



# Denton Municipal Electric

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FY 2017-18 Budget Presentation

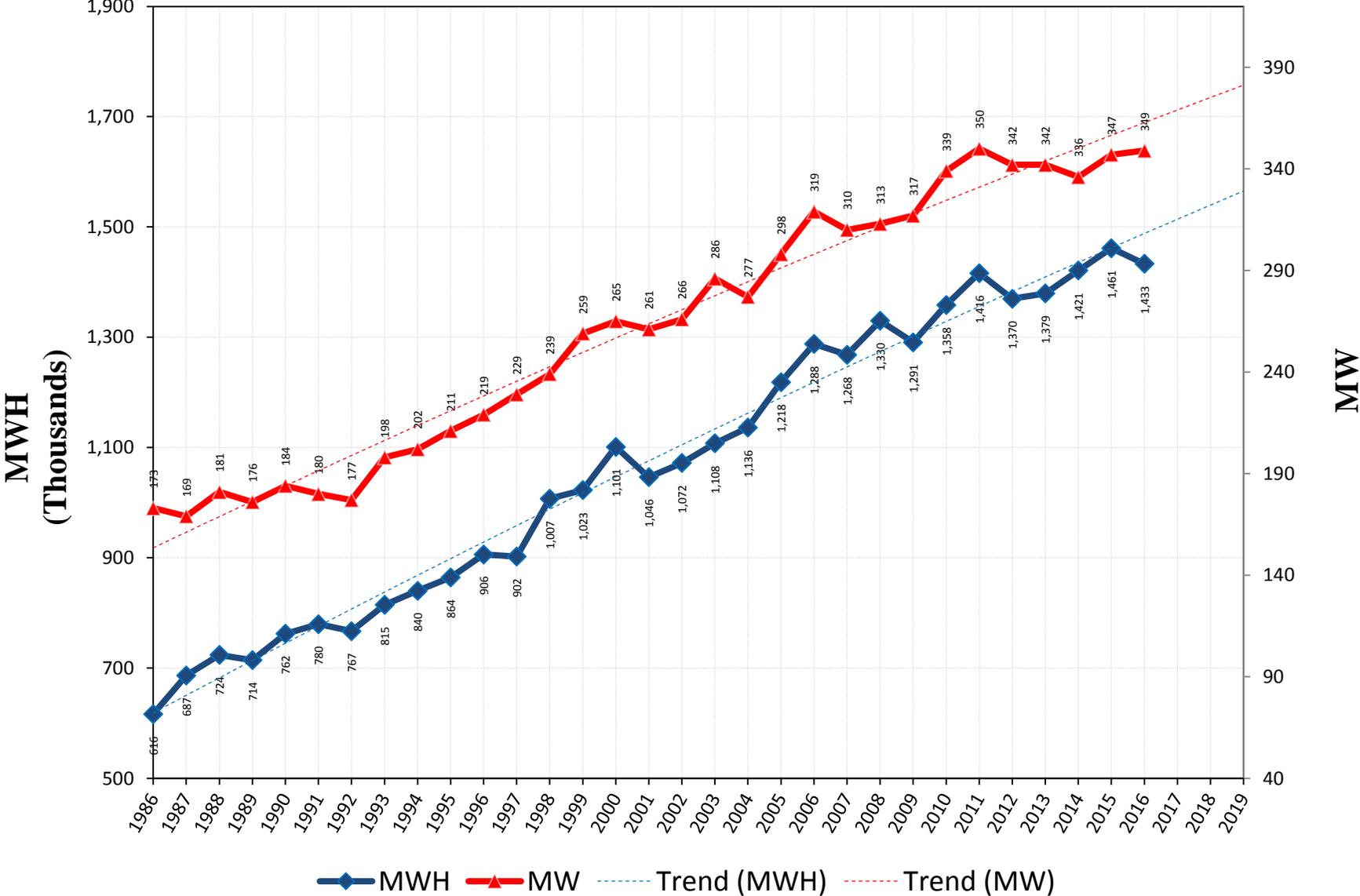


# Denton Municipal Electric Cost Containment Strategies

- Filling five existing vacancies in Engineering with Engineering Consultants
- Eliminated two management positions
- Increased budget for Salary Savings to \$308,000 to recognize position vacancies and turnover potential
- Reduced Debt Service \$1.2 million in FY 2017-18 as a result of lower interest rates
- Internally developed four software packages for improved EMO operations
- Implementation of Workforce Management System to facilitate move to paperless environment

