



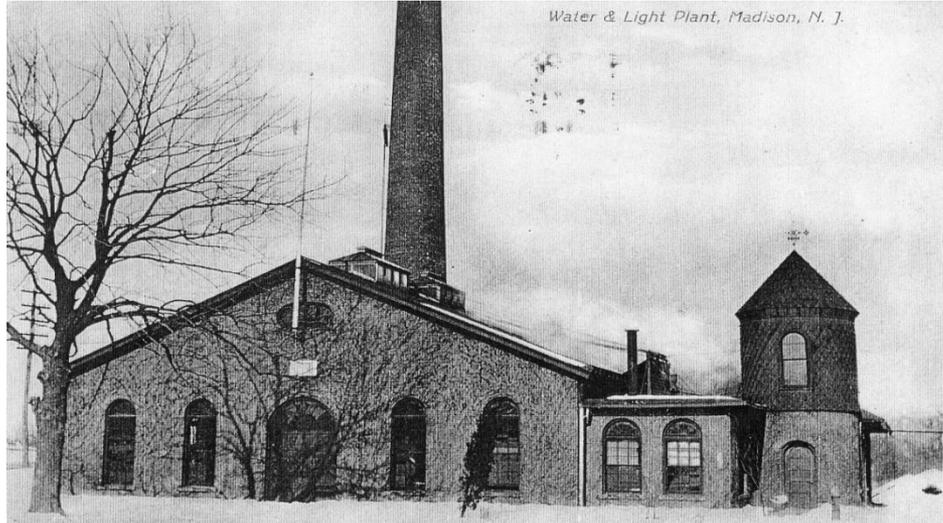
Borough of Madison



Electric Utility Presentation, Oct 24, 2016



History



Then...
(late 1800's)

Now...





Needs Based Rebate



A needs based rebate was established by Council in 2014 with eligible residents receiving a one-time credit on their electric bill. The program has been administered by the Clerk's Office and the Utility Billing Office and the results are as follows:

<u>Year</u>	<u># of Applications</u>	<u>Dollar Amount*</u>
2014	355	\$35,500
2015	273	\$27,300
2016	326	\$48,900

* In 2014 and 2015, the rebate amount each eligible resident received was \$100. In 2016 that amount was increased to \$150. **The Program is still available until December 1st!**



Weather



It was a hot summer...

International Business Times

NATIONAL

NYC Heat Wave 2016: High Temperatures In New York City Result In Record High Power Usage

BY ALEX GAROFALO  ON 08/15/16 AT 4:43 PM

Scorching temperatures kept most New Yorker inside all weekend and, according to Con Edison, those New Yorkers had the air conditioning on full blast.

Con Edison, the power company that services New York City, is reporting record power usage over the weekend after a [heat wave](#) swept through the East Coast and New York region. Three-digit temperatures, including the hottest day of the summer in New York City, had residents turning up the air conditioner and sending the power usage surging.

Peak customer demand for power reached an all-time weekend high of 11,855 megawatts at 4 p.m. on Saturday, according to [Con Edison](#). The previous record for a weekend day was 11,533 megawatts, set at 3 p.m. on July 23, 2011. Saturday was also the hottest day of the year so far in New York City, with temperatures reaching a sizzling 96 degrees. To make matters worse, the humidity made the temperature feel like 110 degrees, according to [CBS2 New York](#).

The New York Times |

N.Y. / REGION

It Adds Up: This Was New York's Hottest Summer

By PATRICK MCGEEHAN AUG. 31, 2010

With one final, fitting blast of 96-degree heat on Tuesday, the summer of 2010 went down in the National Weather Service's record books as the hottest ever in New York City.

Hotter than the previous high of 77.3 degrees set in 1966, when more than 1,100 deaths were attributed to heat that repeatedly exceeded 100 degrees. Hotter than 2006, when a heat wave set off a blackout in northern Queens that left more than 100,000 residents without power for days.

But in this record-breaking season — defined by the Weather Service as June through August — there was no cataclysm, no singular event that was likely to define a three-month period when the temperature averaged 77.8 degrees. Instead, the summer of 2010 might be more properly measured in more subtle ways.

For Sal Medina, a newsstand operator from the Bronx, it could be measured by the number of frozen water bottles that he slipped into his pants this week to stay cool (three).

For John Natuzzi, it could be all the ice cubes used during the first day of the United States Open tennis tournament on Monday (80,000 pounds).

But 2010 still ranks as the hottest summer on record.



Data Collection



- The next four slides show the monthly data collection that the Finance Department has compiled and will now continue to track.
 - Monthly \$\$ Receipts
 - Monthly Power Purchase Costs
 - Monthly Units of Electricity (kWh) purchased
 - Monthly Units of Electricity (kW) billed to customers
- This data will be the basis of easier to read quarterly reports that will be issued to Council going forward.
- We are still refining this data collection. Please bear with us.

