



FY 2018 Budget Presentation

August 14, 2017

Electric Utility Commission





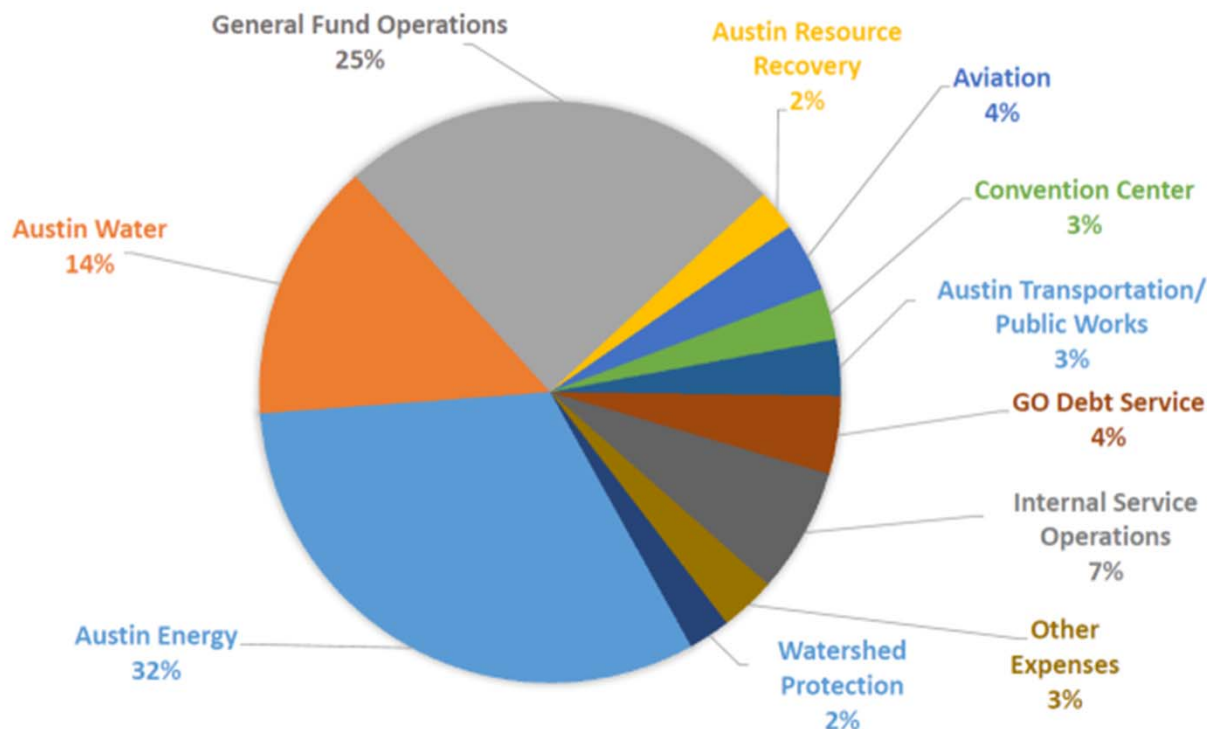
Agenda

- Budget Highlights
- Residential Bill Impact
- Financial Health
- Operations Details
- Power Supply Adjustment
- Market Observations
- Observations and Challenges
- Schedule



AE's Share of the City Budget

ALL CITY FUNDS USES OF FUNDS FY 2017-18



Austin Energy's total Expenditures Budget of \$1.34 Billion in FY 2017-18 is 32% of the City of Austin's total expenditures budget of \$3.9 Billion

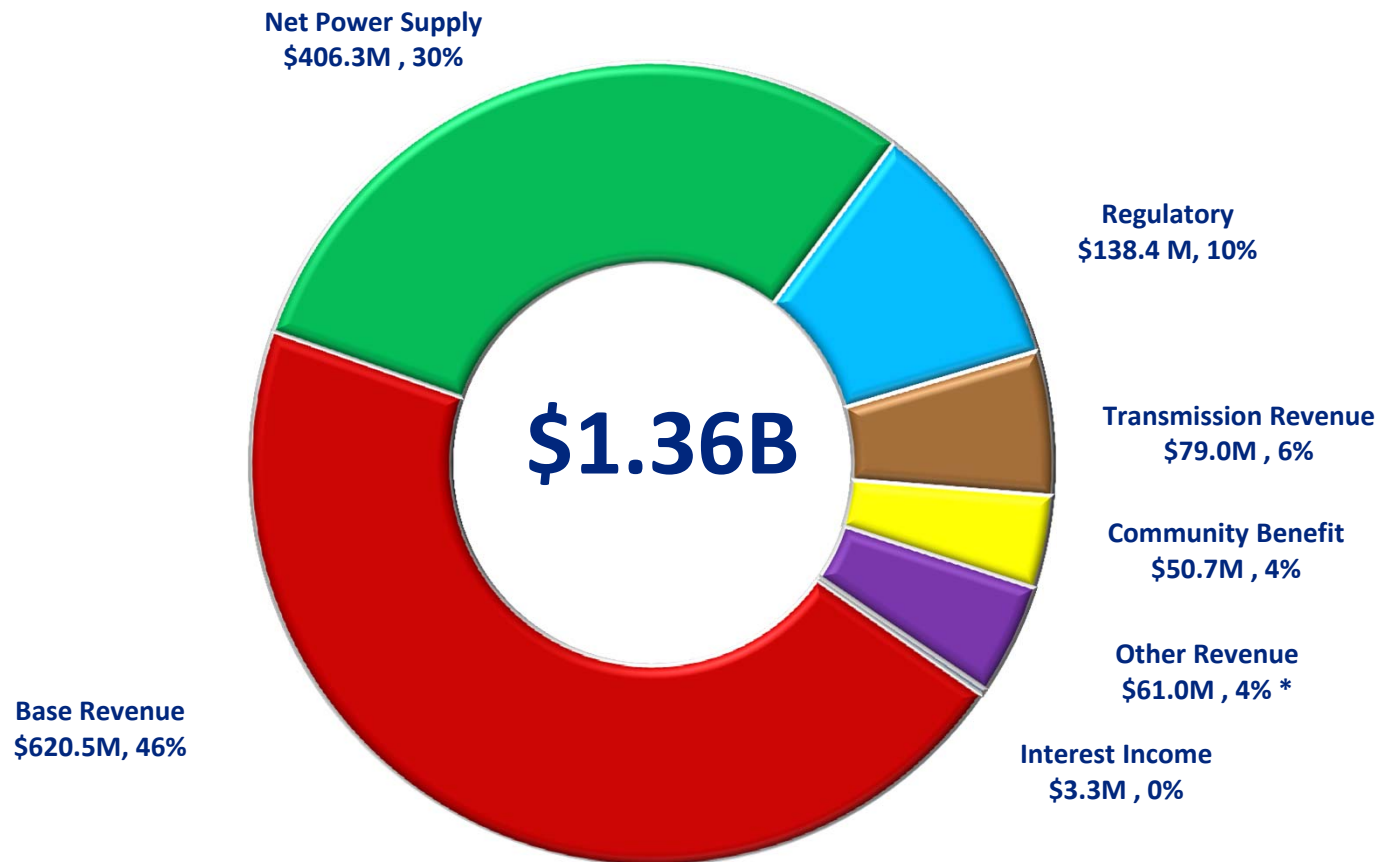


Fund Summary FY 2018

(\$ millions)	FY 2016 Actual	FY 2017 Amended	FY 2017 Estimated	FY 2018 Proposed	FY 18 Proposed To FY 17 Amended	% Change
Beginning Balance	\$279.2	\$310.5	\$334.5	\$379.6	\$69.1	22.2%
Revenue/Transfers In	1,381.0	1,284.2	1,308.1	1,359.2	75.0	5.8%
Expenditures:						
Operating Expenses	516.2	582.1	576.8	585.4	3.3	0.6%
Power Supply Expenses	438.2	361.9	371.9	406.3	44.4	12.3%
Debt Service	115.4	103.2	95.2	100.4	(2.8)	(2.7%)
CIP Transfer	64.6	64.1	63.1	58.7	(5.4)	(8.4%)
General Fund Transfer	105.0	108.0	108.0	109.0	1.0	0.9%
Other Transfers	59.6	48.0	48.0	48.6	0.6	1.2%
Reserve Transfers	45.0	0.0	0.0	35.0	35.0	100%
Total Expenditures	\$1,344.0	\$1,267.3	\$1,263.0	\$1,343.4	\$76.1	6%
Excess(Deficiency)	\$37.0	\$16.9	\$45.1	\$15.8	\$1.1	(6.5%)
Ending Balance	\$334.5	\$327.4	\$379.6	\$395.4	\$68.0	20.8%
FTEs	1,673	1,718	1,718	1,749	31	1.8%



Sources of Revenue



*Other revenue includes On-Site Energy (chiller) \$26.4M, Congestion Revenue \$13M, infrastructure attachments \$6.4M, Misc. Fees \$15.2M



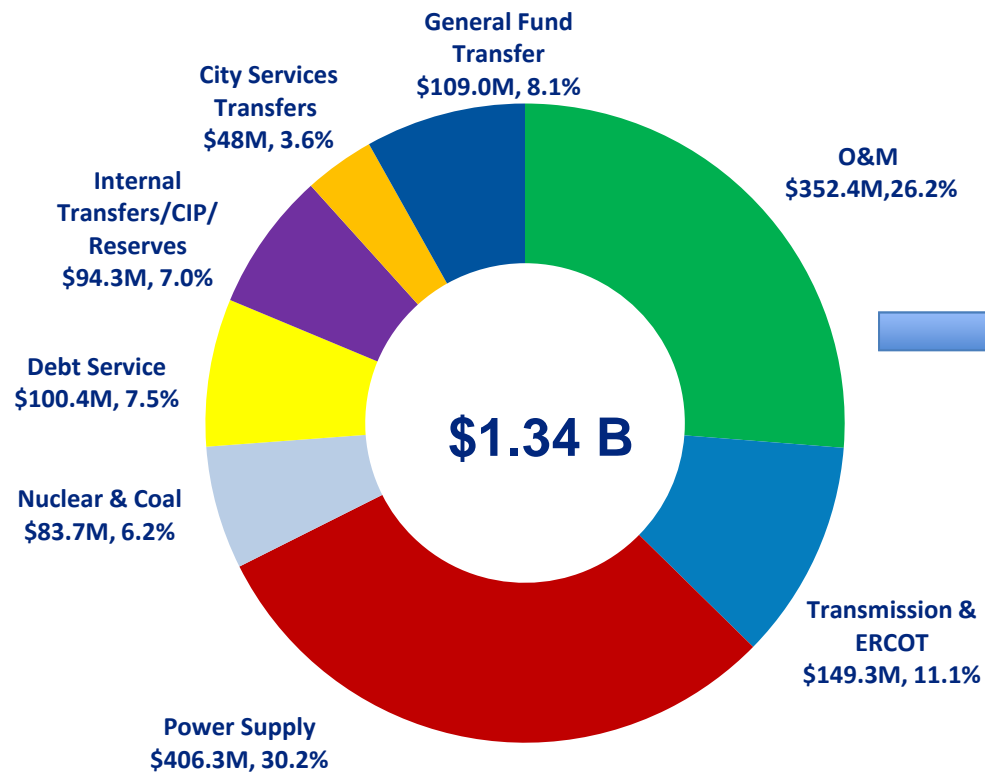
Changes to Revenue from FY 17

- **Base revenue increases \$17.3M**
 - Growth in sales (13,251 gigawatt hours vs. 12,865 FY 17) 3%
 - Customer growth (477,898 vs. 459,473 FY 17) 4%
- **Power supply increases \$44.4M**
 - Increased rate from .2755 to .3067 cents/kWh (final rate pending)
 - Over-collection from previous years expected to be exhausted
- **Community Benefit Revenue increases \$2.5M**
 - No change to rate but an increase in sales
- **Regulatory revenue increases \$4.1M**
 - Increase in wholesale transmission costs statewide

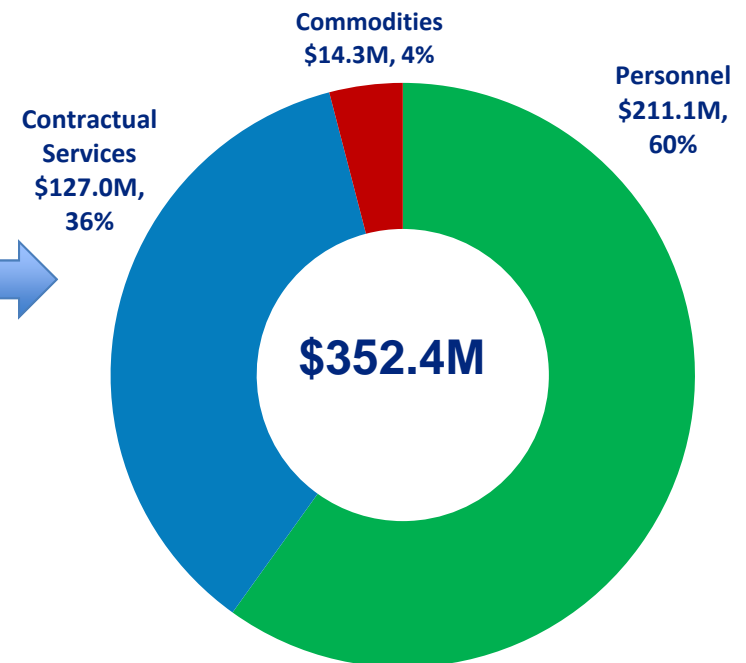


Resources that Austin Energy Uses for its Operations

Operating Requirements



Operations & Maintenance





Operating Expenses Highlights

- City-wide increase in wages 2.5%, and health insurance 4%; \$4.2 M
- Power supply expenses increase; \$44.4 M
 - Higher sales due to customer growth
 - Higher cost of power purchased in the ERCOT market
 - Elimination of over-recovery credit
- Transmission cost increases; \$6.3M
 - Increase in transmission postage stamp rate with AE's share of ERCOT grid is ~ 4%.
- Contract staffing increases & billing system software/hardware maintenance in Customer Care; \$5.1M
- Zero-Based-Budgeting (ZBB) conducted for FY18 reduced budget by (\$10.0M) in operations area including Joint Projects



Personnel Changes

- AE Currently has 1,718 FTEs with a 6.1% vacancy rate
- FY 2018 Proposed Budget includes conversion of 29 temporary and 10 new positions. Transfer out of 8 to COA legal for a net increase of \$59k
- Net addition of 31 FTE's brings total to 1,749

Current programs in lieu of temporaries and contractors:

- 7 FTEs in Customer Energy Solutions
- 3 FTEs in Marketing/Communications
- 10 FTEs supporting CAP program in Customer Care
- 3 FTEs to support customer billing
- 6 FTEs in IT to replace contractors

New Program:

- 10 FTEs in ESD to support Small Cell Nodes program



CIP Five Year Spending Plan

\$ in Millions	Estimate						2018-2022
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Total
Distribution	85.5	81.7	77.6	85.5	86.3	85.5	416.6
Distribution Substation	14.0	7.7	12.1	17.5	10.0	6.6	53.9
Transmission	23.4	30.2	31.5	37.0	36.0	23.2	157.9
Electric Service Delivery	122.9	119.6	121.2	140.0	132.3	115.3	628.4
Power Production	11.8	10.2	15.6	17.3	5.4	3.2	51.7
Joint Projects	18.6	13.0	11.9	12.6	12.7	12.8	63.0
On-Site Energy Resources	25.2	23.7	55.8	37.8	1.1	-	118.4
General	15.1	21.6	25.7	20.2	16.8	14.9	99.2
Total	\$193.6	\$188.1	\$230.2	\$227.9	\$168.3	\$146.2	\$960.7

- Projects for power supply, reliability and technology
 - Electric Service Delivery - 65% of 5-year plan
 - On-site Energy Resources Downtown District Cooling Plant #3 and Austin Community College Highland campus plant
 - General includes facilities funds for future headquarters move



FY 2018 Capital Plan Highlights

- Distribution system growth and reliability projects
- Distribution projects for meter upgrades, battery storage in support of smart grid modernization
- Upgrades to the Hi-cross, Lytton Springs and Sand Hill substations
- Begin transmission work on new substations Northeast and to serve downtown area
- Transmission upgrades for the Gilleland to Techridge and Fayette to Holman circuits
- Repowering downtown project initial phases
- Downtown District Cooling Plant #3 construction
- Mueller Energy Center chilled water transmission line
- Electric vehicle fast charging stations
- Replacement of Supervisory Control and Data Acquisition (SCADA)/Energy Management System





Average Residential Customer Bill Impact

Unbundled 5-Tier Inclining Block Energy Rate (Inside City of Austin Customer)

Average Monthly Bill	Energy (kWh)	FY 2016-17 Rate	FY 2017-18 Rate	\$ Change	% Change
Customer Charge		\$ 10.00	\$ 10.00	\$ -	0.0%
Base Electricity Charge	895	\$ 37.05	\$ 37.05	\$ -	0.0%
Power Supply Adjustment (PSA)*	895	\$ 24.71	\$ 27.76	\$ 3.05	12.3%
Community Benefit Charge (CBC)	895	\$ 5.03	\$ 5.03	\$ -	0.0%
Regulatory Charge	895	\$ 12.02	\$ 12.19	\$ 0.17	1.4%
Total Monthly Bill	895	\$ 88.81	\$ 92.03	\$ 3.22	3.6%
Total CAP Customer Discounted Bill	895	\$ 69.54	\$ 72.44	\$ 2.90	4.2%

* The PSA will be updated with final proposed numbers on August 22, 2017.