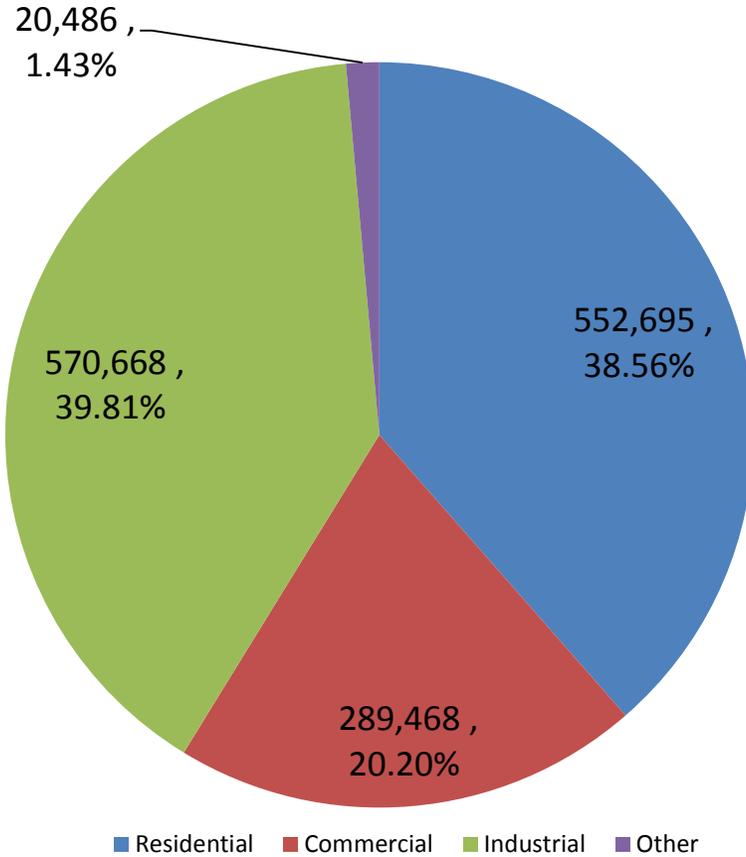


# DME Annual Peak Demands and Energy with Trends, 1986 to 2016

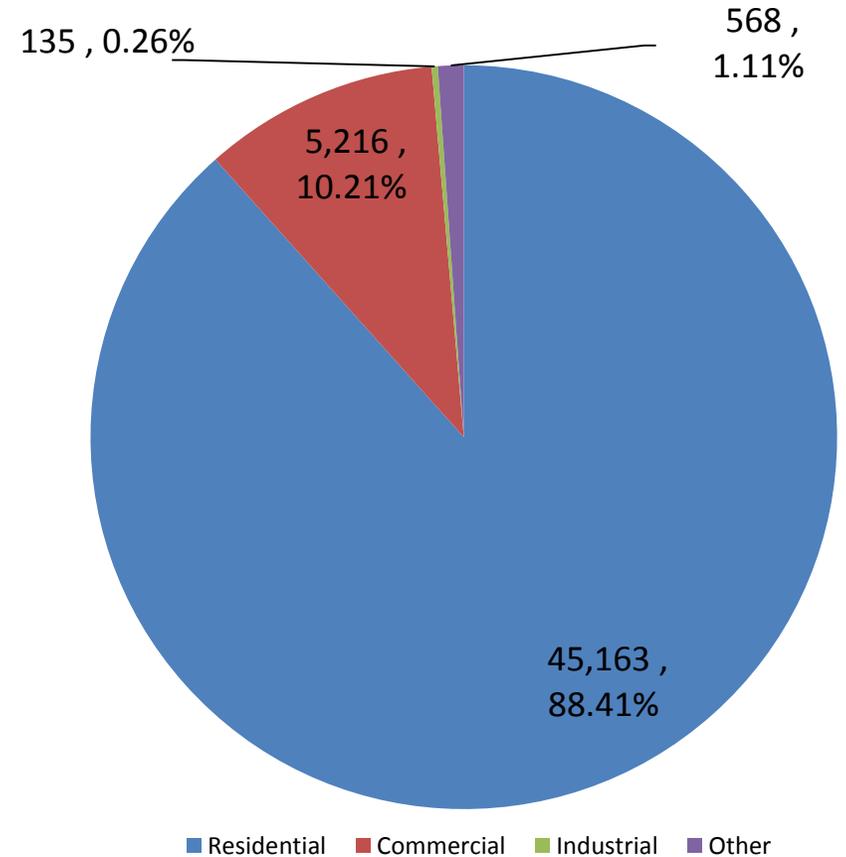


# Denton Municipal Electric MWh vs. Meters

## FY 15-16 Electric MWh by Category



## FY 15-16 Electric Meters by Category



# Denton Municipal Electric Growth Factors

	2010	2016	Growth
Customers	45,174	51,085	13.1%
Annual Rate Revenue (\$000)	110,757	144,487	30.5%
Active Substations	14	17	21.4%
Feeders	86	112	30.2%
Outage Events	714	590	-17.4%
Transmission & Distribution Capital Projects (\$000)	\$30,739	\$112,118	274.1%



# Denton Municipal Electric CIP Definitions

In addition to DME's governance structure, the utility is regulated by these state and federal agencies. FERC, NERC, and TRE ensure compliance of utilities (such as DME) that own and operate transmission systems. ERCOT and the PUCT are responsible for the integrity of the state-wide power grid.

- FERC – Federal Energy Regulatory Commission – Requires DME to conduct the 715 study, which helps direct DME's efforts related to the reliability of its transmission system.
- NERC – North American Electric Reliability Corporation – Responsible for the enforcement of reliability standards set by FERC.
- TRE – Texas Reliability Entity – Has delegated authority from NERC to monitor compliance with reliability standards.
