is the difference between the price contracted for in advance (the hedge) and the spot market price at time of settlement

- Like insurance – certainty comes with some cost (premium)

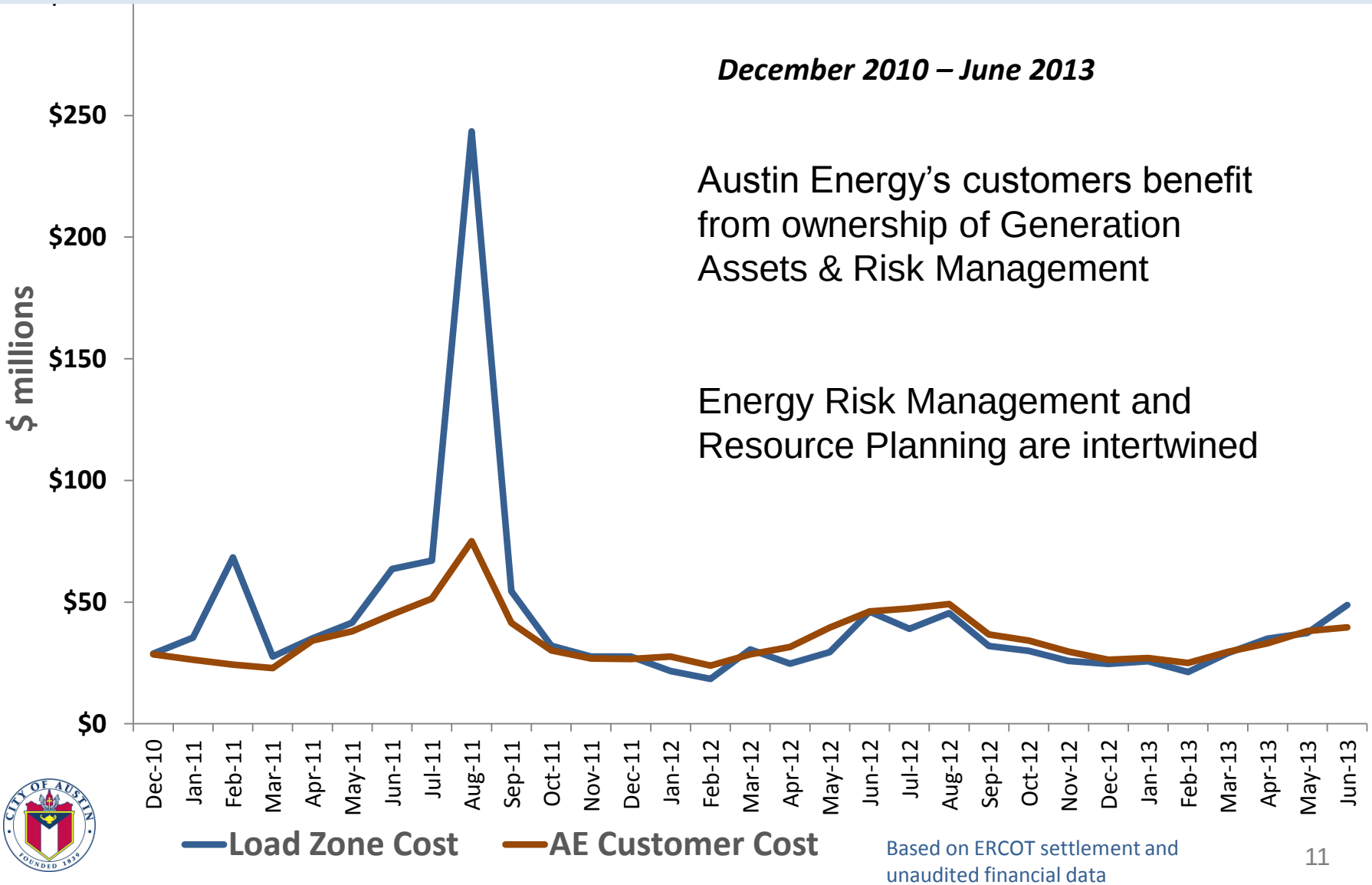
New Power Market Exposures

- High and increasing market caps present significant price risk

Market Cap MWH	$ 3,000	$ 4,500	$ 5,000	$ 7,000	$ 9,000
Cost per Hour	2011	2012	2013	2014	2015
STP (200 MW)	$ 600,000	$ 900,000	$ 1,000,000	$ 1,400,000	$ 1,800,000
FPP (300 MW)	$ 900,000	$ 1,350,000	$ 1,500,000	$ 2,100,000	$ 2,700,000
SHCC (310 MW)	$ 930,000	$ 1,395,000	$ 1,550,000	$ 2,170,000	$ 2,790,000
Decker (420 MW)	$ 1,260,000	$ 1,890,000	$ 2,100,000	$ 2,940,000	$ 3,780,000

- In August 2011, AE incurred ~$20M in additional costs due to outages during high price periods at the Cap
- ERCOT energy payments are due within a week of the date incurred
- These outcomes may be avoidable through active risk management