Austin Energy Financial Health

	2017 Minimum	2016 Actual	2017 Estimate	2018 Forecast
Standard & Poor's (S&P) credit rating on separate-lien revenue bonds	AA	AA-	AA	AA
Working Capital	\$125M	\$352M	\$341M	\$381M
Days Cash on Hand (Fitch)	150 days	197	207	226
Debt Service Coverage (before GFT) *	2.5X	3.1	3.5	3.9X
Debt Service Coverage (after GFT) *	2.0X	2.2	2.4	2.6X
Debt Equity Ratio	50%	44%	44%	45%
Net Income	\$10M	\$76M	\$14M	\$24M

* Debt service coverage ratios presented do not include imputed debt associated with power purchase agreements



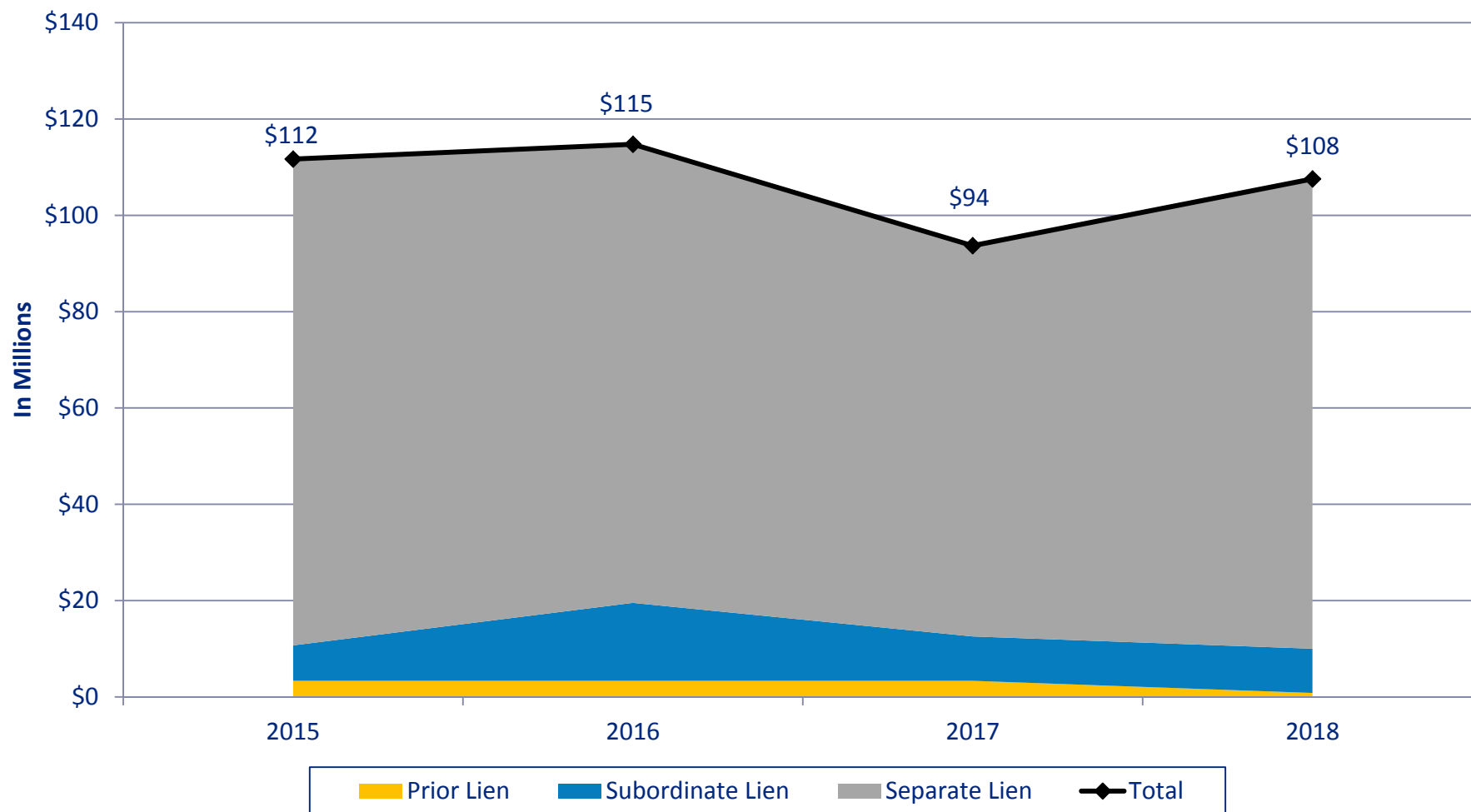
Austin Energy Financial Health - Reserves

	2017 Minimum	2016 Actual	2017 Estimate	2018 Forecast
Working Capital	\$125M	\$352M	\$341M	\$393M
Contingency Reserve	\$96M	\$189M	\$96M	\$100M
Power Supply Stabilization Reserve	\$89M	\$0	\$89M	\$94M
Capital Reserve	\$78M	\$9M	\$12M	\$42M
Total	\$388M	\$550M	\$538M	\$629M

	2017 Budget		2018 Forecast
Non-Nuclear Decommissioning		\$6M	\$14M



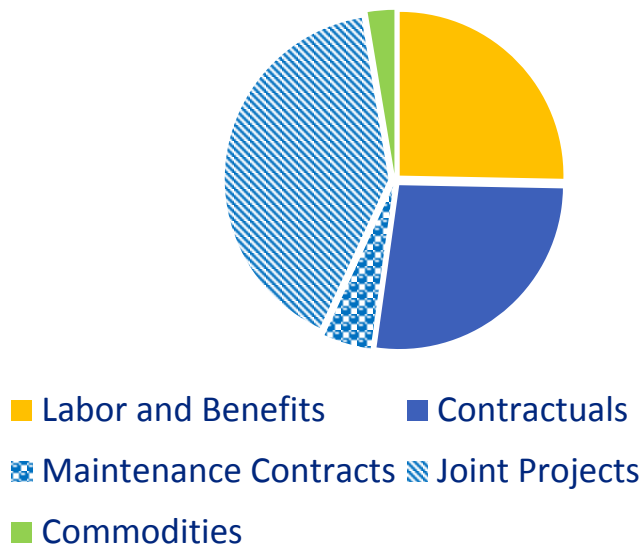
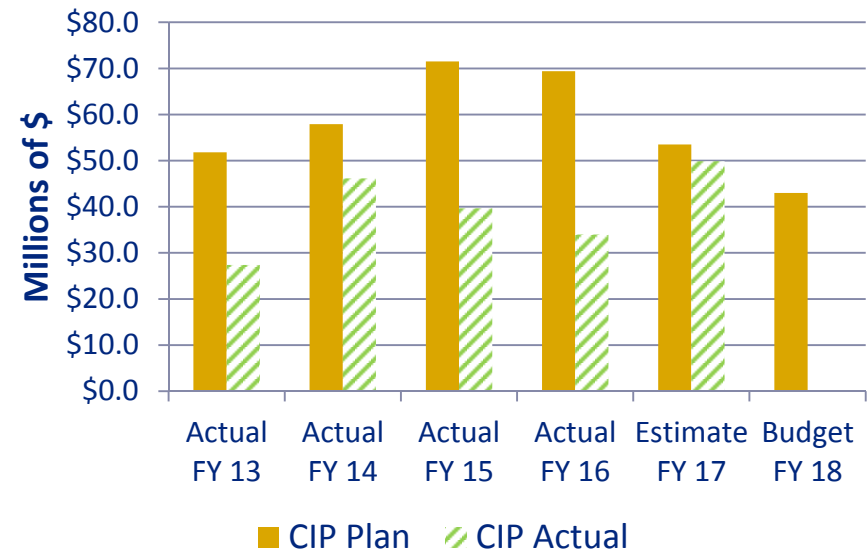
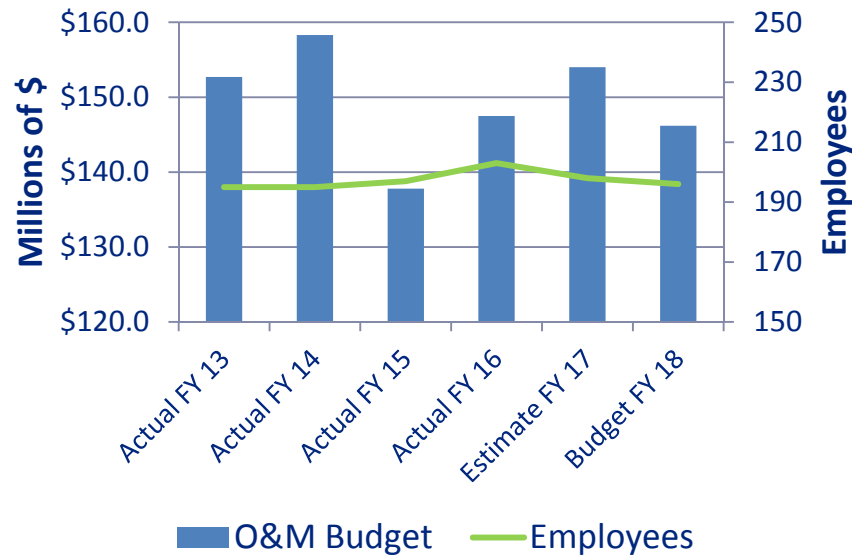
Fiscal Year Debt Service



	2015	2016	2017	2018
Debt Outstanding	1,276	1,222	1,181	1,381



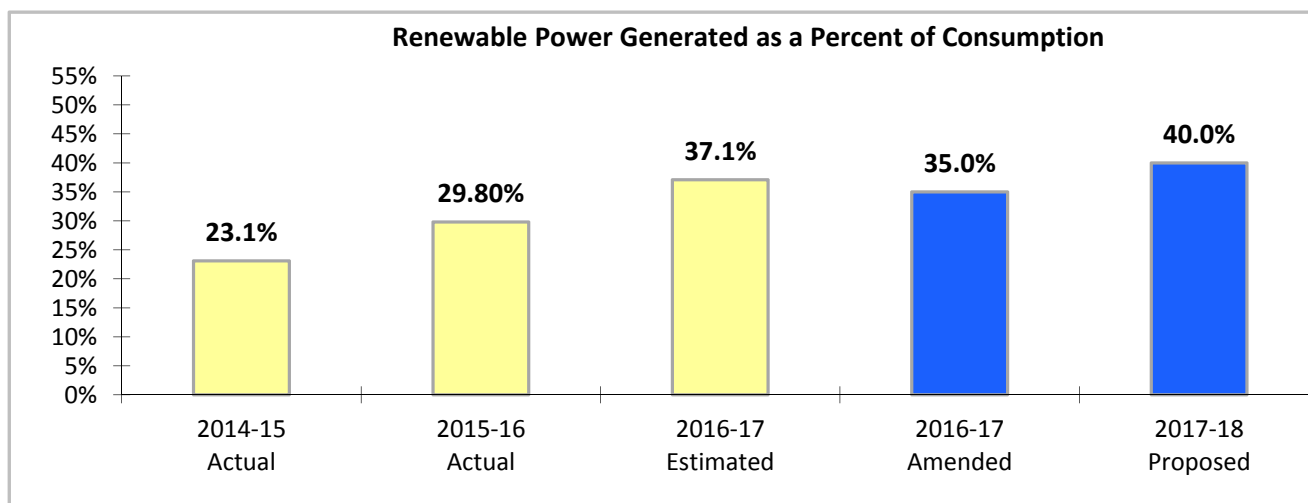
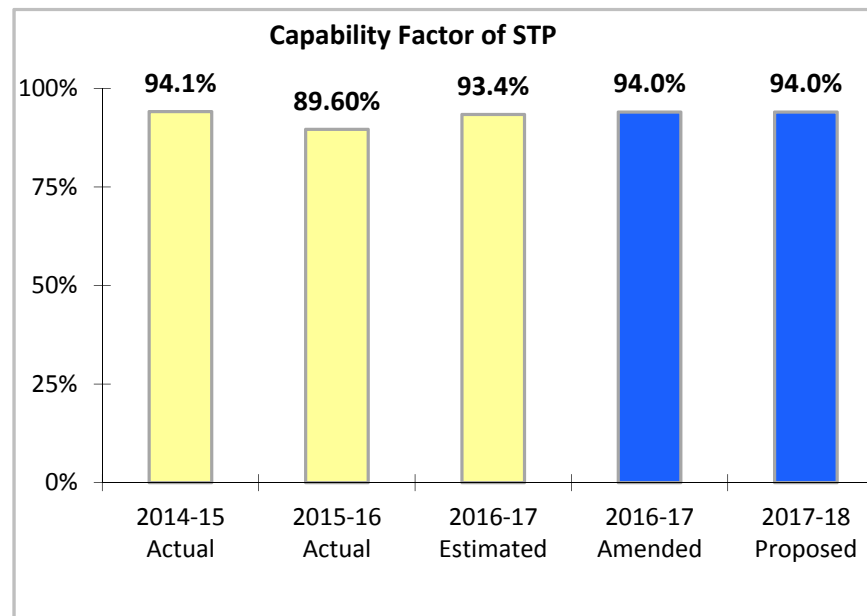
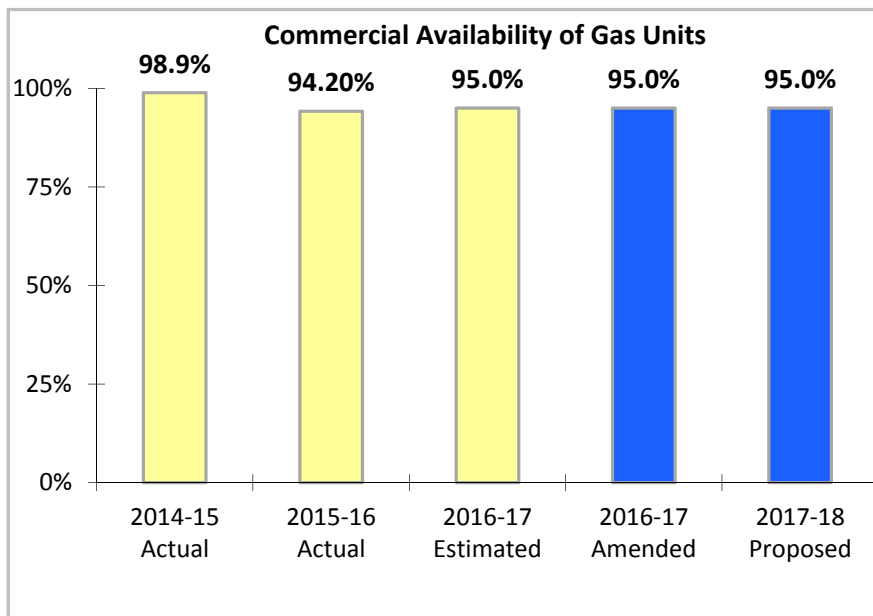
Power Generation & On-Site Energy Budget Summary



- STP & FPP decrease of (\$8.7M) due to fewer scheduled outages, deferred maintenance projects.
- Decker and Sand Hill decrease of (\$2.7M) due to maintenance performed in FY17 and ZBB efforts.
- AE labor costs increase by 2.5%
- Downtown District Cooling Plant #3 and Domain District Cooling Plant Chiller replacement in 5 yr. CIP plan \$46.3M
- OSER O&M budget for FY18 \$13.4M



Austin Energy Power Portfolio





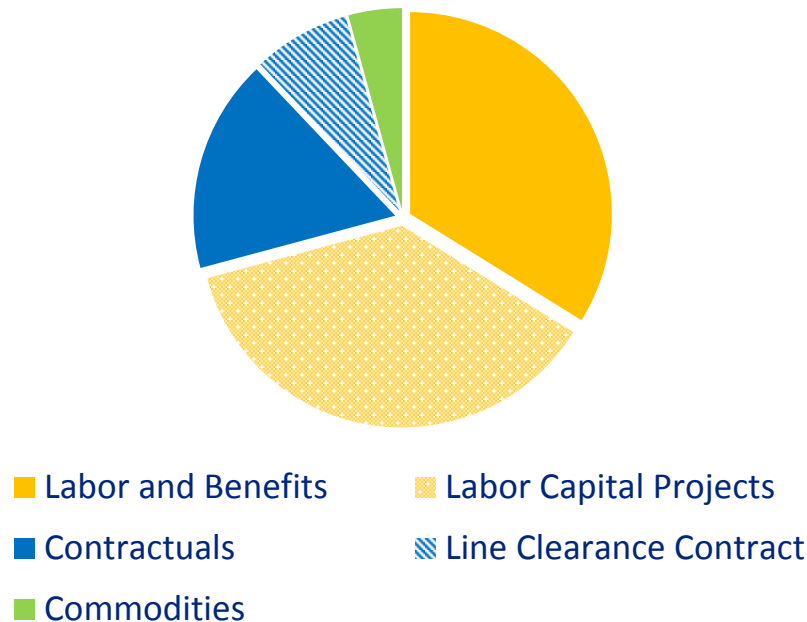
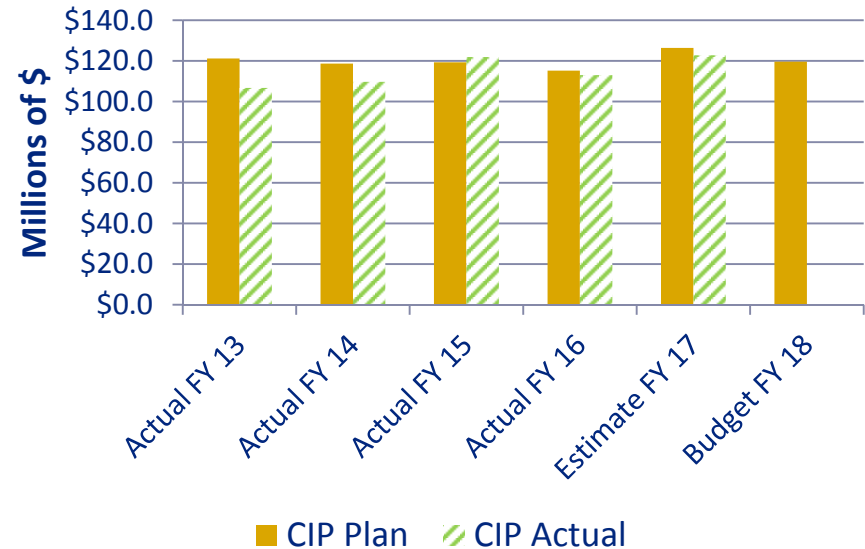
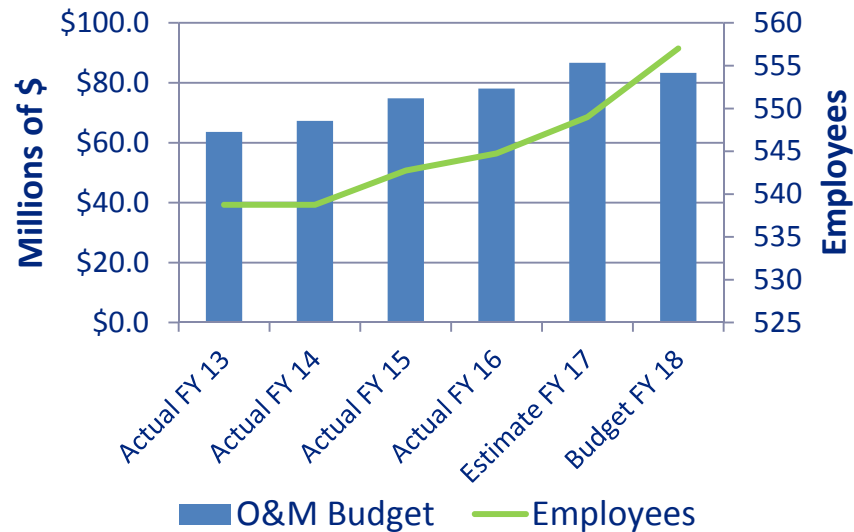
Joint Projects