- PUCT – Public Utility Commission of Texas – Has the authority to review and approve rate of return for transmission projects.
- ERCOT – Electric Reliability Council of Texas – Manages the flow of electric power to 24 million Texas customers representing approximately 90% of the state's electric load and about 75% of the Texas land area.



# DME Capital Improvement Plan Budget by Fiscal Year (In Millions)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	Total
Distribution NEW	\$15.5	\$15.9	\$15.9	\$8.0	\$10.5	\$65.9
Distribution Replacement	\$27.1	\$30.5	\$21.5	\$17.9	\$15.4	\$112.5
Transmission NEW	\$30.4	\$34.0	\$13.3	\$17.6	\$28.3	\$123.6
Transmission Replacement	\$27.7	\$13.7	\$4.9	\$10.2	\$10.3	\$66.8
Distribution Total	\$42.7	\$46.5	\$37.4	\$25.9	\$25.9	\$178.4
Transmission Total	\$58.1	\$47.7	\$18.2	\$27.8	\$38.6	\$190.4
Grand Total	\$100.8	\$94.2	\$55.6	\$53.7	\$64.5	\$368.8

# DME CIP Budget & Actual Expenditures by Fiscal Year (In Millions)

Fiscal Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Total
FY 2011-12	\$49.9	\$33.1	\$27.3	\$33.2	\$28.5							\$171.8
FY 2012-13		84.6	84.9	59.4	42.1	31.2						302.2
FY 2013-14			113.5	88.9	77.7	47.0	38.8					365.9
FY 2014-15				105.4	92.3	86.3	57.0	45.0				385.9
FY 2015-16					105.3	89.3	85.8	68.0	54.4			402.8
FY 2016-17*						204.1	215.1	81.0	84.7	62.8		647.7
FY 2017-18							100.8	94.2	55.6	53.7	64.5	368.8