Customer Impact

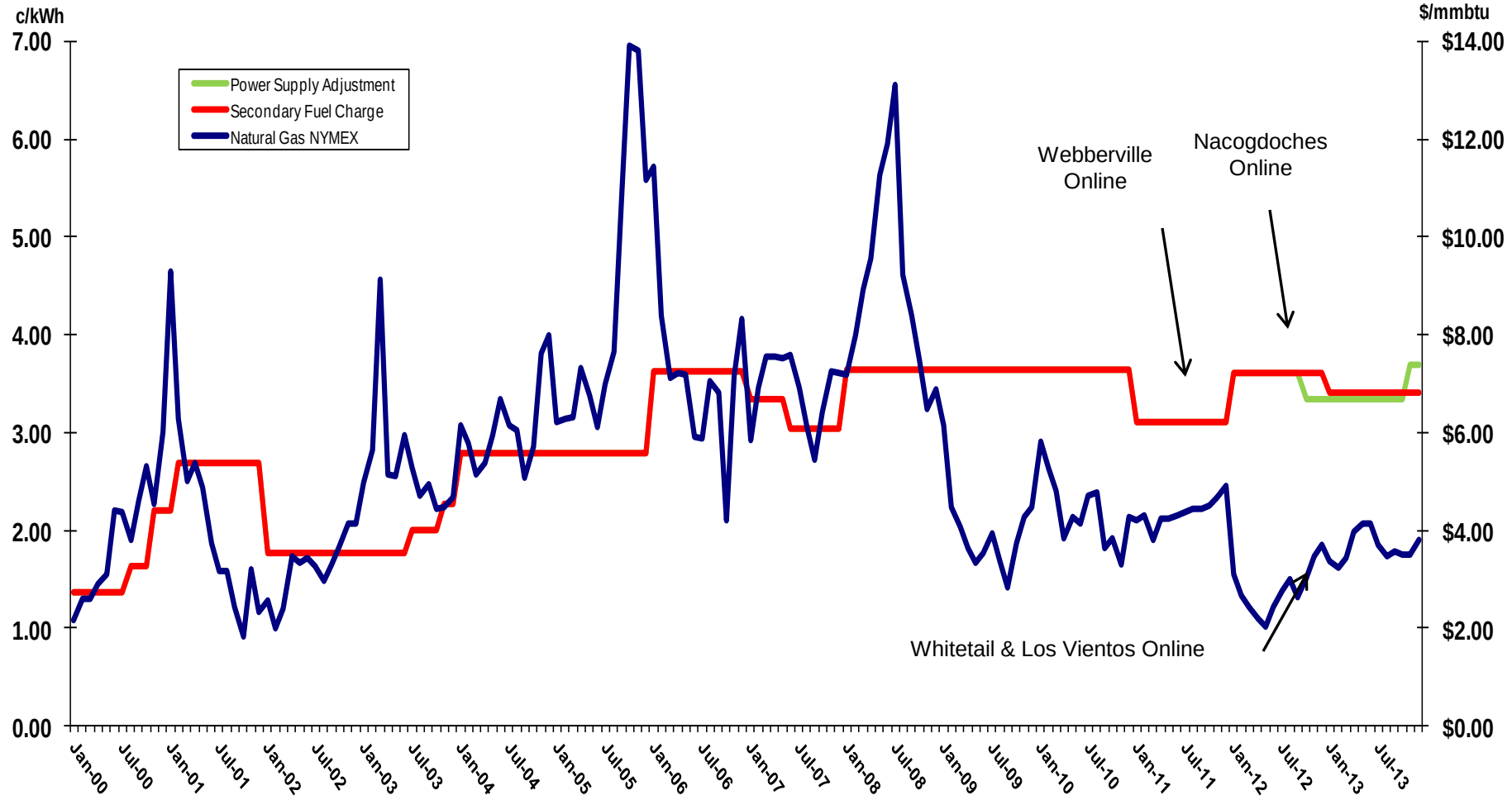


Austin Energy's customers benefit from ownership of Generation Assets & Risk Management

Energy Risk Management and Resource Planning are intertwined