Joint Projects total O&M; \$83.6M

- **South Texas Project (STP)**
 - Includes \$5M decommissioning
 - Labor & benefits for plant staff
 - One scheduled outage
 - Capital budget includes \$8M for plant investment
- **Fayette Power Project (FPP)**
 - Labor & benefits for plant staff
 - No scheduled unit outages
 - Capital budget includes \$0.8M for various minor projects



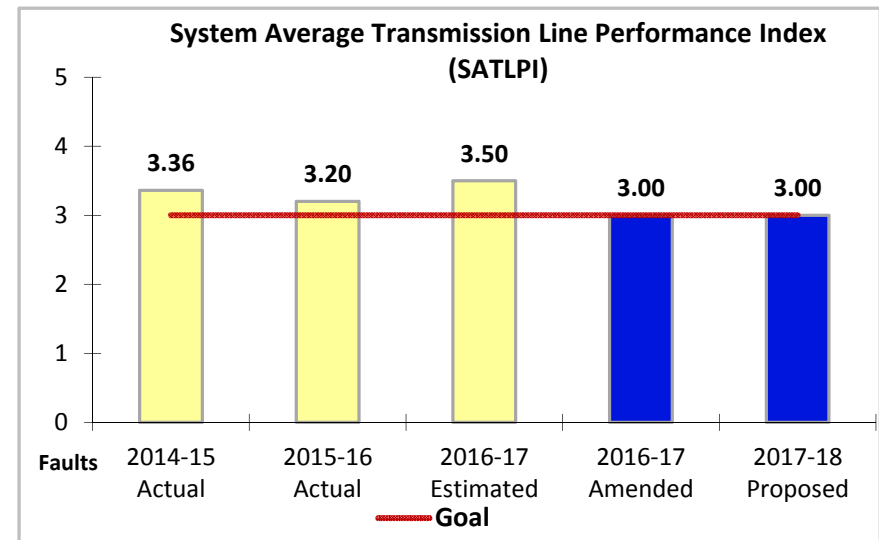
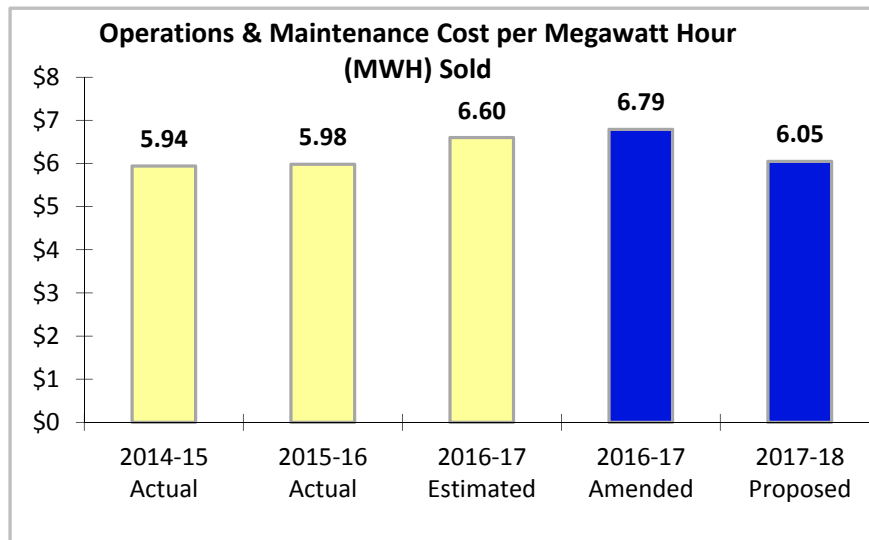
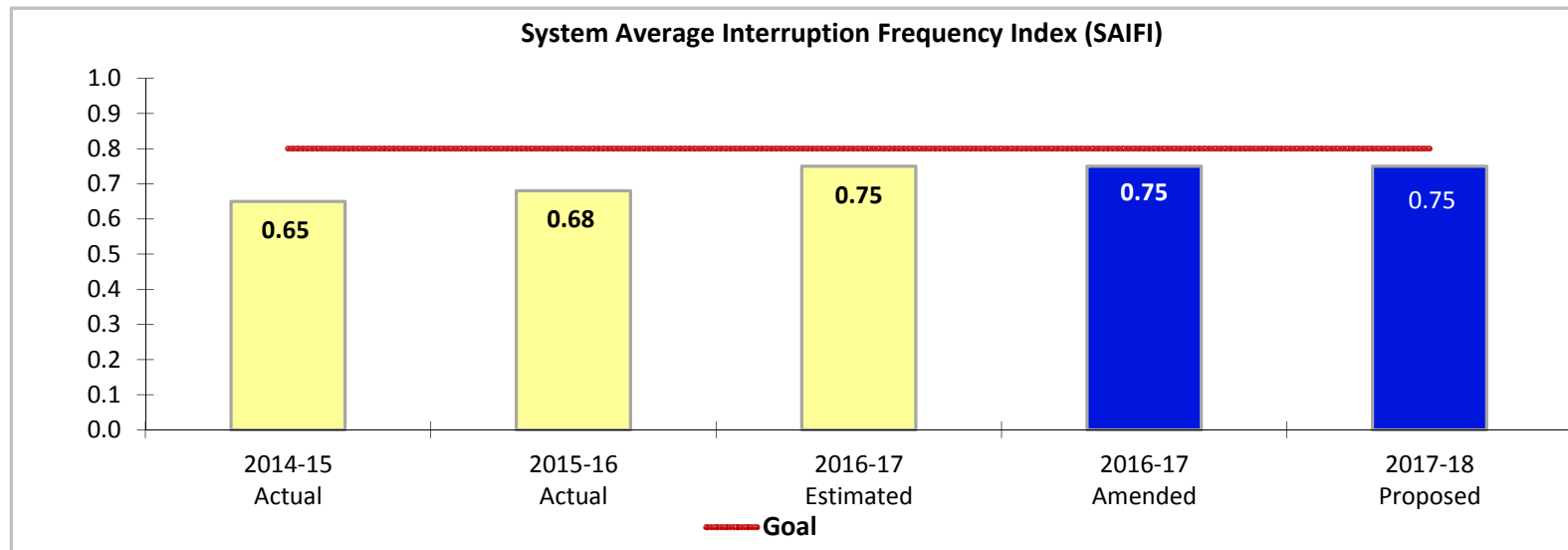
Electric Service Delivery Budget Summary



- 10 FTE's added for new city-wide Small Cell Nodes initiative in FY18 for \$1.2M
- Labor costs increase by 2.5%
- Reduced budget \$3M due to ZBB efforts
- \$12.0 million for replacement of the Supervisory Control and Data Acquisition-Energy Management System (SCADA-EMS) in 5 yr. CIP plan
- \$31.0 million for meter upgrades as part of electric grid modernization in 5 yr. CIP plan

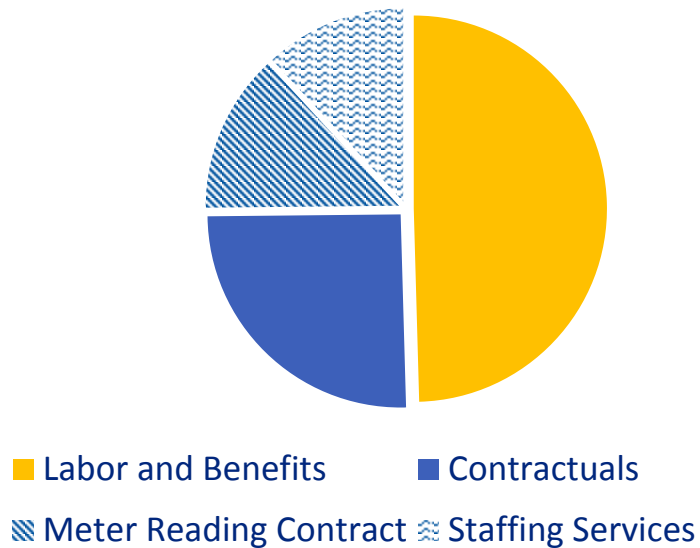
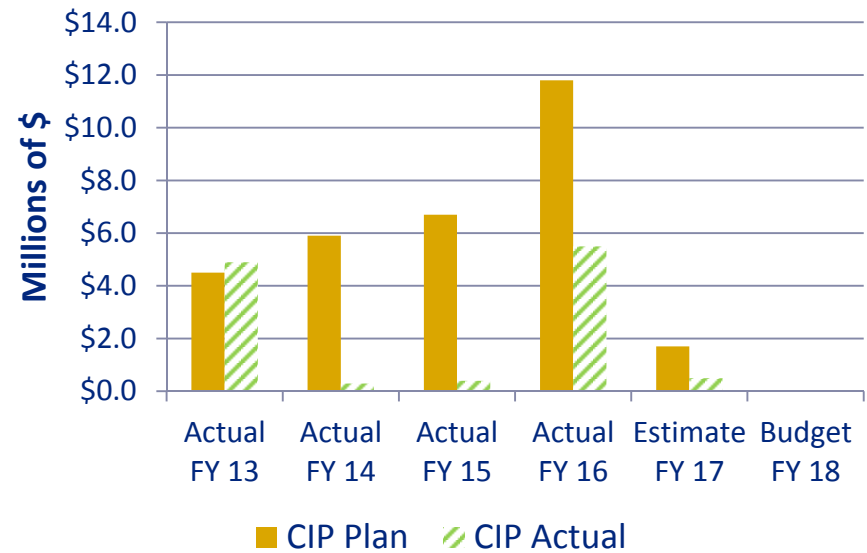
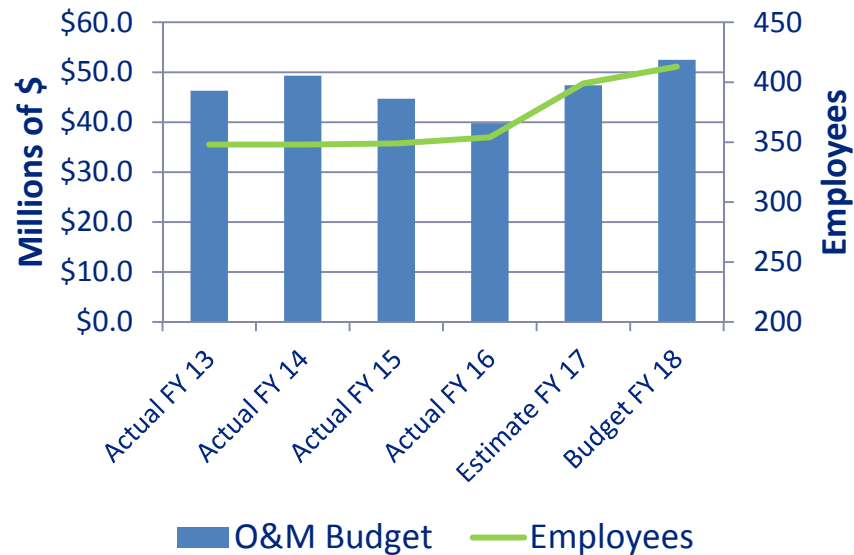


Austin Energy Electric Service Delivery





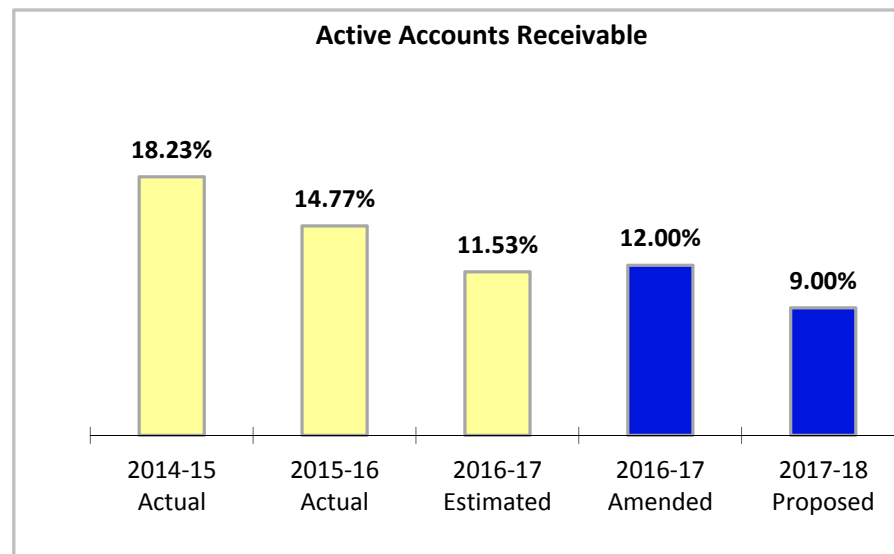
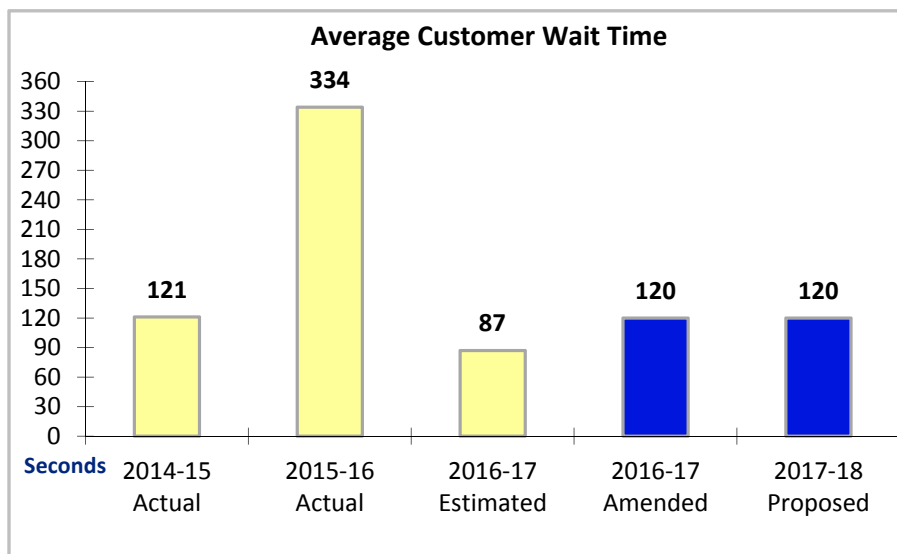
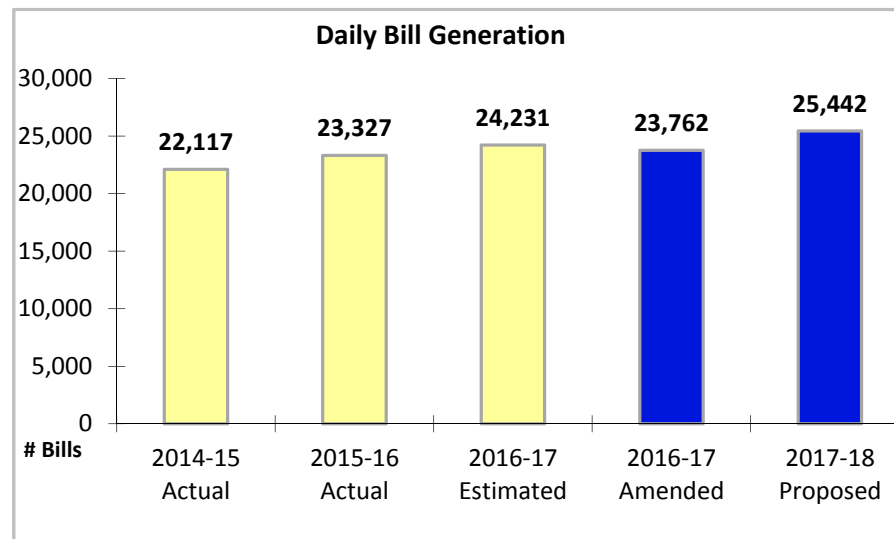
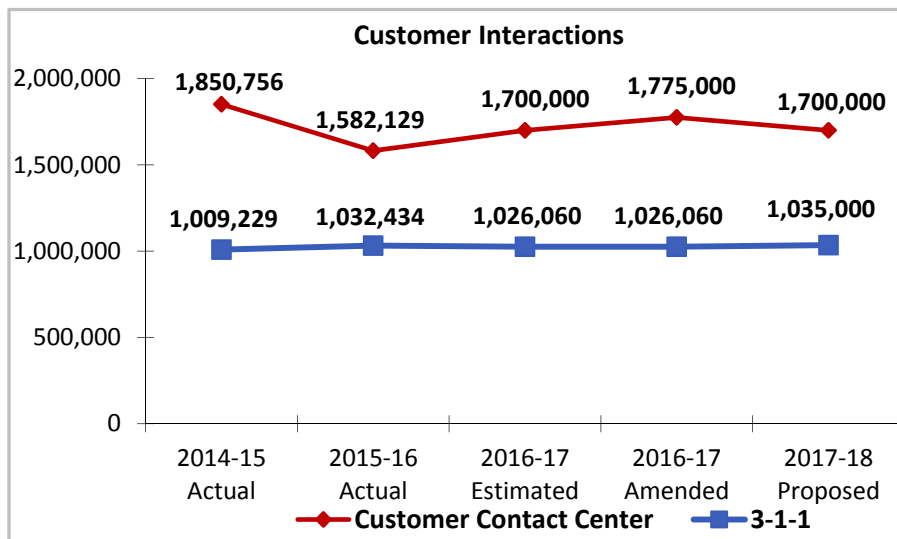
Customer Care Budget Summary