Actual Spent Per Year	\$19.4	\$31.8	\$47.5	\$64.1	\$65.2							\$228.0
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\*Includes \$92 Million and \$128 Million for DEC in FY 2016-17 and FY 2017-18, respectively

# DME CIP Budget & Actual Expenditures by Fiscal Year Without Denton Energy Center (In Millions)

Fiscal Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Total
FY 2011-12	\$49.9	\$33.1	\$27.3	\$33.2	\$28.5							\$171.8
FY 2012-13		84.6	84.9	59.4	42.1	31.2						302.2
FY 2013-14			113.5	88.9	77.7	47.0	38.8					365.9
FY 2014-15				105.4	92.3	86.3	57.0	45.0				385.9
FY 2015-16					105.3	89.3	85.8	68.0	54.4			402.8
FY 2016-17						112.1	87.1	81.0	84.7	62.8		427.7
FY 2017-18							100.8	94.2	55.6	53.7	64.5	368.8

Actual Spent Per Year	\$19.4	\$31.8	\$47.5	\$64.1	\$65.2							\$228.0
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**2018-2022 Capital Improvements Plan  
Cash Requirements - Electric**

<b>Group</b>	<b>Assignment Categories</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Total</b>
001	AUTOMATED METER READING	\$ 1,863,414	\$ 1,933,948	\$ 2,007,305	\$ 2,083,448	\$ 2,162,637	\$ 10,050,752
003	BUILDING CONSTRUCTION	300,000	4,080,000	4,125,000	-	-	8,505,000
007	COMMUNICATIONS EQUIPMENT	421,000	335,000	335,000	335,000	335,000	1,761,000
008	CONTINGENCY	600,000	600,000	600,000	600,000	600,000	3,000,000
012	DISTRIBUTION SYSTEM UPGRADE	500,000	-	-	-	-	500,000
013	DISTRIBUTION SUBSTATIONS	11,252,000	11,422,000	3,972,000	2,439,000	2,262,000	31,347,000
014	DISTRIBUTION TRANSFORMERS	3,191,400	3,345,050	3,505,962	3,675,140	3,852,595	17,570,147
019	FEEDER EXTENSIONS & IMPROVEMENTS	15,643,465	14,440,395	12,341,000	7,565,000	7,089,640	57,079,500
025	NEW RESIDENTIAL&COMMERCIAL	6,368,552	6,689,000	7,022,000	7,355,000	7,705,000	35,139,552
027	OFFICE FURN/COMPUTER/EQUIPMENT	50,000	-	-	-	-	50,000
028	OVER TO UNDER CONVERSIONS	350,000	368,000	386,000	405,000	425,000	1,934,000
032	POWER FACTOR IMPROVEMENT	213,395	216,000	227,000	237,000	248,000	1,141,395
040	STREET LIGHTING	408,981	431,000	453,000	476,063	500,213	2,269,257
043	TOOLS & EQUIPMENT	120,000	91,000	92,000	93,000	94,000	490,000
050	VEHICLES	1,388,435	2,527,530	2,315,746	643,000	669,225	7,543,936
	<b>DISTRIBUTION TOTAL</b>	<b>\$ 42,670,642</b>	<b>\$ 46,478,923</b>	<b>\$ 37,382,013</b>	<b>\$ 25,906,651</b>	<b>\$ 25,943,310</b>	<b>\$ 178,381,539</b>
045	TRANSMISSION LINES	27,980,000	19,480,000	10,540,000	17,600,000	23,400,000	99,000,000
046	TRANSMISSION SUBSTATION	30,135,000	28,195,000	7,690,000	10,230,000	15,150,000	91,400,000
	<b>TRANSMISSION TOTAL</b>	<b>\$ 58,115,000</b>	<b>\$ 47,675,000</b>	<b>\$ 18,230,000</b>	<b>\$ 27,830,000</b>	<b>\$ 38,550,000</b>	<b>\$ 190,400,000</b>
	<b>Grand Totals</b>	<b>\$ 100,785,642</b>	<b>\$ 94,153,923</b>	<b>\$ 55,612,013</b>	<b>\$ 53,736,651</b>	<b>\$ 64,493,310</b>	<b>\$ 368,781,539</b>
	Aid in Construction	819,000	860,000	903,000	948,000	995,000	4,525,000
	C.O.	97,858,207	90,075,393	51,701,267	51,452,651	62,135,085	371,712,603
	Revenue	2,108,435	3,218,530	3,007,746	1,336,000	1,363,225	11,033,936
	Utility Bonds	-	-	-	-	-	-
	<b>Grand Totals</b>	<b>\$ 100,785,642</b>	<b>\$ 94,153,923</b>	<b>\$ 55,612,013</b>	<b>\$ 53,736,651</b>	<b>\$ 64,493,310</b>	<b>\$ 368,781,539</b>
	<b>Bond Sale</b>	<b>\$ 54,000,000</b>	<b>\$ 45,000,000</b>	<b>\$ 33,000,000</b>	<b>\$ 35,000,000</b>	<b>\$ 41,000,000</b>	<b>\$ 208,000,000</b>