Based on ERCOT settlement and unaudited financial data

Fuel Charge vs. Natural Gas Prices



Natural Gas & Renewable Supply Trends

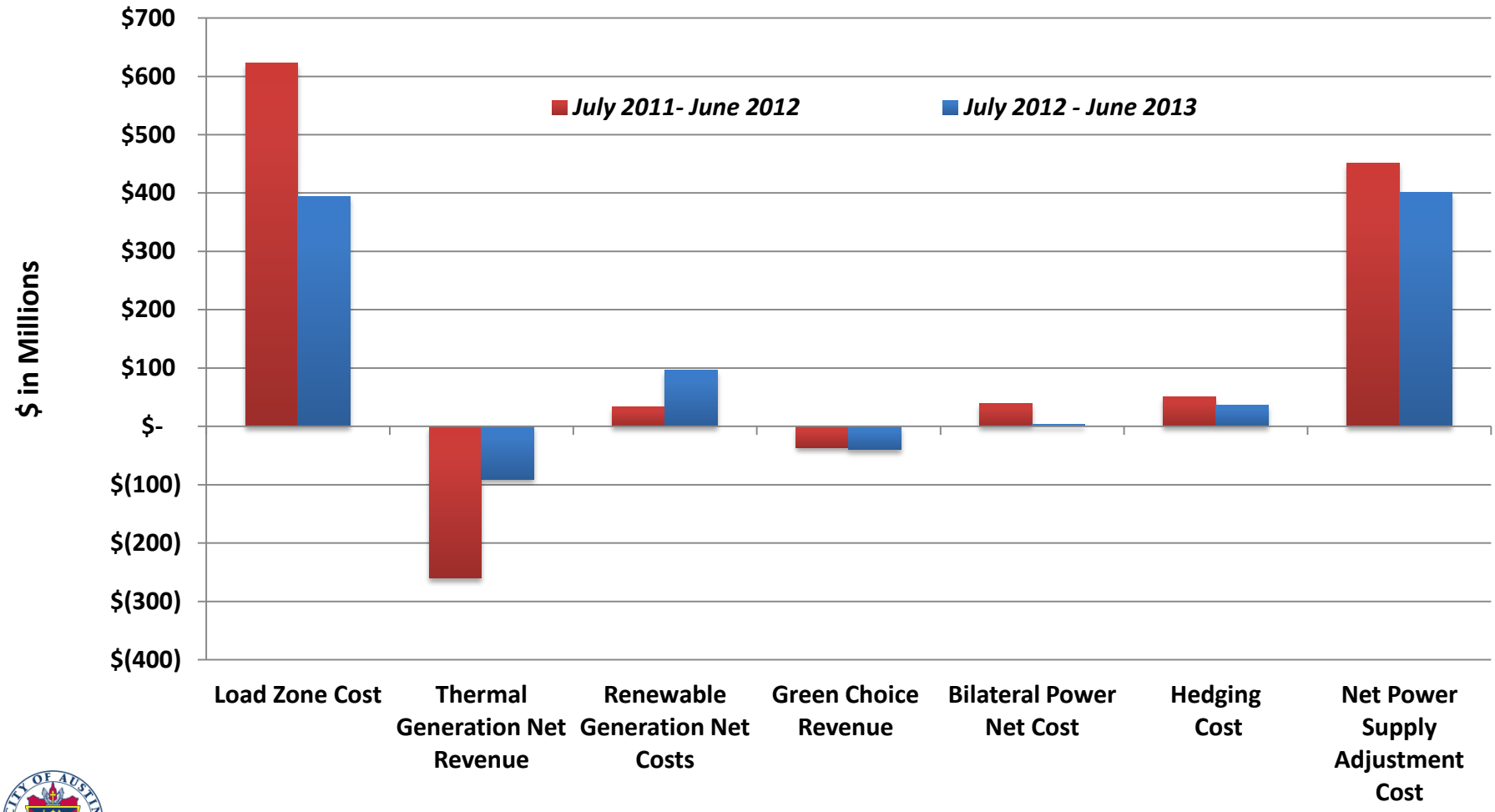
Recent declines in natural gas cost partly offset by increases in renewable supply