- Increase of \$2.3M for maintenance of the Customer Care & Billing System.
- Increase of \$2.8M in temporary staffing to meet increased service levels.
- 13 FTE's added for temporary and contractor conversion for the Customer Assistance Program and Utility Billing Services.
- Labor costs increase by 2.5%
- CIP reduction due to Software as a Service now budgeted as O&M

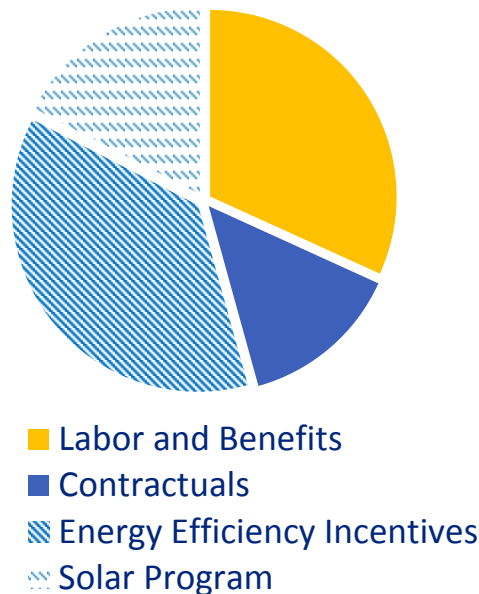
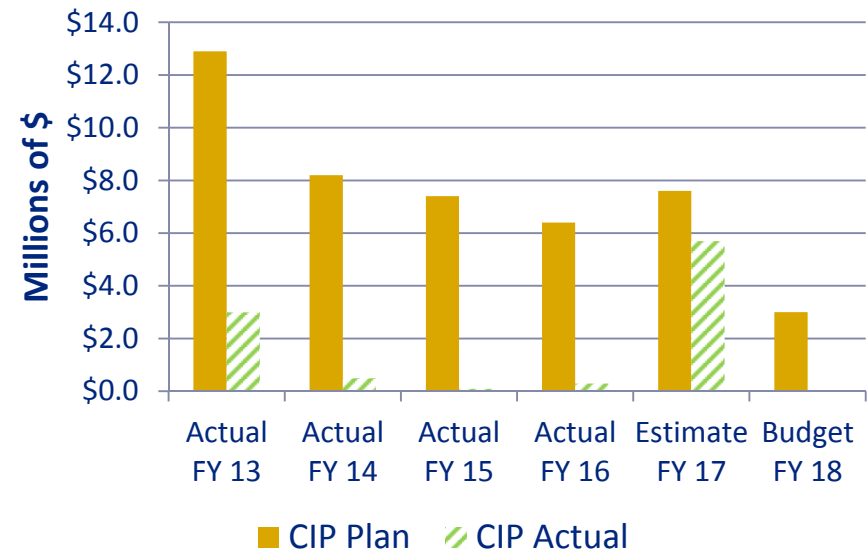
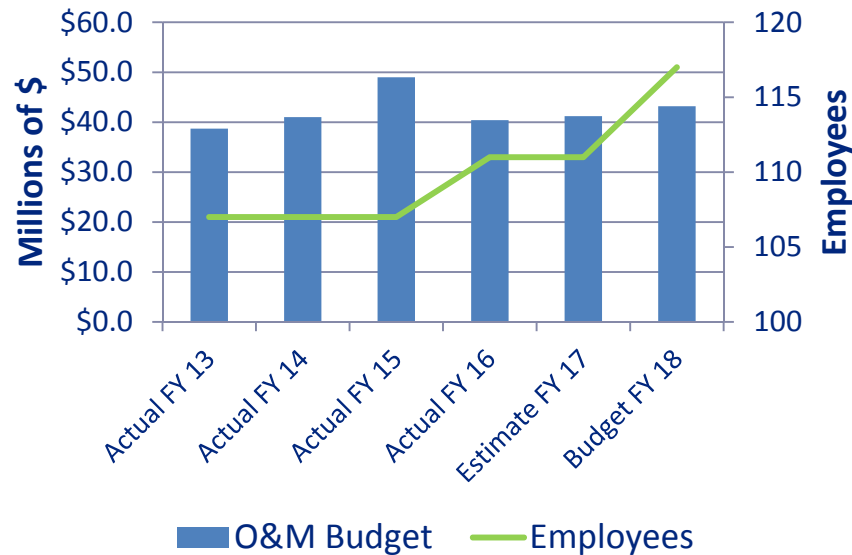


Customer Service Performance Measures





Customer Energy Solutions Budget Summary



- 7 FTE's added in lieu of temporaries and contactors to administer energy efficiency and green building programs.
- Labor costs increase by 2.5%
- Decrease of \$4.1M: Removed FY17 rate settlement adjustment of \$2M, aligned budget to demand, reduced service contracts and consulting services.
- Solar budget unchanged.
- Non-solar demand side management budget is 2.6% of gross revenues.



Energy Efficiency Programs

ENERGY EFFICIENCY INCENTIVES BUDGET			
COMPONENT	2017	2018	VARIANCE
	BUDGET	PROPOSED BUDGET	PROPOSED FY18 TO AMENDED FY17
CAP Weatherization Program	1,000,000	1,000,000	-
CAP Weatherization Rollover	271,117	-	(271,117)
COMMUNITY BENEFIT CHARGE (CBC) CUSTOMER ASSISTANCE PROGRAM (CAP) RECOVERABLE INCENTIVES	1,271,117	1,000,000	(271,117)
AE Weatherization	1,777,000	1,277,000	(500,000)
AE Weatherization Rollover	618,491	-	(618,491)
Multi-Family Rebates	2,500,000	1,850,000	(650,000)
Loan Options	140,000	250,000	110,000
Commercial-Exisit Construction	4,000,000	2,400,000	(1,600,000)
Small Businesses	2,160,000	1,700,000	(460,000)
Green Building	306,000	-	(306,000)
Commercial Power Partner	340,000	290,000	(50,000)
Solar Program - Residential	4,390,000	5,000,000	610,000
Solar PV Performance Based Incentive Program - Commercial	3,110,000	2,500,000	(610,000)
Residential Power Partner-Aggr	850,000	1,608,000	758,000
Load Coop	400,000	1,237,000	837,000
Thermal Energy Storage	28,000	28,000	-
Home Performance with Energy Star	2,200,000	1,700,000	(500,000)
Appliance Efficiency Program	1,200,000	1,300,000	100,000
SPUR Strategic Partnership with Utilities & Retailers	900,000	900,000	-
Municipal Conservation Program	100,000	60,000	(40,000)
TOTAL CBC-ENERGY EFFICIENCY SERVICES INCENTIVES	25,019,491	22,100,000	(2,919,491)
TOTAL CBC RECOVERABLE INCENTIVES	26,290,608	23,100,000	(3,190,608)



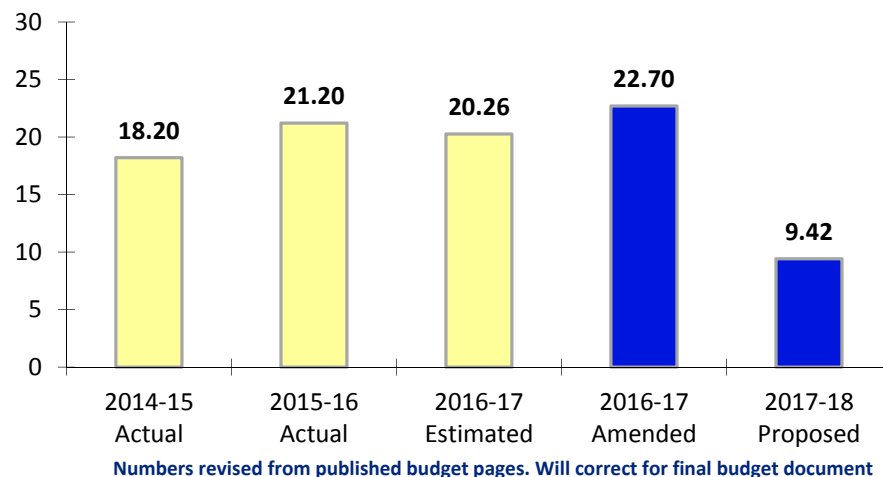
On track to achieve 900 Megawatts (MW) of demand reduction savings and 200 MW of local solar by 2025.



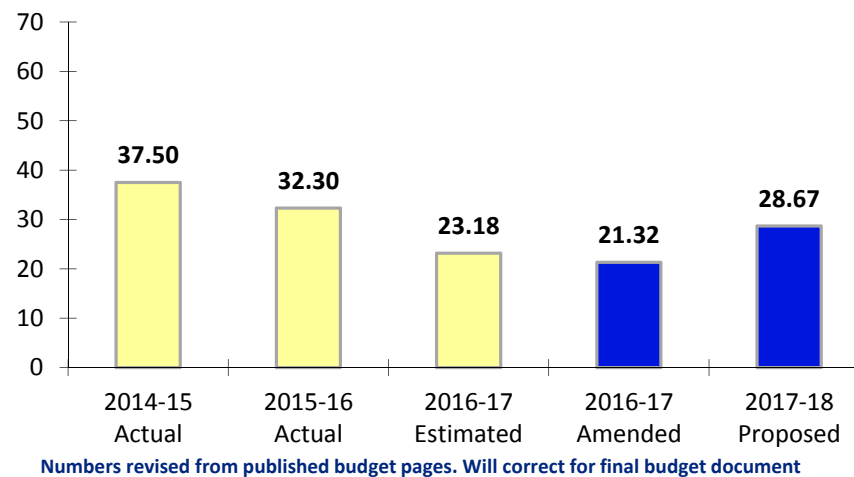


Austin Energy - Energy Conservation

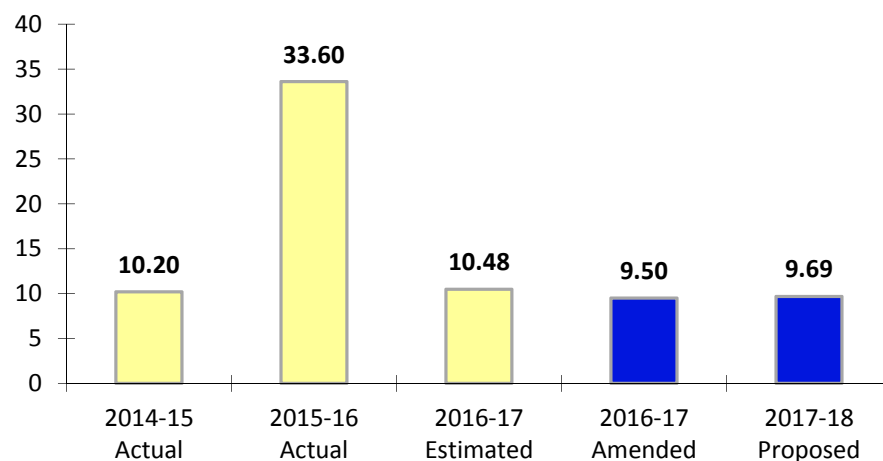
Residential Rebate Megawatt Savings



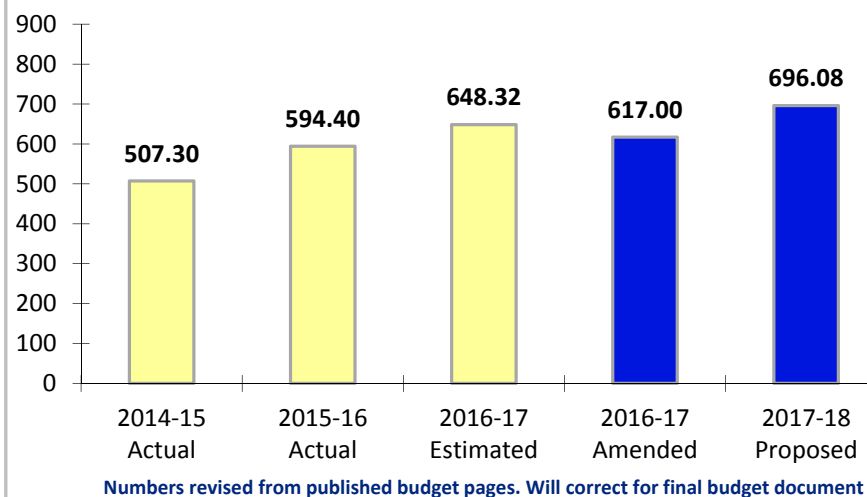
Commercial Rebate Megawatt Savings



Demand Response Megawatt Savings

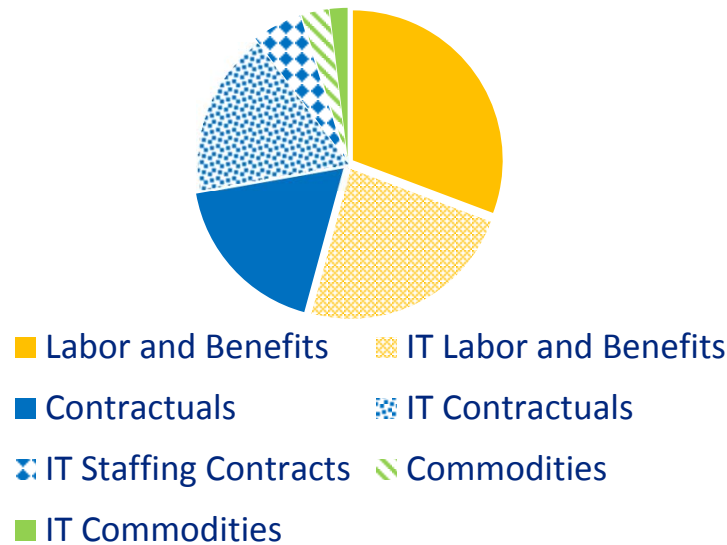
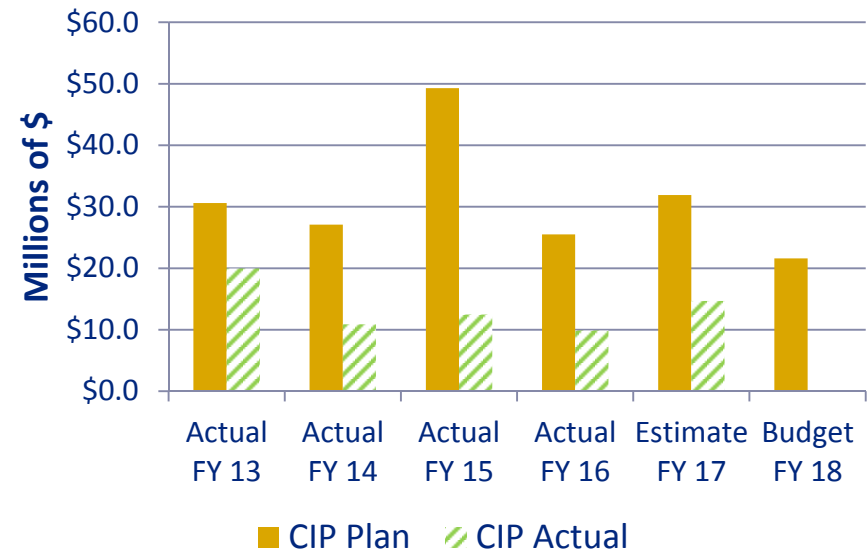
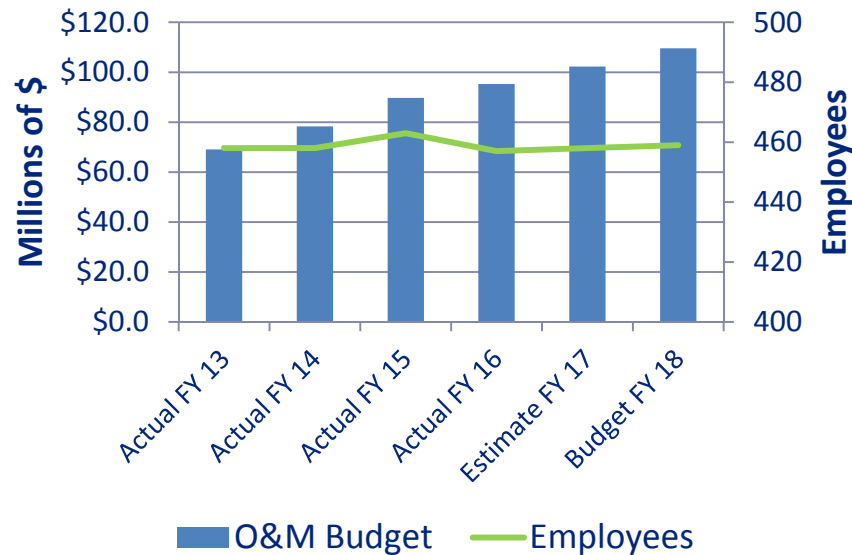


Total Peak Megawatt Demand Savings





Support Services Budget Summary



- Transfer of 8 FTE's to City's Legal Department for (\$1.1M)
- 9 FTE's added for Corporate Communications and IT in lieu of temporaries or contractors
- Labor costs increase by 2.5%
- Increase decommissioning costs for reclamation warehouse for \$1M
- Increase contingency to accommodate ZBB process for \$10M



Tariffs and Fees

Fee Schedule Changes

\$ Change

- Updated costs for hitting or damaging AE assets
 - (poles, pad mount transformers etc.)
- Meter tampering fee for 3 phase (new fee) - \$3,700
- Meter tampering – residential, increases from \$107 \$ 850
- Wireless attachments fee for small cell (new) - \$ 500
- Additional node for small cell (new) \$ 250
- Node Pole for small cell (new) \$1,000
- Wireless attachments to Street-lighting, small cell (new) - per year \$ 20