# Denton Municipal Electric Revenue / Expenditures

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- **1% Rate Decrease**
  - Zero base rate increase
  - Transmission Cost Recovery Factor (TCRF) increasing slightly (0.00067) to cover increase in transmission expenses
  - Energy Cost Adjustment (ECA) decreasing 1%
- DME Ten Year Management Study required by City Charter \$500,000



# Denton Municipal Electric Revenues Definitions

- “Base rate” refers to the portion of the electric rate that pays for the delivery of power, such as constructing and maintaining the electric system.
- “TCRF” stands for transmission cost of recovery factor, and refers to the portion of the electric rate that pays other entities across Texas for constructing transmission infrastructure.
- “ECA” stands for energy cost adjustment, and refers to the portion of the electric rate that pays for power purchases.
- “TMPA coverage return” refers to the working capital that is provided to and returned from TMPA each year by the four member cities.
- “TCOS” stands for transmission cost of service, and refers to the payment DME receives from other entities across Texas for constructing transmission infrastructure.



# Denton Municipal Electric Budget Highlights (in Millions)

Revenues	FY 2015-16 Actuals	FY 2016-17 Budget	FY 2016-17 Estimate	FY 2017-18 Proposed
Base Rate Revenues	\$82.7	\$91.5	\$92.2	\$91.0
TCRF Revenues	4.7	4.6	4.2	5.6
ECA Revenues	56.8	54.8	54.8	51.1
<b>Total Rate Revenues</b>	<b>\$144.2</b>	<b>\$150.9</b>	<b>\$151.2</b>	<b>\$147.7</b>
TMPA Coverage Return	7.4	8.6	8.5	0.8
TCOS Revenue	12.0	12.7	16.8	20.2
Other Revenues	11.4	4.8	6.0	5.0
<b>Total</b>	<b>\$175.0</b>	<b>\$177.0</b>	<b>\$182.5</b>	<b>\$173.7</b>



# Denton Municipal Electric Expenditures Definitions

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“Purchased Power & Fuel” refers to DME’s expenses related to purchasing wholesale electric power and purchasing fuel for the purpose of generating wholesale power. This cost is projected to drop as the Denton Energy Center reallocates costs from this category to personal services and debt service.

“Transmission of Power” refers to the cost of transmitting electricity through transmission lines that are not owned by DME.

“Personal Services” refers to the cost of staffing DME. This cost is projected to rise as some functions (including generating power) are accomplished by DME staff.



# Denton Municipal Electric Expenditures Definitions

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“Operations & Maintenance” reflects the cost of keeping Denton’s electric system operational. Examples include vegetation management and replacing aging or damaged utility poles.

“Return on Investment & Franchise Fee” are paid to the City of Denton based on a percentage of DME’s revenue.

“Debt Service” refers to the payments DME makes against its debts.

“Cost of Service” are payments made by DME to other City of Denton departments for the services those departments provide to the utility.

“Fixed Assets” refer to expenses for tools and equipment above \$5,000 that are used to maintain the electric system.