% Generation	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013*
Nuclear	27%	26%	25%	21%	22%	23%
Coal	33%	28%	33%	29%	27%	26%
Purchased Power	8%	9%	10%	14%	16%	15%
Natural Gas & Oil	26%	27%	22%	26%	20%	16%
Renewable Energy	6%	10%	10%	10%	15%	21%
Total	100%	100%	100%	100%	100%	100%

Fuel Cost (% by type)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013*
Nuclear	3%	4%	4%	4%	3%	4%
Coal	18%	19%	21%	19%	20%	16%
Purchased Power	19%	12%	12%	12%	3%	3%
Natural Gas & Oil	52%	49%	47%	41%	35%	25%
Renewable	6%	11%	11%	10%	23%	37%
ERCOT	2%	5%	5%	14%	16%	15%
Total	100%	100%	100%	100%	100%	100%

* FY 2013 is unaudited

Power Supply Adjustment Components



Based on ERCOT Settlement and unaudited financial data

How Do We Compare? Program Reviews

- Policy requires periodic reviews "typically every other year"
- AE reviewed more frequently in early years

Risk Review Auditor	Year Done	Executive Summary
Risk Management Inc	2004, 05, 06	*"In line with industry best practices in infrastructure and execution"*
ACES Power Marketing	2007	*"After 3 years of program operation, AE's infrastructure and staff expertise provide a sound foundation for advancing the program."*
Risk Management Inc	2008	*"Representative and in some areas ahead of industry standards in infrastructure and execution, AE program since inception of Pilot in 2002 to present year of operation has implemented continual enhancements to reach industry best practices level."*
Pace Consulting	2010	*"AE's hedging activity has effectively constrained the effects of market volatility."*
Aether Advisors	2012	*"AE's hedging program is more sophisticated than that of many utilities in terms of managing risk exposure to rising prices while also closely monitoring opportunity costs."*

2012 Review by Aether Advisors

Peer Analysis: Overall Rankings Summary

AE rated favorably in all three categories relative to peers:

4-5
Best Practice

3
Satisfactory Practice

1-2
Needs Attention / Improvement

Table 1. Policies Summary

	Austin Energy		Utility A	Utility B	Utility C	Utility D	Utility E	Utility F	Utility G	Average Utility A- G
Average Score	4.5		3.8	3.8	3.2	4.5	4.5	4.3	3.7	4.0

Table 2. Infrastructure Summary

	Austin Energy		Utility A	Utility B	Utility C	Utility D	Utility E	Utility F	Utility G	Average Utility A- G
Average Score	3.9		3.9	3.9	4.1	4.6	4.8	4.0	3.8	4.2

Table 3. Methodology Summary

	Austin Energy		Utility A	Utility B	Utility C	Utility D	Utility E	Utility F	Utility G	Average Utility A- G
Average Score	3.6		3.4	3.2	2.9	4.2	4.5	4.2	3.2	3.7

Summary

- Program is meeting objectives while adapting to market changes
- Positive performance reviews
- The need to manage cost / price risk remains strong:
  - Volatile power prices
  - Volatile fuel prices
  - Outage risk

Energy Risk Management Program

Questions?