Tariff Changes

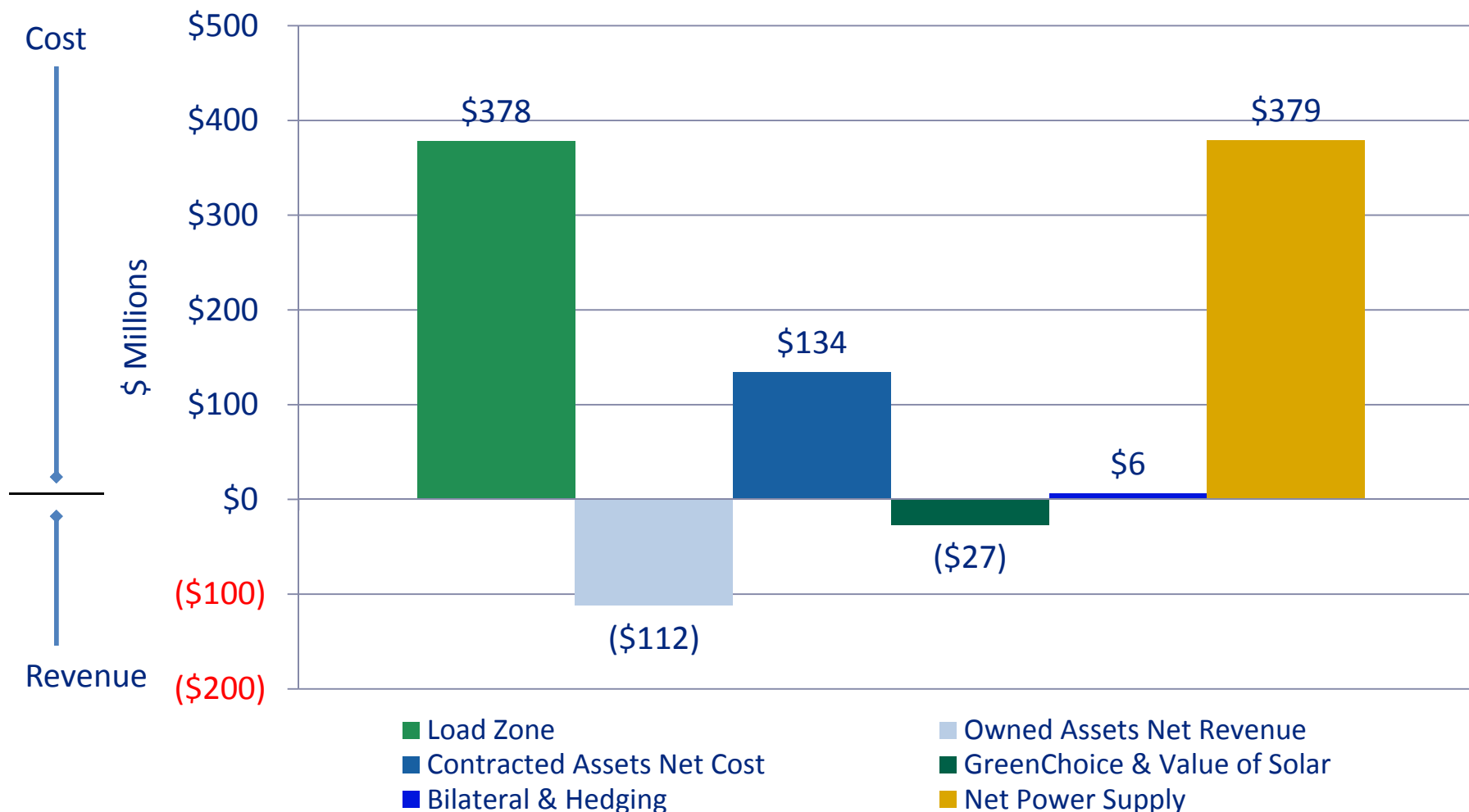
- Eligibility for discounts under CAP program
 - Improvement home site value must be less than \$250,000
 - Household income less than 200% of Federal Poverty Level
- PSA and Regulatory rate changes (final PSA rate published August 31)



Power Supply Adjustment Costs Components

Twelve Months Ending June 2017

Difference between Load Zone and Power Supply Cost + \$1M





Power Supply Adjustment Observations

- Current PSA rate is set below AE's forecasted power supply cost due to an over collection in FY14 and FY15
- FY17 budget requires an amendment to reflect the reduction in PSA revenues associated with the over collection and is paid for with Working Capital cash
- PSA was reduced 29.8% between FY15 and FY17 as a result of the over collection accompanied by low power market prices
- Over collection expected to be fully returned to customers by end of FY17
- Average power market prices are stable but trending upward slightly
- PSA will need to be increased by 11.3% in FY18 to align with power market prices and the elimination of over collection



Power Supply Adjustment Budget FY17

Transaction Example		Year 1	Year 2	Year 3	
Budget	PSA Revenue	\$100	\$80	\$110	AE forecast revenues and makes forecasted expenses match (<u>includes</u> the over/under)
Budget	PSA Expense (Authority to spend)	\$100	\$80	\$110	
GAAP (actual)	PSA Expense (Needed to spend)	\$90	\$100	\$100	AE records actual expenses and makes actual revenues match (<u>causes</u> the over/under)
Over (Under) Annual		\$10	(\$20)	\$10	The over/under either increases or decreases AE Working Capital cash balance
Over (Under) Balance		\$10	(\$10)	\$0	

Austin Energy's budget practice of matching PSA forecasted expenses to the PSA forecasted revenues has created a need to amend the FY17 budget so that we have the spending authority to match actual PSA expenses. It is an issue of timing, not necessarily forecasting. The cash has already been collected from customers and is currently in the Working Capital balance.

Current PSA revenues + Working Capital = Paid Actual PSA Expenses



Power Supply Adjustment Budget FY17

(in millions)

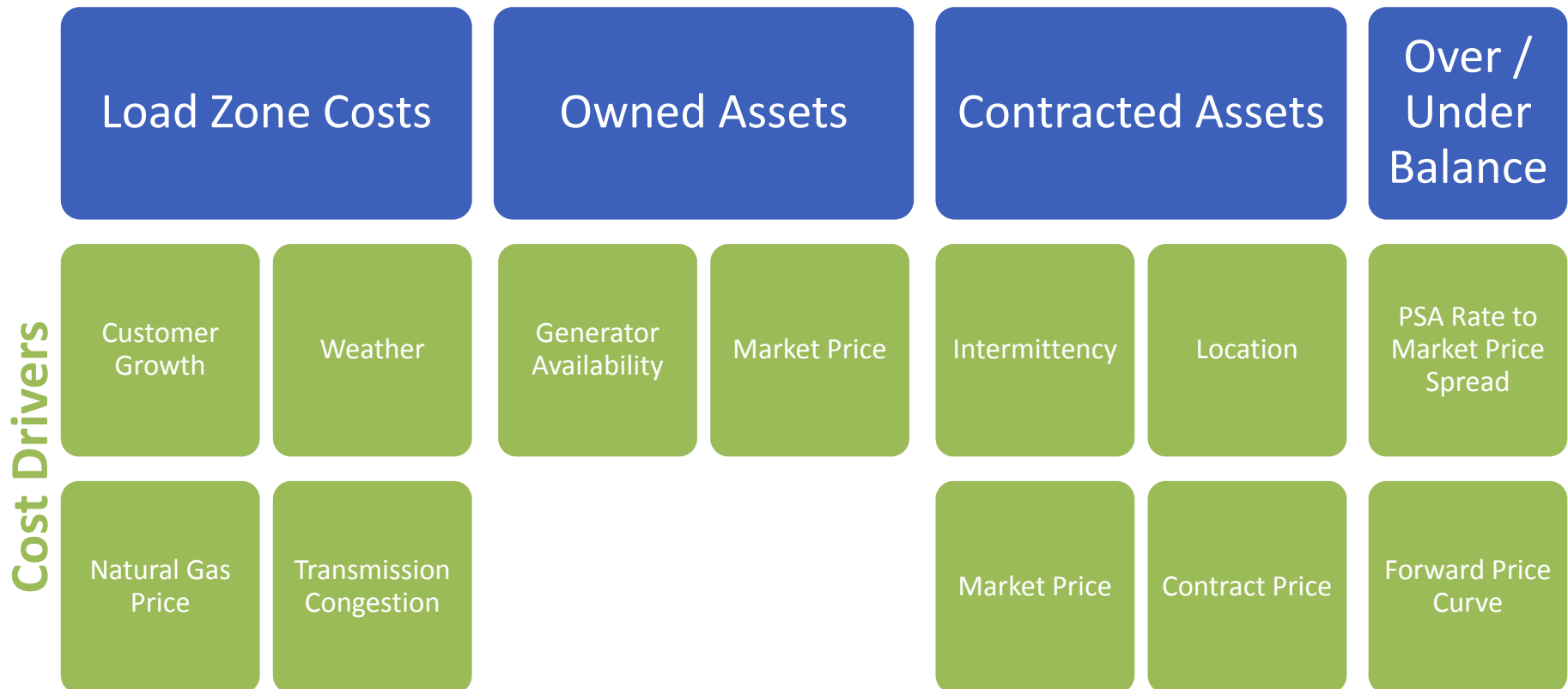
	FY 2015	FY 2016	FY 2017	Total
Approved Power Supply Revenue Budget	\$512	\$433	\$362	\$1,307
Actual Power Supply Expenditures	\$443	\$438	\$462	\$1,343
Difference	\$69	(\$5)	(\$100)	(\$36) (2.8%)

- Over-collection in FY 2015 leads to lower revenue budget for FY 2016
- FY 2016 actual Power Supply expenses only slightly higher than Revenue budget
- FY 2017 actual Power Supply expenses much higher than Revenue budget due to need to lower revenue collected to account for over-collection from previous years
- Over the 3-year period the forecast (revenue budget) is within (2.8%) of actual expenditures