# Denton Municipal Electric Budget Highlights (in Millions)

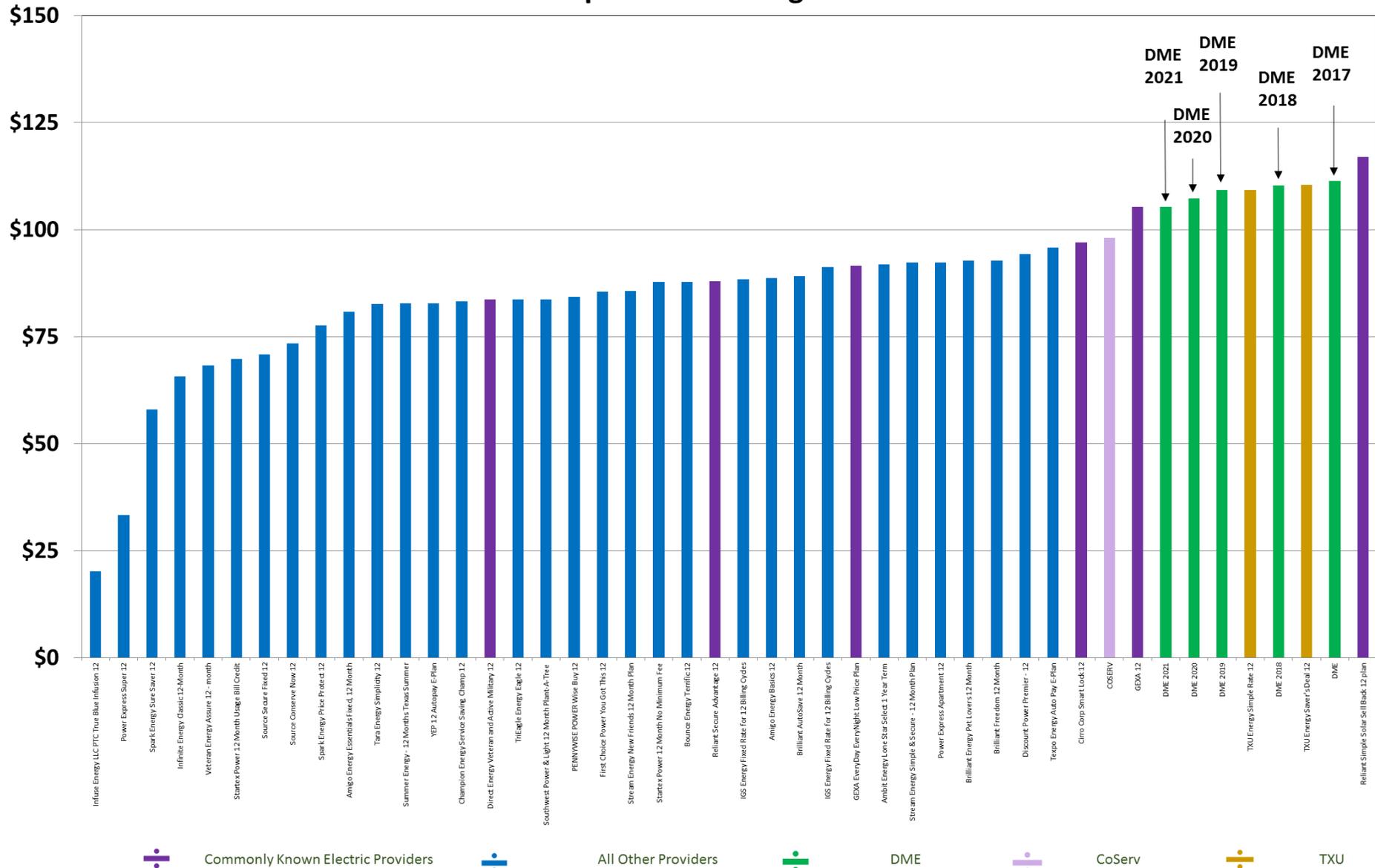
Expenses	FY 2015-16 Actuals	FY 2016-17 Budget	FY 2016-17 Estimate	FY 2017-18 Proposed
Purchased Power & Fuel	\$73.9	\$80.9	\$92.9	\$79.0
Transmission of Power	4.1	4.5	4.8	5.6
Personnel Services	15.0	18.5	19.5	19.8
Operations & Maintenance	7.4	14.3	14.0	16.2
ROI & Franchise Fee	12.1	13.4	13.8	14.0
Debt Service	29.1	29.6	29.1	34.4
Cost of Service	11.6	11.6	11.7	11.4
Fixed Assets	0	0.7	0.7	0.7
<b>Total</b>	<b>\$153.2</b>	<b>\$173.5</b>	<b>\$186.5</b>	<b>\$181.1</b>