Power Supply Adjustment Drivers

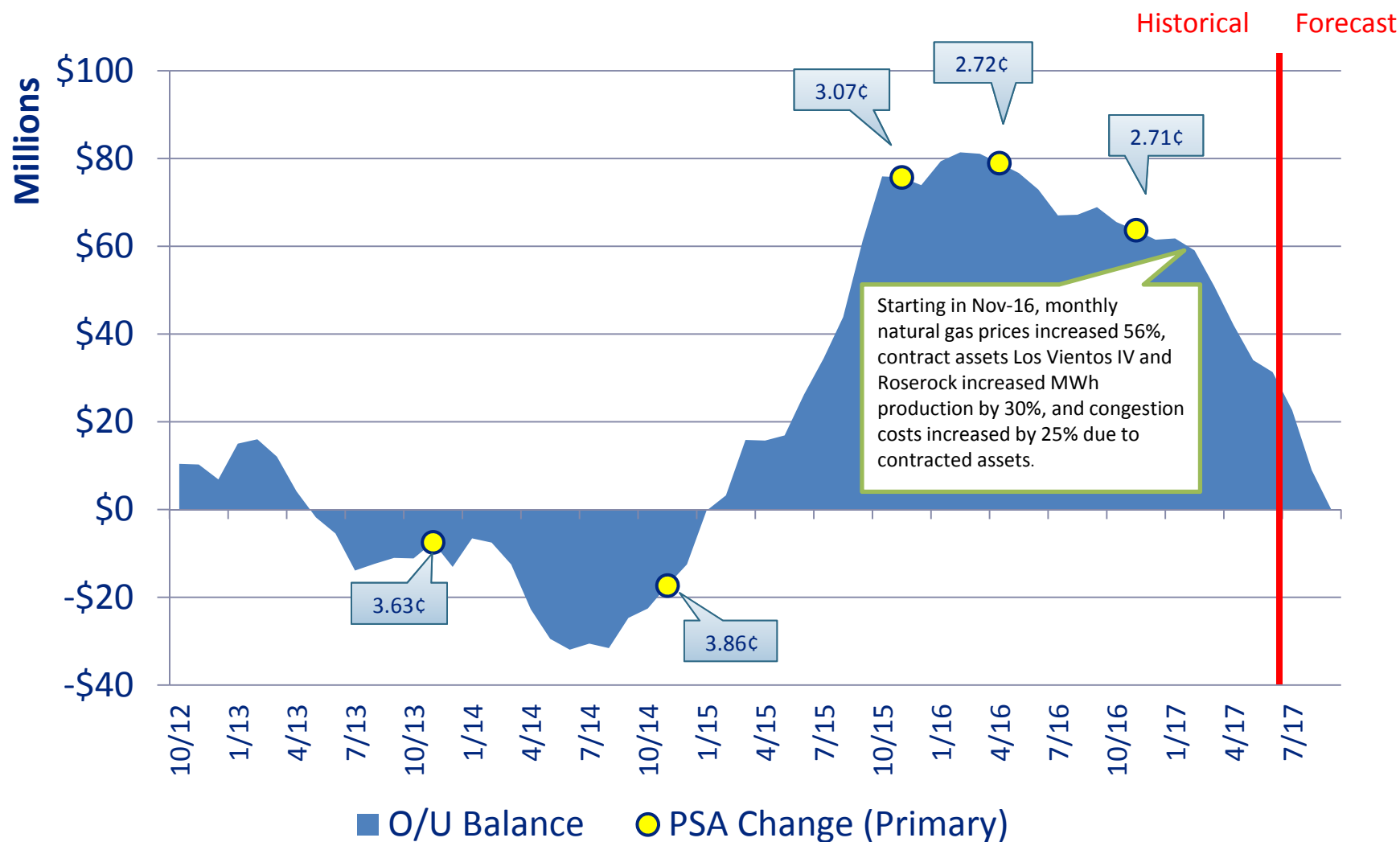
Major Elements Impacting PSA



Future power prices are inherently uncertain



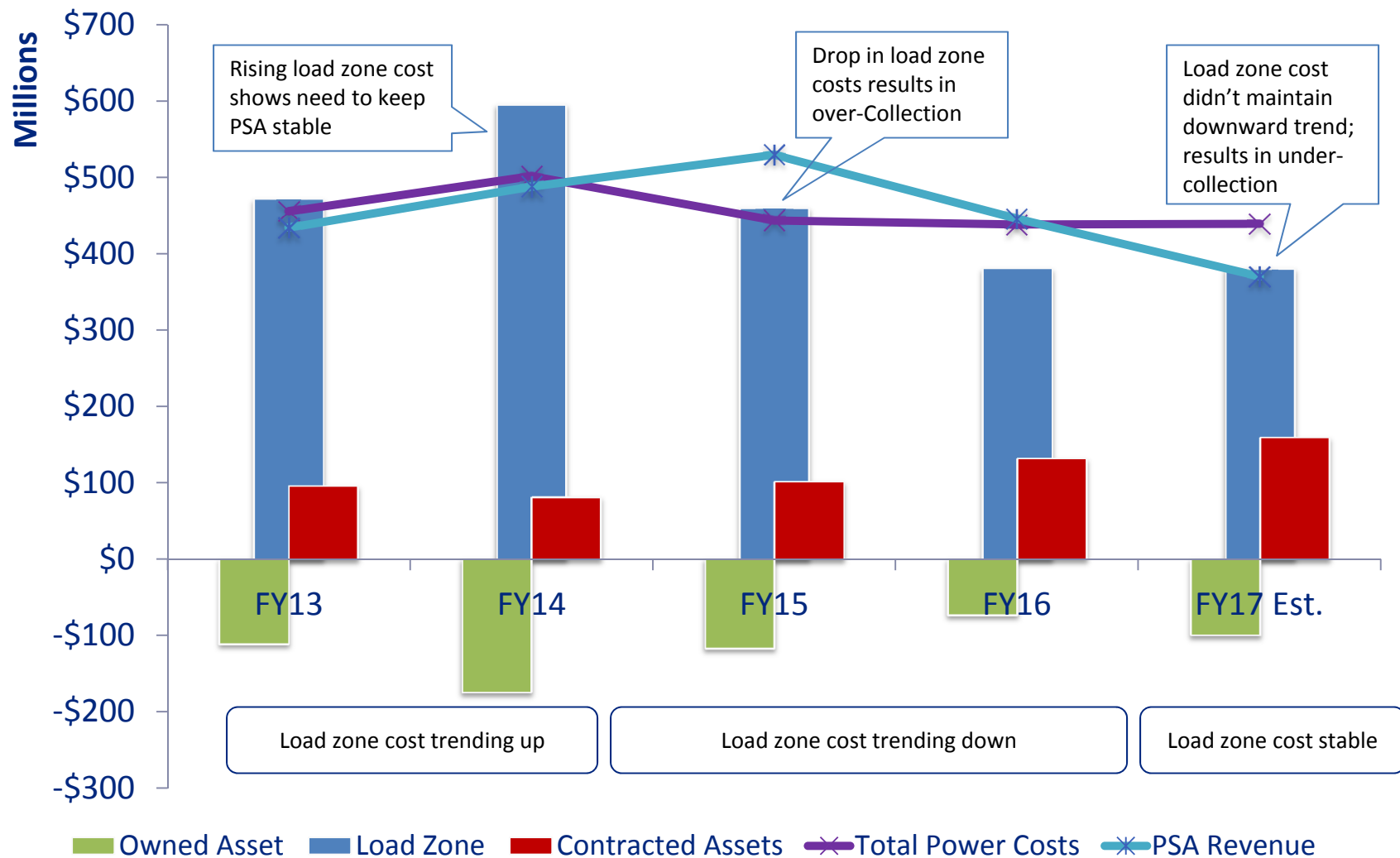
PSA Over (Under) Balance



Over collection in FY14 and FY15 has been returned to customers



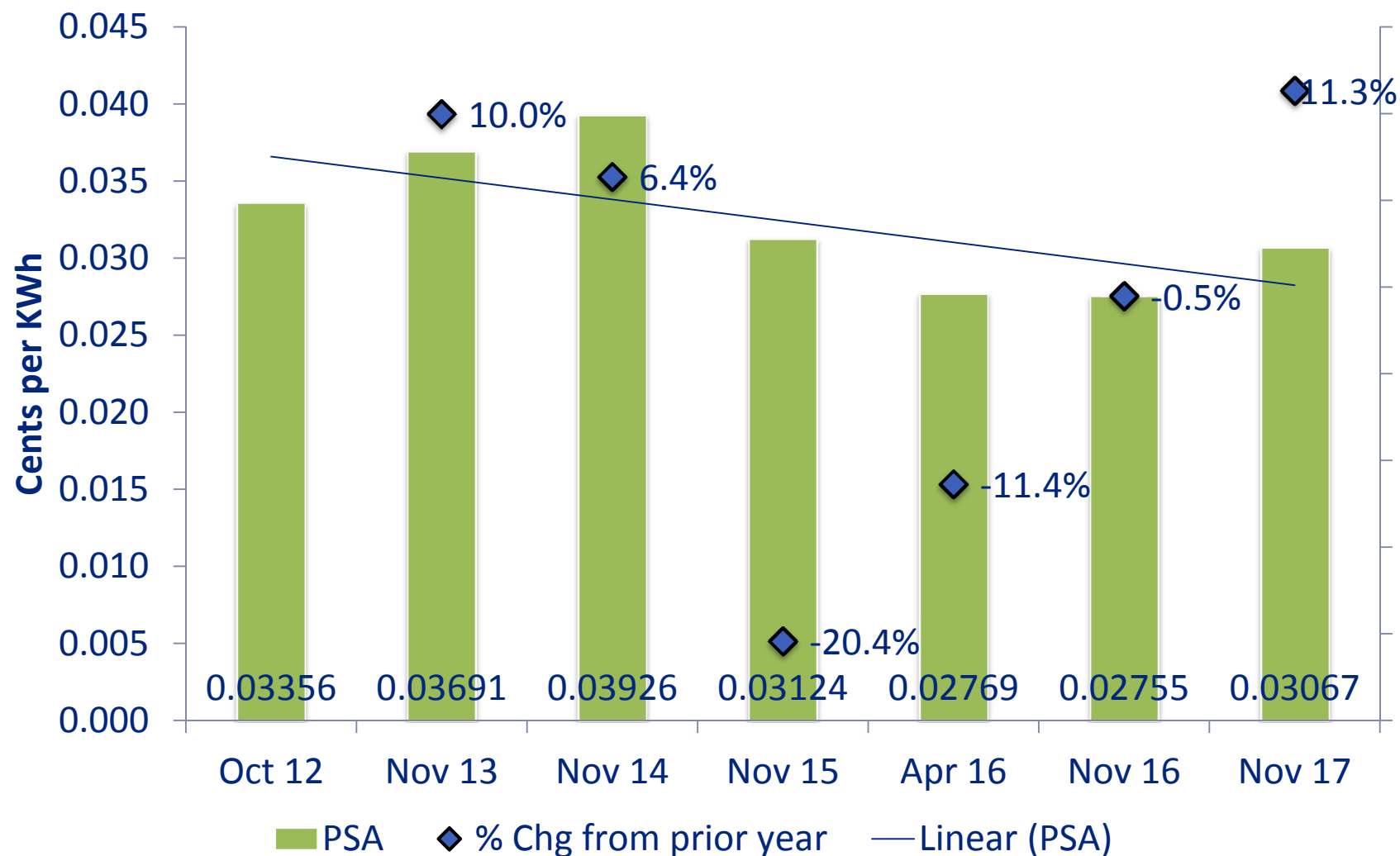
Power Supply Adjustment History



Decreasing load zone costs and over collection caused price volatility



Power Supply Adjustment System Average Rate



Increase in PSA for FY18 reflects a stable power market



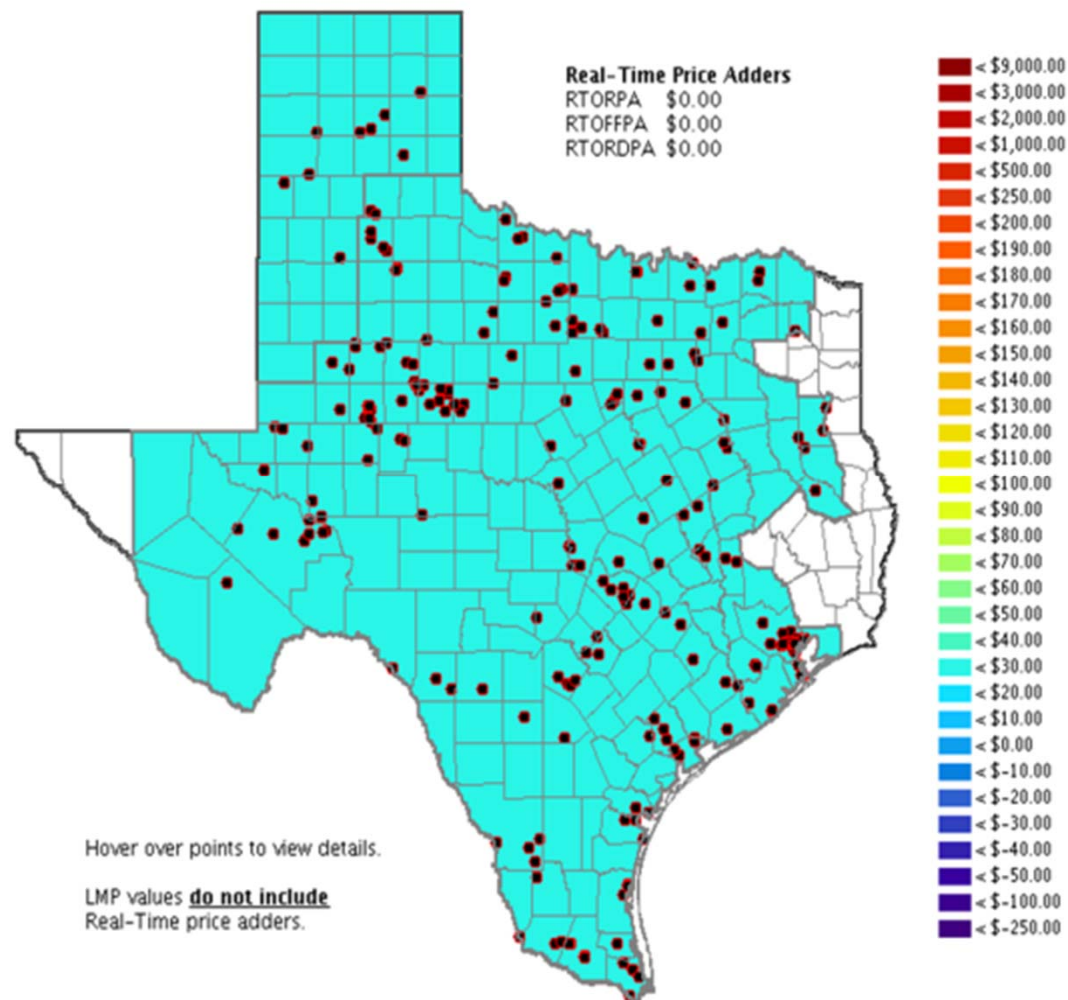
Balance ERCOT Market

Last Updated: Jul 11, 2017 08:45

Download KML: [Contours and Points](#) / [Points Only](#) / [TX Counties](#) / [ERCOT Region](#)

July 11, 2017 at 8:45am

Price per MWh ranges
from \$20.14 to \$20.59,
difference of \$0.45



Plenty of supply and no congestion means low, consistent pricing



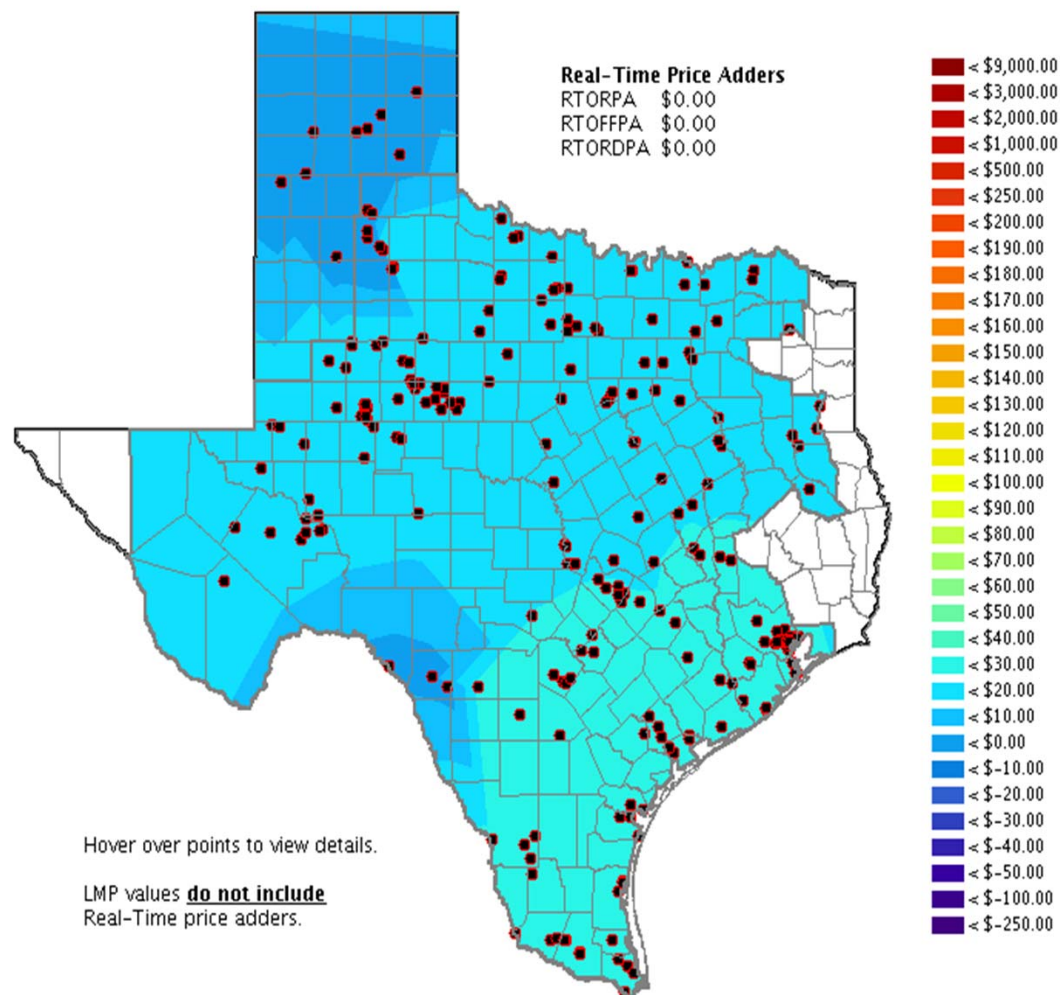
Uneven ERCOT Market

Last Updated: Jul 11, 2017 09:00

Download KML: [Contours and Points](#) / [Points Only](#) / [TX Counties](#) / [ERCOT Region](#)

July 11, 2017 at 9:00am

Price per MWh ranges
from \$20.00 to **-\$10.00**,
difference of \$30.00



Plenty of supply but some congestion means low, uneven pricing



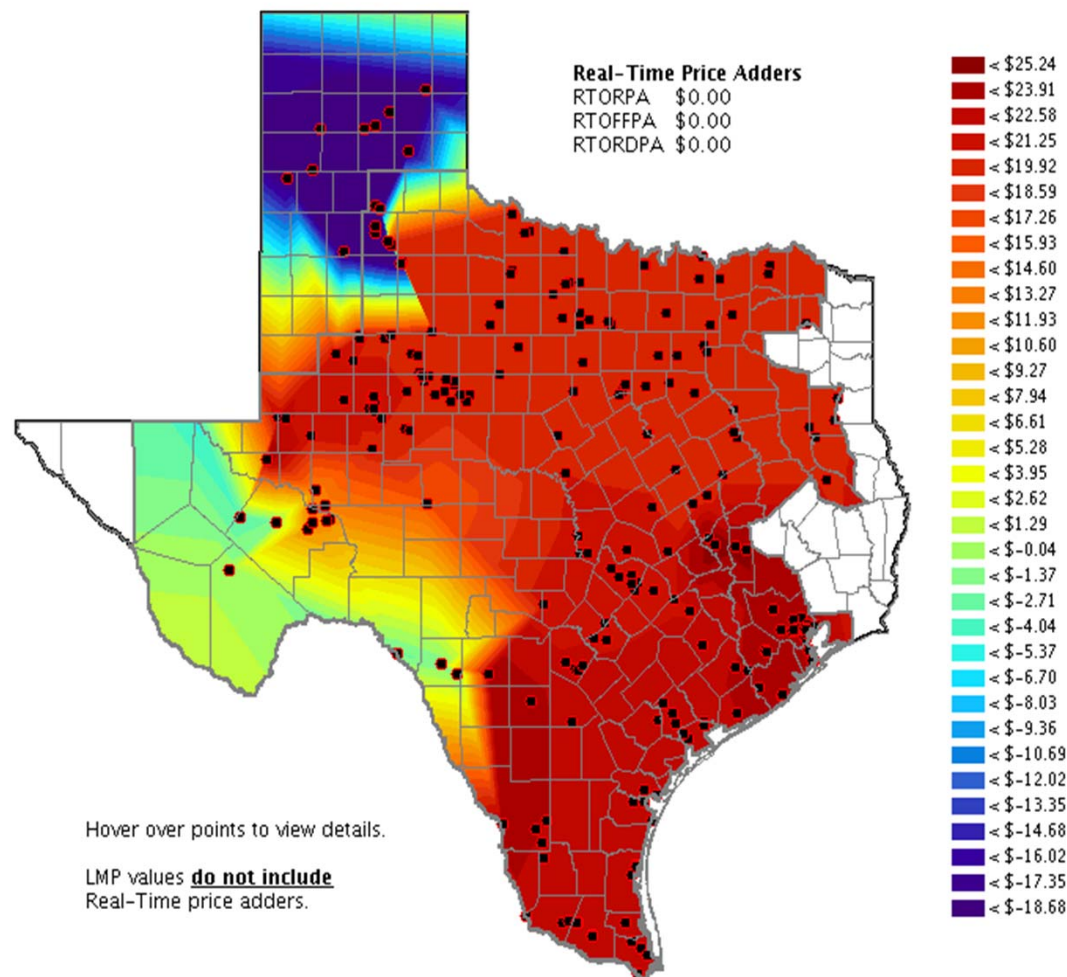
Imbalance ERCOT Market

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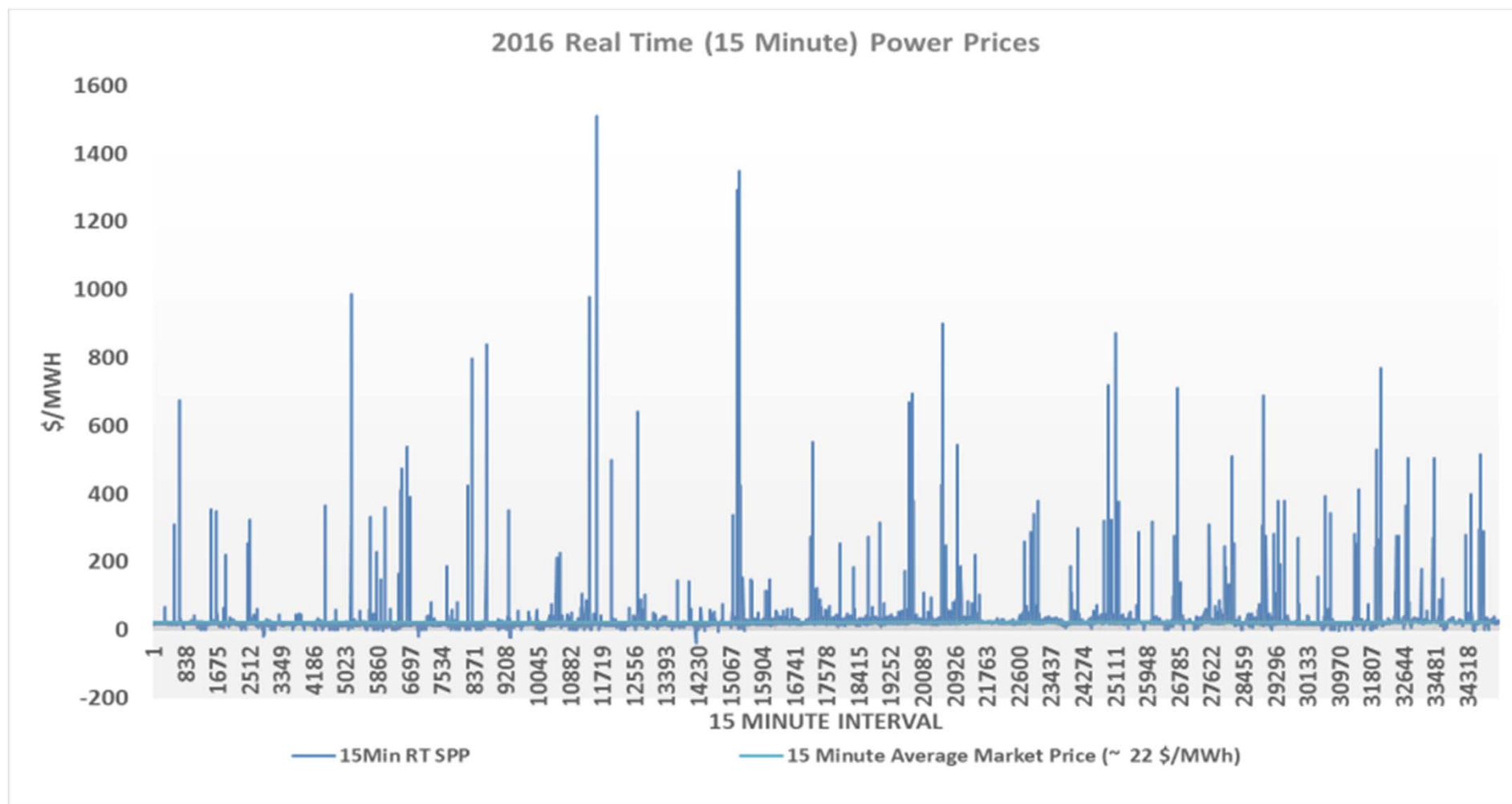
Price per MWh ranges
from \$25.24 to **-\$18.68**,
difference of \$43.72



Supply unable to meet demand means high, volatile, uneven pricing



Price Volatility in the ERCOT Market



Price spikes of \$200 to over \$600 routinely occur for short durations in ERCOT

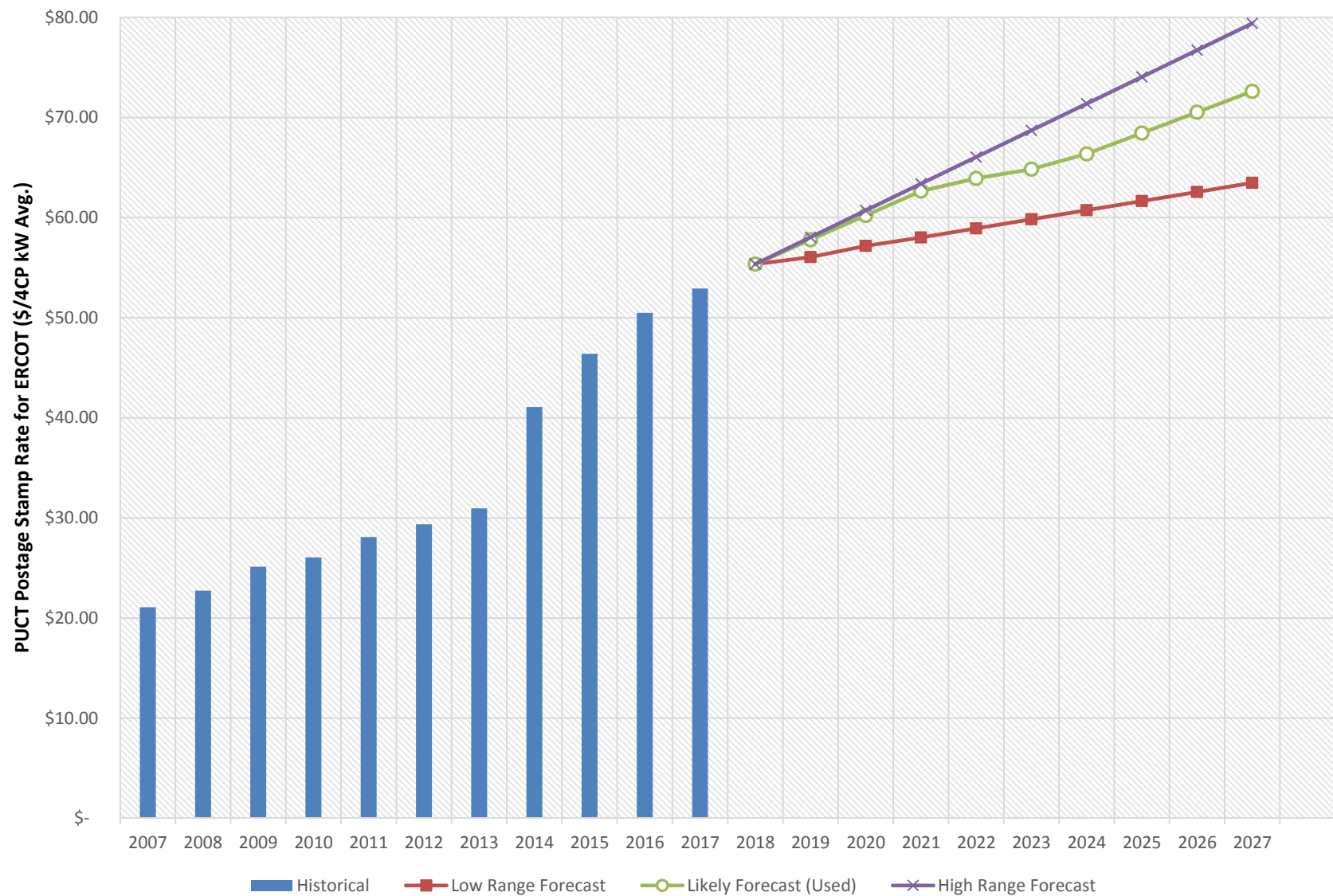


Regulatory Charges

- The PUCT Approved Postage Stamp Rate drives wholesale transmission costs in ERCOT and is continuing to rise, due to an additional \$10 billion in transmission assets throughout State of TX by FY23.
- The Regulatory Charge recovers AE's portion of wholesale transmission costs based on an average 4CP compared to ERCOT's 4CP.
- AE's Regulatory Charge is expected to increase mimicking the trend in the Postage Stamp Rate.
- AE manages wholesale transmission costs through load co-op, DSM, district cooling, and other demand response programs and rebates.

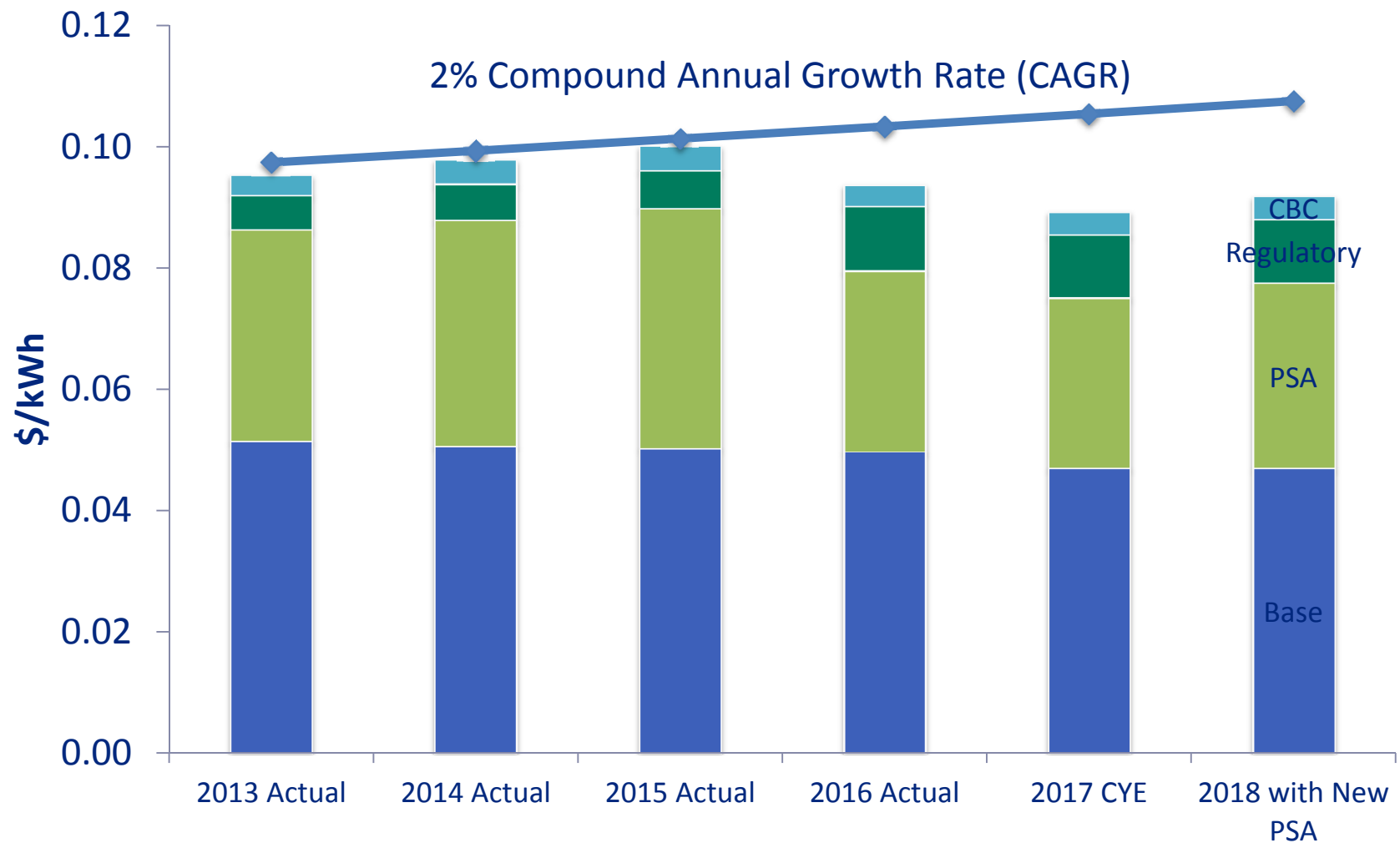


PUCT Postage Stamp Rate Trend





Forecasted System Average Rate and 2% Affordability Metric



AE has maintained rates at or below 2% CAGR since 2013



Load Zone Price Volatility (2013 – 2016)

2013														
Average of PRICE	Months													
Hour Ending	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Grand Total	
2013	1	20.26	18.85	28.18	25.69	24.10	27.83	25.29	23.48	28.00	27.15	25.86	35.29	25.88
	2	19.45	19.11	21.98	23.83	23.04	23.56	22.85	22.10	23.50	23.54	22.53	32.33	23.18
	3	18.87	18.96	21.27	22.73	22.21	21.86	22.08	21.28	21.74	21.36	20.96	27.18	21.73
	4	19.10	19.57	21.27	22.72	21.69	21.86	21.78	20.52	21.40	21.01	21.55	26.75	21.61
	5	20.37	20.82	21.39	23.20	21.97	21.82	21.53	20.54	22.25	21.75	24.42	27.43	22.30
	6	21.94	28.82	24.07	23.30	22.14	21.96	21.70	20.95	23.59	23.15	29.91	31.43	24.37
	7	51.21	30.01	36.19	70.44	38.72	22.44	22.25	22.04	25.43	34.08	28.42	59.44	36.78
	8	26.04	25.56	43.58	34.35	27.24	23.72	22.93	22.06	24.49	29.28	30.42	39.77	29.16
	9	25.34	24.74	27.45	30.84	26.94	25.50	24.90	23.41	26.31	26.39	32.29	38.96	27.77
	10	25.30	24.68	35.13	37.16	27.08	27.70	28.02	26.87	27.79	45.32	29.41	40.02	31.27
	11	27.75	24.34	31.40	33.54	27.83	30.55	34.41	29.66	28.64	28.87	32.68	33.26	30.28
	12	24.94	24.35	30.12	32.82	28.39	35.62	38.23	33.68	33.86	42.99	31.43	31.08	32.35
	13	24.20	23.73	26.85	33.02	30.46	45.32	51.30	38.30	35.89	34.98	33.20	31.63	34.13
	14	23.37	25.43	27.54	35.83	36.32	43.69	51.04	43.09	46.58	35.49	29.22	28.39	35.55
	15	22.76	22.52	27.31	37.79	39.49	46.64	69.67	44.64	46.94	44.83	32.13	27.56	38.63
	16	22.61	22.20	30.91	38.01	43.31	53.35	79.76	57.54	80.07	71.57	31.04	27.26	46.62
	17	22.70	22.26	39.78	39.13	47.66	60.57	92.40	53.39	136.75	73.73	28.74	27.58	53.85
	18	29.72	23.25	28.60	55.07	40.14	47.97	75.67	42.18	44.37	35.98	75.09	55.68	46.23
	19	30.56	41.18	29.47	41.71	35.52	43.56	41.98	37.93	36.70	42.53	35.24	43.09	38.25
	20	25.54	26.87	28.22	32.14	33.09	48.36	40.20	35.43	36.26	46.25	29.67	35.97	34.88
	21	25.06	26.23	29.93	42.60	35.38	39.64	44.34	34.48	33.66	29.17	28.08	36.68	33.81
	22	23.57	24.46	35.92	32.11	32.74	36.29	32.72	29.79	30.45	27.32	25.79	36.95	30.72
	23	24.37	22.50	37.25	27.41	31.25	31.25	29.30	27.39	28.51	25.65	34.14	32.24	29.32
	24	21.27	21.46	31.14	30.98	28.10	27.58	28.42	26.11	26.67	23.53	24.04	30.35	26.67
Grand Total	24.85	24.25	29.80	34.43	31.03	34.53	39.28	31.54	37.08	34.83	30.66	34.85	32.31	

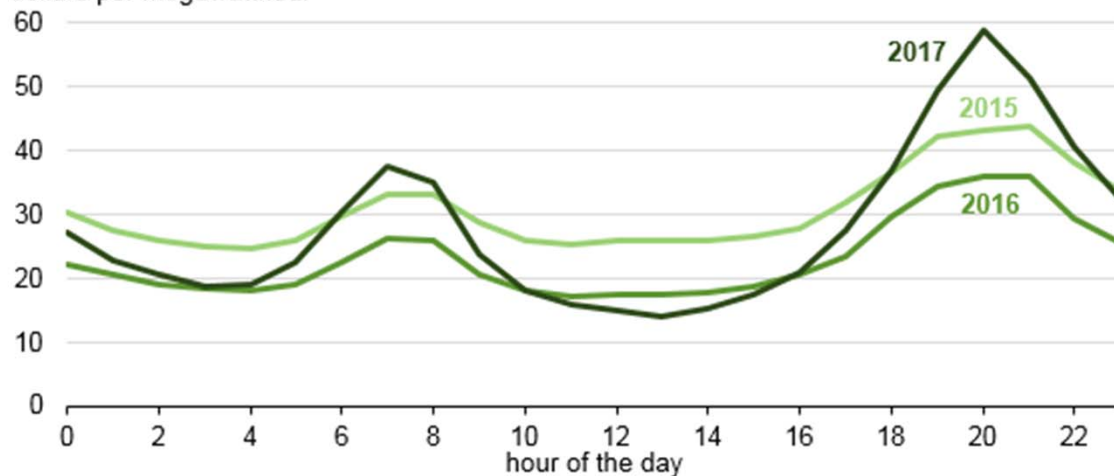
2014														Grand Total
Average of PRICE	Months													
Hour Ending	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
1	23.88	30.34	23.81	30.50	26.55	30.10	25.82	26.11	25.77	26.32	21.38	20.88	25.91	
2	23.01	27.70	24.27	25.49	24.52	26.91	24.67	24.83	24.62	20.97	20.16	19.16	23.82	
3	22.96	27.42	25.95	26.25	23.68	26.11	23.64	23.91	23.77	20.94	20.35	18.87	23.62	
4	24.54	28.35	28.55	27.09	26.03	25.87	23.28	24.02	24.67	21.84	21.02	19.07	24.49	
5	31.33	32.12	30.40	32.71	28.49	27.25	24.55	24.81	26.28	23.80	21.66	19.91	26.90	
6	49.46	42.59	56.58	58.55	27.71	28.06	24.77	25.66	28.84	26.48	29.10	22.07	34.91	
7	217.07	91.66	128.09	35.06	28.86	29.70	26.45	25.55	27.18	26.47	39.53	27.20	58.58	
8	134.30	64.38	84.93	39.94	30.69	31.56	37.90	27.32	28.34	26.64	29.71	25.01	46.74	
9	73.96	81.09	81.55	42.80	33.62	32.16	36.42	29.17	29.39	28.51	31.69	24.81	43.57	
10	68.69	64.13	66.81	39.13	36.31	34.23	46.79	33.73	31.52	29.54	33.25	26.50	42.46	
11	55.96	76.32	51.97	38.61	33.84	36.77	48.61	40.62	34.16	30.59	36.55	26.39	42.32	
12	42.58	70.29	45.01	43.63	37.05	42.49	39.33	47.93	40.54	34.35	31.09	24.82	41.38	
13	32.95	67.82	47.30	46.07	43.36	44.05	41.63	50.15	39.27	38.53	31.19	23.78	41.99	
14	29.97	48.61	40.43	40.36	46.32	48.23	43.83	63.01	51.59	45.11	29.54	23.44	42.49	
15	27.89	42.04	48.98	52.28	63.45	54.77	51.03	66.69	60.82	57.92	28.16	23.11	48.14	
16	27.49	41.33	34.14	53.38	63.65	49.72	61.29	62.72	52.73	59.76	27.86	22.77	46.45	
17	27.99	42.95	33.68	42.04	46.41	45.25	49.41	53.73	41.47	44.25	30.17	23.15	40.02	
18	46.04	62.36	35.09	37.49	38.70	42.04	42.66	46.55	35.59	40.88	84.64	47.49	46.46	
19	54.34	129.79	95.16	38.08	35.96	37.36	37.75	41.17	35.91	45.39	54.02	30.93	52.49	
20	45.58	82.46	78.19	41.43	38.99	37.43	39.29	40.17	34.07	30.90	44.64	27.11	44.78	
21	37.11	68.20	51.04	36.43	34.10	36.23	33.61	34.00	31.42	28.29	30.71	26.31	37.07	
22	31.19	45.04	37.05	43.07	36.04	34.50	31.69	32.70	29.48	28.93	28.52	24.42	33.46	
23	27.59	39.83	30.34	38.12	30.90	32.20	29.25	28.01	28.30	25.46	30.78	34.39	31.18	
24	24.28	31.02	29.03	32.31	29.52	31.78	27.52	27.67	27.87	28.14	23.31	26.85	28.23	
Grand Total	49.17	55.74	50.38	39.20	36.03	36.03	36.30	37.51	33.90	32.92	32.45	25.35	38.64	

2015														
Average of PRICE		Months												
Hour Ending	▼	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Grand Total
1		19.93	16.78	22.03	23.29	19.14	19.65	20.08	19.63	17.98	16.94	18.85	12.96	18.95
2		19.61	16.90	22.51	17.54	16.86	17.99	18.81	18.08	16.16	15.48	14.04	11.49	17.12
3		19.71	16.80	21.34	16.13	15.08	16.45	17.28	16.76	15.53	14.30	12.93	11.22	16.12
4		20.25	17.48	16.72	16.43	15.56	16.29	16.35	15.54	15.38	13.61	13.11	11.69	15.69
5		21.10	18.64	19.63	17.60	16.50	16.64	16.46	16.46	15.78	14.46	13.21	11.95	16.53
6		22.87	20.73	22.63	20.16	22.82	17.68	16.92	17.60	16.52	18.04	15.22	13.48	18.72
7		37.03	34.10	40.57	20.48	23.80	18.52	17.52	18.53	17.56	24.44	23.50	20.74	24.71
8		25.19	24.54	24.90	20.01	20.28	18.85	18.90	18.60	17.37	17.30	18.07	17.28	20.09
9		24.98	40.88	24.79	20.75	21.63	20.22	20.93	20.18	18.37	17.65	21.17	17.24	22.27
10		25.93	51.52	32.70	22.20	24.21	21.43	24.41	22.23	19.86	19.33	19.43	17.95	24.93
11		25.15	39.48	31.61	23.31	26.39	26.21	25.43	26.59	21.30	19.70	20.27	20.41	25.40
12		23.33	24.59	26.78	23.25	29.56	26.06	28.27	28.16	24.07	19.77	19.32	18.10	24.28
13		22.58	22.40	26.64	24.42	43.94	27.62	31.27	32.72	28.66	21.02	19.35	16.77	26.50
14		21.81	22.64	31.19	29.13	50.75	32.43	33.30	39.41	32.55	22.30	19.71	16.90	29.41
15		21.15	21.09	28.27	33.18	67.48	37.71	40.15	66.15	31.47	23.78	19.00	16.59	33.98
16		21.03	21.02	27.27	57.08	46.31	43.00	58.72	113.92	38.43	27.95	19.09	16.38	41.03
17		21.69	21.16	26.32	53.45	34.89	42.70	50.17	97.48	39.50	25.51	21.55	16.75	37.71
18		27.73	26.47	28.67	36.46	28.68	37.81	36.25	48.73	28.71	23.46	35.77	39.45	33.22
19		26.12	52.92	39.43	33.01	25.12	27.19	31.73	31.88	26.29	22.96	22.06	19.75	29.71
20		24.72	26.87	39.90	24.52	24.35	24.73	27.58	28.40	24.82	23.82	22.11	18.28	25.85
21		25.09	32.04	27.23	32.25	29.87	28.55	26.66	28.12	23.99	20.28	19.24	18.08	25.90
22		22.96	26.74	23.96	22.95	26.45	23.69	25.26	24.65	21.69	19.21	18.64	15.87	22.65
23		21.99	21.33	23.49	23.97	27.00	22.32	23.61	22.40	20.03	21.58	16.93	15.80	21.72
24		20.83	18.34	20.95	24.24	24.94	20.44	21.35	20.53	19.11	18.00	15.13	13.44	19.79
Grand Total		23.45	26.48	27.07	26.49	28.40	25.17	26.97	33.03	22.96	20.04	19.06	17.02	24.68