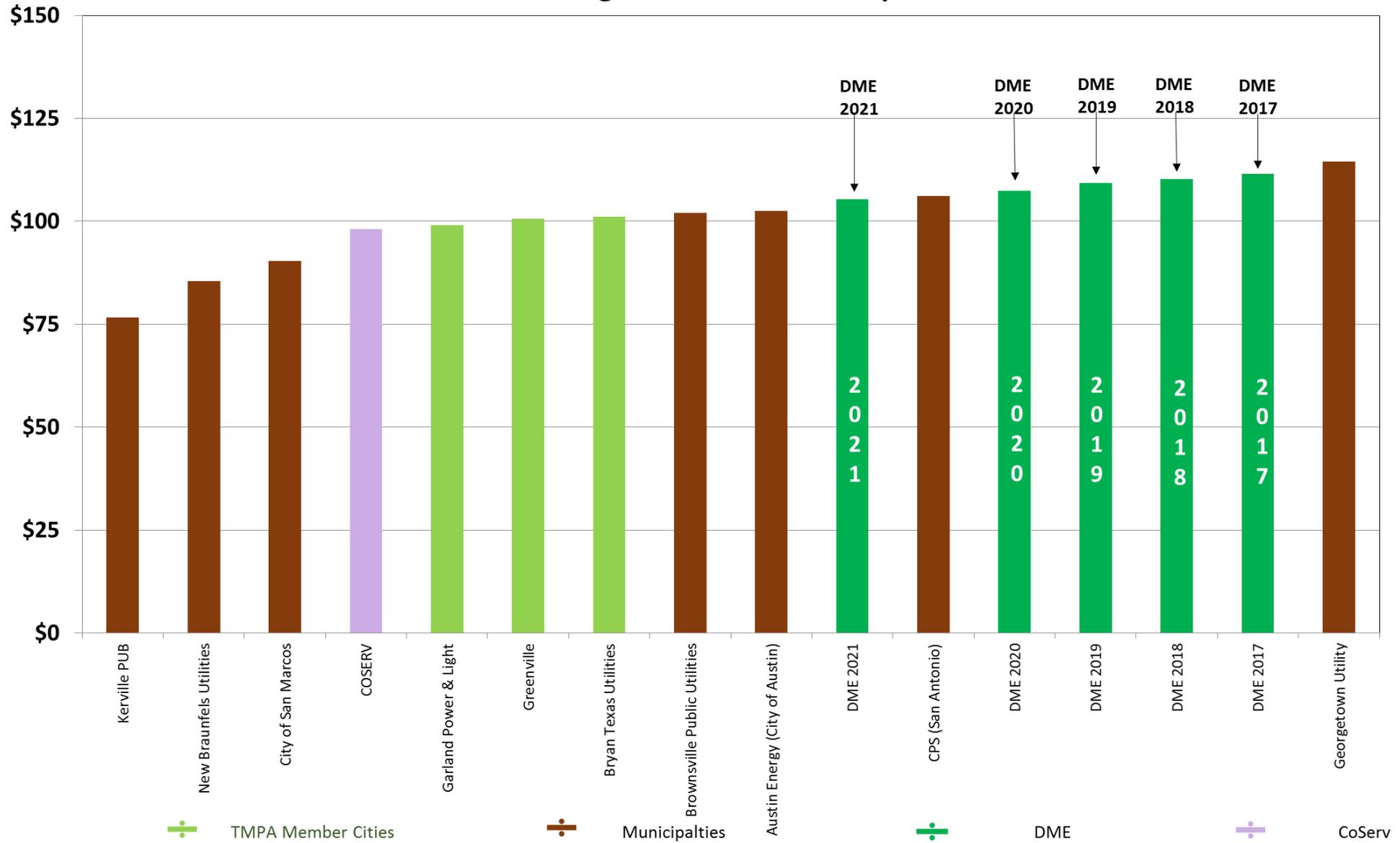
# DME 5-Year Forecast

	<b>Actual 2016</b>	<b>Budget 2017</b>	<b>Estimate 2017</b>	<b>Proposed 2018</b>	<b>Projected 2019</b>	<b>Projected 2020</b>	<b>Projected 2021</b>	<b>Projected 2022</b>
<b>Revenues</b>								
Base Rate Revenues	\$82.7	\$91.5	\$92.2	\$91.0	\$96.1	\$97.3	\$98.5	\$99.7
TCRF Revenues	4.7	4.6	4.2	5.6	6.5	7.6	8.9	8.9
ECA Revenues	56.8	54.8	54.8	51.1	43.6	40.1	36.4	36.9
Rate Revenues	\$144.2	\$151.0	\$151.2	\$147.7	\$146.2	\$145.0	\$143.8	\$145.5
Non-rate Revenues	30.8	26.0	31.4	26.0	36.2	31.9	34.8	35.9
Subtotal	\$175.0	\$177.0	\$182.5	\$173.7	\$182.4	\$177.0	\$178.6	\$181.3
Planned Use of Reserves	-	-	4.0	7.5	-	-	-	-
<b>Total Revenues</b>	<b>\$175.0</b>	<b>\$177.0</b>	<b>\$186.5</b>	<b>\$181.1</b>	<b>\$182.4</b>	<b>\$177.0</b>	<b>\$178.6</b>	<b>\$181.3</b>
<b>Expenditures</b>								
Purchased Power & Fuel	\$74.0	\$80.8	\$92.9	\$79.0	\$34.0	\$34.4	\$36.0	\$37.2
Transmission of Power	4.1	4.5	4.8	5.6	6.5	7.6	8.9	8.9
Operations & Maintenance	22.3	32.8	33.5	36.0	39.4	41.3	42.9	44.5
Cost of Service	11.6	11.6	11.7	11.4	11.9	12.3	12.7	13.1