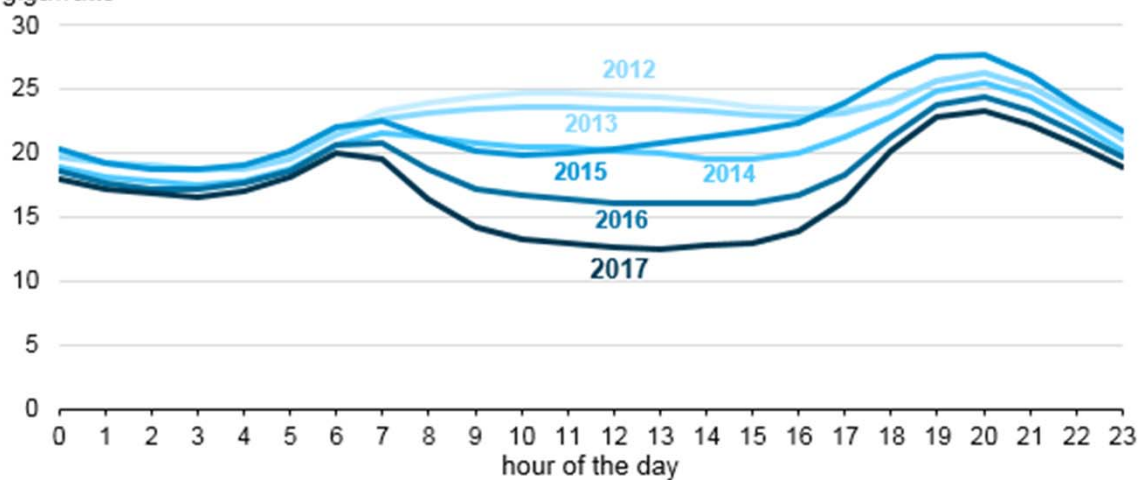


The California Duck Curve

California Independent System Operator average hourly day-ahead energy market prices
January through June average
dollars per megawatthour

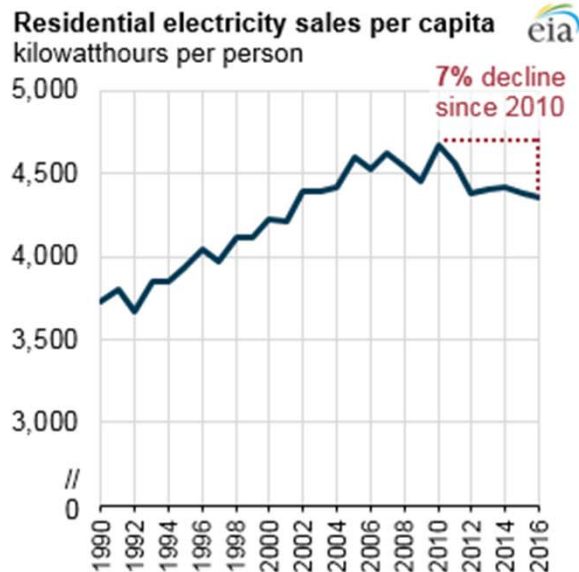
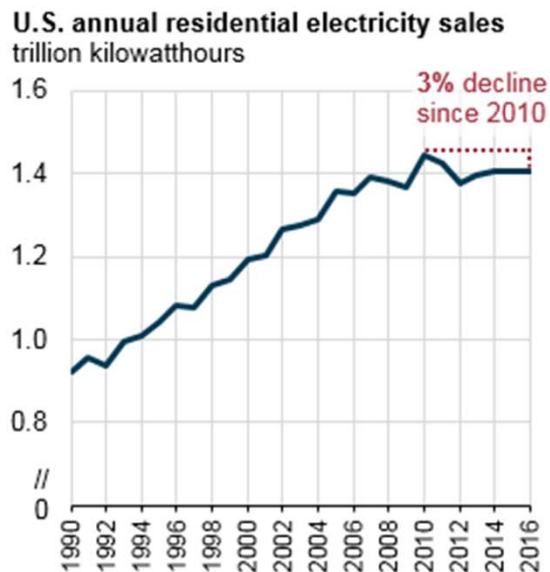


California Independent System Operator (CAISO) average net electric load
last week of March
gigawatts

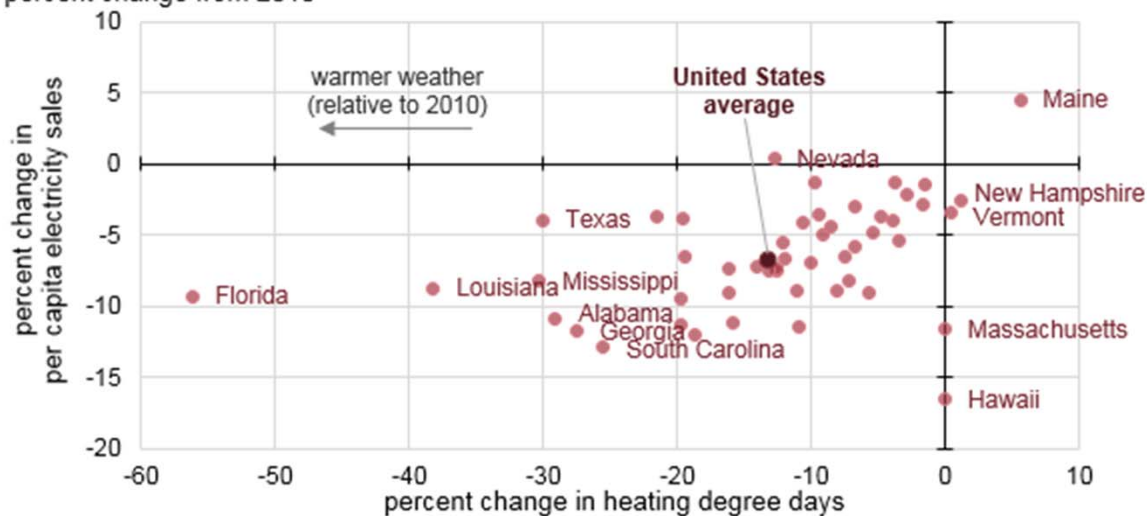




Per Capita Residential Electricity Sales in the U.S. have fallen since 2010

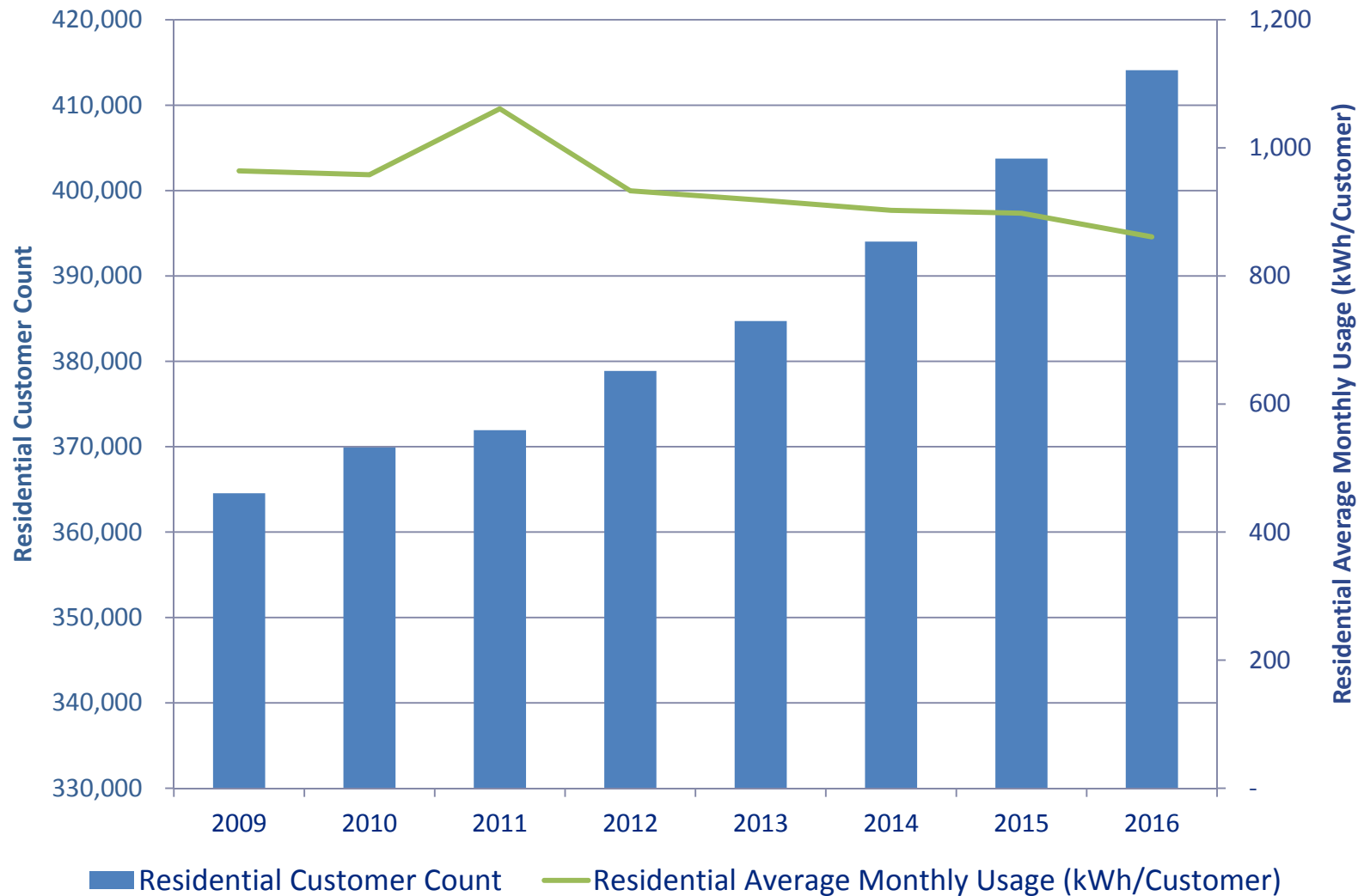


Changes in electricity sales per capita and heating degree days (2010 and 2016)
percent change from 2010





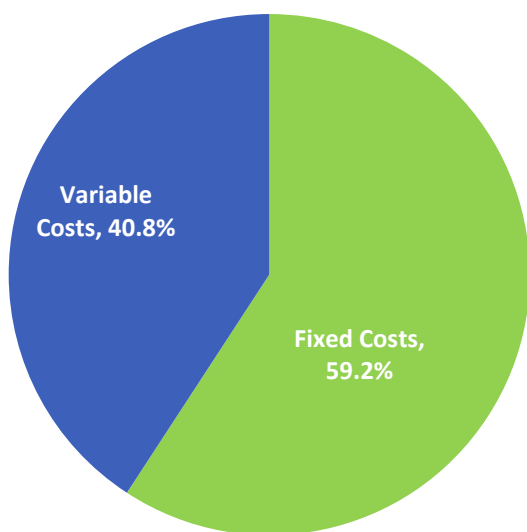
Residential Customer Count Steadily Increasing, Average Residential Use Declining



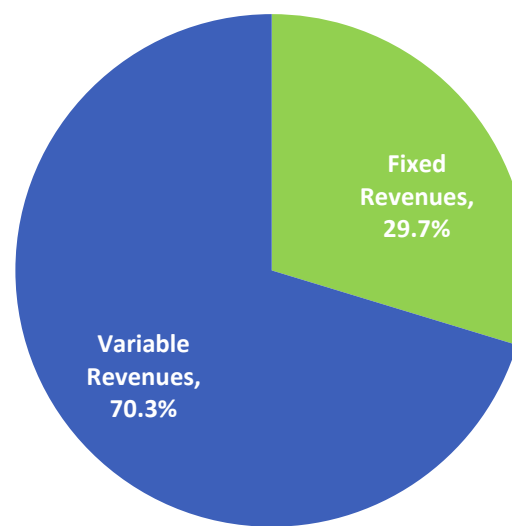


Cost Structure & Cost Recovery

**Costs
FY 2016**



**Revenue
FY 2016**

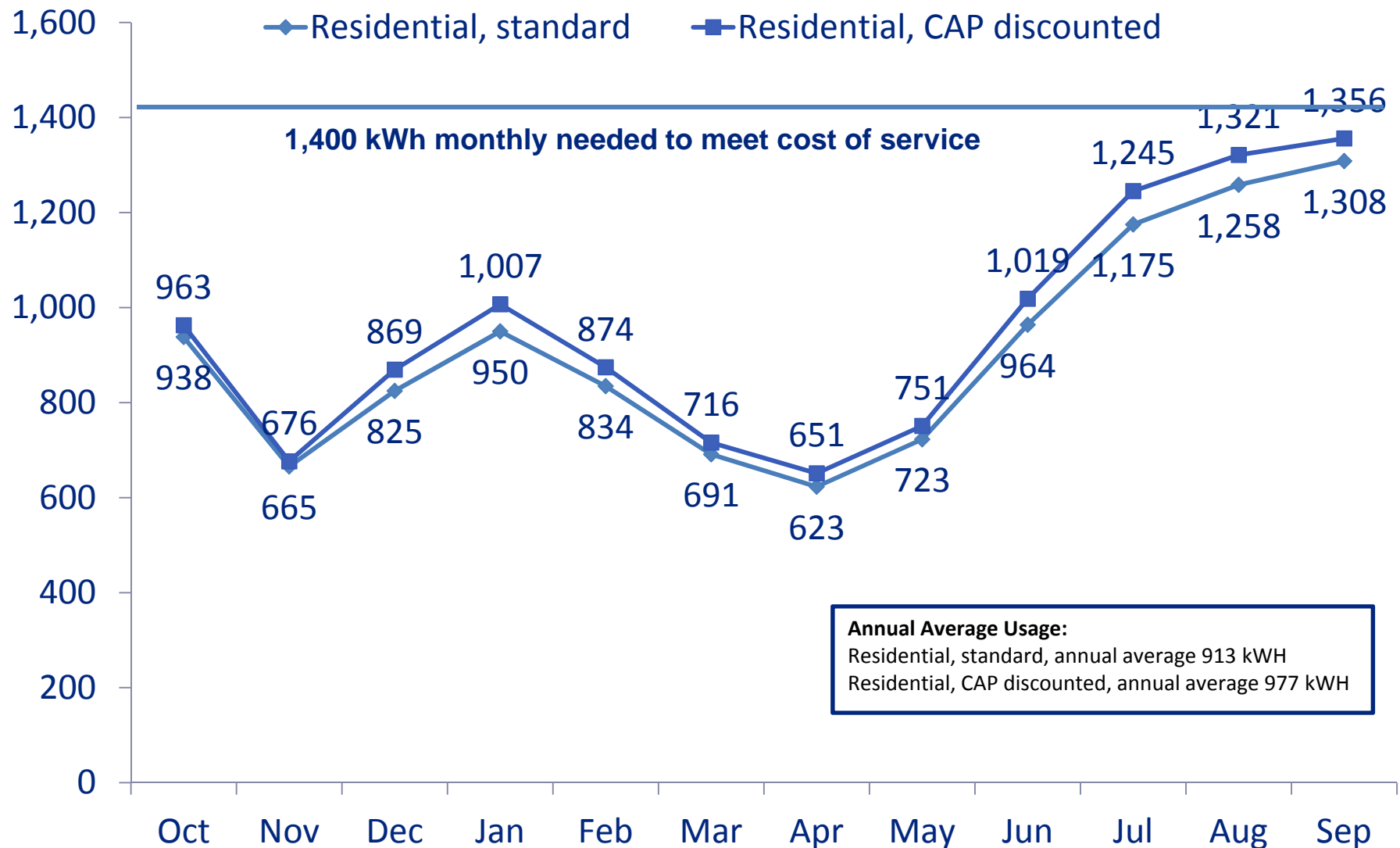


Fundamental mismatch between fixed & variable costs and revenues. Low fixed cost recovery contributes to revenue instability. Declining consumption aggravates long-term stability.



Fixed Cost Recovery Not Sustainable

Austin Energy Monthly Average Residential Sales, FY2014





Opportunities and Challenges

- Decreasing load with current fixed cost structure will result in higher rates
 - Growth of customers increasing fixed costs
 - Electric vehicles will drive new load while distributed generation will decrease load
 - Residential customer charge of \$10/month is well below cost of service
- Software as a Service (SAS) is becoming industry norm
 - Ensures AE software is supported and current
 - Decreases debt and capital expenses but increases operating expenses
- Mobility Bond projects will require significant infrastructure relocation
 - 5-Year CIP does not yet include specific projects associated with Mobility Bond
 - Utility relocations or undergrounding – funding comes from rates
- Standard & Poor's inclusion of PPA's as imputed debt impacts rates
 - Base rate increases may be needed to maintain AA credit rating
- Growth in OSER requires increased commercial paper capacity
 - CP increased from \$50m to \$75m to meet growing customer demand
 - Provides load shifting with cost-effective thermal energy storage
- Retirement of Decker and FPP may significantly reduce General Fund Transfer



Budget FY 2018 Schedule

- August 2 - Budget work session #1
 - » Proposed Budget available to the public
- August 9 - Budget work session #2
 - » Department Presentations on select topics
- August 14 - Budget work-session with EUC
- August 16 - Budget work session #3
 - » Council deliberations on select topics
- August 17 - Public Hearing on Utility rates
- August 23,30 - Budget work sessions #4 & #5 – no set agenda
- August 31 – Budget/Tax Rate Hearing
 - » AE publishes final proposed PSA rate
- September 11-13 - Budget readings and adoption