ROI & Franchise Fee	12.1	13.4	13.8	14.0	15.3	14.9	15.0	15.2
Debt Service	29.1	29.6	29.1	34.4	39.0	55.9	57.6	59.2
Debt Defeasance	-	-	-	-	28.6	-	-	-
Fixed Assets	-	0.7	0.7	0.7	0.7	0.7	0.7	0.7
<b>Total Expenditures</b>	<b>\$153.2</b>	<b>\$173.4</b>	<b>\$186.5</b>	<b>\$181.1</b>	<b>\$175.4</b>	<b>\$167.1</b>	<b>\$173.8</b>	<b>\$178.8</b>
<b>Net Income</b>	<b>\$21.8</b>	<b>\$3.6</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$7.0</b>	<b>\$9.9</b>	<b>\$4.8</b>	<b>\$2.6</b>
Total Rate Increase/Decrease	0%	0%	0%	-1%	-2%	-2%	-2%	0%
<b>RESERVE BALANCES</b>								
Working Capital + Operating Reserve + TCRF and ECA Over/Under Collection	\$76.0	\$53.0	\$72.0	\$64.5	\$71.5	\$81.4	\$86.2	\$88.8
Number of Working Days (60-75 days)	181	112	141	130	149	178	181	181
Debt Coverage Ratio	2.17	1.44	1.48	1.19	1.57	1.44	1.34	1.30

# Power to Choose April 2017 Average Annual Bill for 1000 kWh



## Power to Choose Average Annual Bill as of April 2017 for 1000 kWh





# Denton Municipal Electric

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## Questions / Comments