Data: Monthly \$ Receipts



Each monthly figure is compilation of the daily deposits made by the utility billing department.

Borough of Madison
Electric Cash Receipts as tracked monthly by Finance Department
for 2006-2016

	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016
Jan	\$ 1,289,332	\$ 1,214,285	\$ 1,328,994	\$ 1,284,221	\$ 1,573,878	\$ 1,884,422	\$ 1,994,860	\$ 1,731,742	\$ 1,957,650	\$ 1,567,196	\$ 1,584,881
Feb	1,074,998	968,700	1,063,275	1,554,375	1,553,054	1,363,627	1,417,366	1,679,690	1,488,273	1,766,123	1,673,154
Mar	1,144,256	1,150,213	1,462,463	1,811,820	1,873,772	2,145,607	1,966,260	1,931,529	2,394,141	2,124,569	1,967,540
Apr	1,033,315	1,118,386	1,222,740	1,268,267	1,641,017	1,562,697	1,588,454	1,731,730	1,547,641	1,429,065	1,719,922
May	1,047,957	1,205,551	1,038,709	1,496,111	1,475,170	1,701,067	1,685,669	1,761,300	1,749,493	1,724,868	1,539,922
Jun	1,138,013	1,340,813	1,442,044	1,637,632	2,214,919	1,931,759	1,628,113	1,599,820	1,786,929	1,786,235	1,716,364
Jul	1,113,044	1,418,196	1,382,279	1,646,487	2,285,035	1,869,417	2,148,710	2,182,794	1,968,872	2,112,412	2,065,711
Aug	1,479,506	1,392,985	1,710,596	1,843,702	2,571,032	1,781,833	2,570,765	2,695,635	2,097,552	2,215,120	2,689,525
Sep	1,526,442	1,460,600	1,706,990	2,016,431	2,432,340	2,329,350	1,930,662	2,288,469	2,148,338	2,352,899	2,702,905
Oct	1,483,371	1,528,994	1,592,784	1,868,877	1,897,642	2,485,245	2,300,379	2,307,115	2,000,000	2,395,549	
Nov	1,078,162	1,385,358	1,196,155	1,502,385	1,959,582	1,632,911	1,737,698	1,446,054	1,564,866	1,705,774	
Dec	1,023,055	1,147,389	1,475,792	1,605,250	1,706,213	1,663,348	1,724,917	1,821,286	1,828,414	1,686,684	
Total	\$ 14,431,451	\$ 15,331,470	\$ 16,622,821	\$ 19,535,558	\$ 23,183,654	\$ 22,351,284	\$ 22,693,853	\$ 23,177,164	\$ 22,532,169	\$ 22,866,494	

- Keep in mind, the payments are received at least 30 days after consumption. A customer with a bill due date of October 15 is paying for electricity that was from August 16 - September 15. Delinquent payments further increase the gap between consumption and payment.

Electric Rates have not increased since January, 2010.

Data: Monthly Power Costs

Borough of Madison
Monthly Electric Power Purchase Costs paid by Borough as tracked
in Borough's Purchasing / Accounting System
for 2009-2016

	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016
Jan							\$ 124,684	\$ 149,528
Feb	20,983	1,404,072	1,179,886	1,177,727	1,209,687	884,942	897,272	882,907
Mar	1,236,472	1,252,889	1,211,480	1,066,821	1,165,573	1,467,889	842,783	841,379
Apr	1,060,827	1,292,357	1,269,302	1,071,572	1,210,741	1,687,889	1,025,575	844,586
May	17,499	1,223,732	1,161,436	1,027,455	1,112,209	1,493,687	808,422	766,341
Jun	1,119,513	1,360,195	1,283,675	1,183,021	1,145,549	1,404,942	759,244	825,314
Jul	2,451,161	1,587,556	1,328,527	1,360,617	1,555,318	949,694	1,071,685	880,445
Aug	1,499,079	1,818,076	1,646,114	1,661,341	1,889,913	1,010,159	1,061,943	1,015,510
Sep	2,836,429	1,636,065	1,444,735	1,546,124	1,251,835	1,067,781	1,172,393	1,013,260
Oct	1,349,559	1,395,276	1,267,627	1,287,048	1,189,795	902,376	918,552	
Nov	1,300,372	1,240,031	1,116,924	1,180,879	1,779,518	773,028	740,231	
Dec+	2,646,054	2,219,365	2,181,962	2,320,196	2,230,062	1,494,636	1,583,459	
Total	\$ 15,537,948	\$ 16,429,614	\$ 15,091,669	\$ 14,882,801	\$ 15,740,199	\$ 13,137,024	\$ 11,006,242	

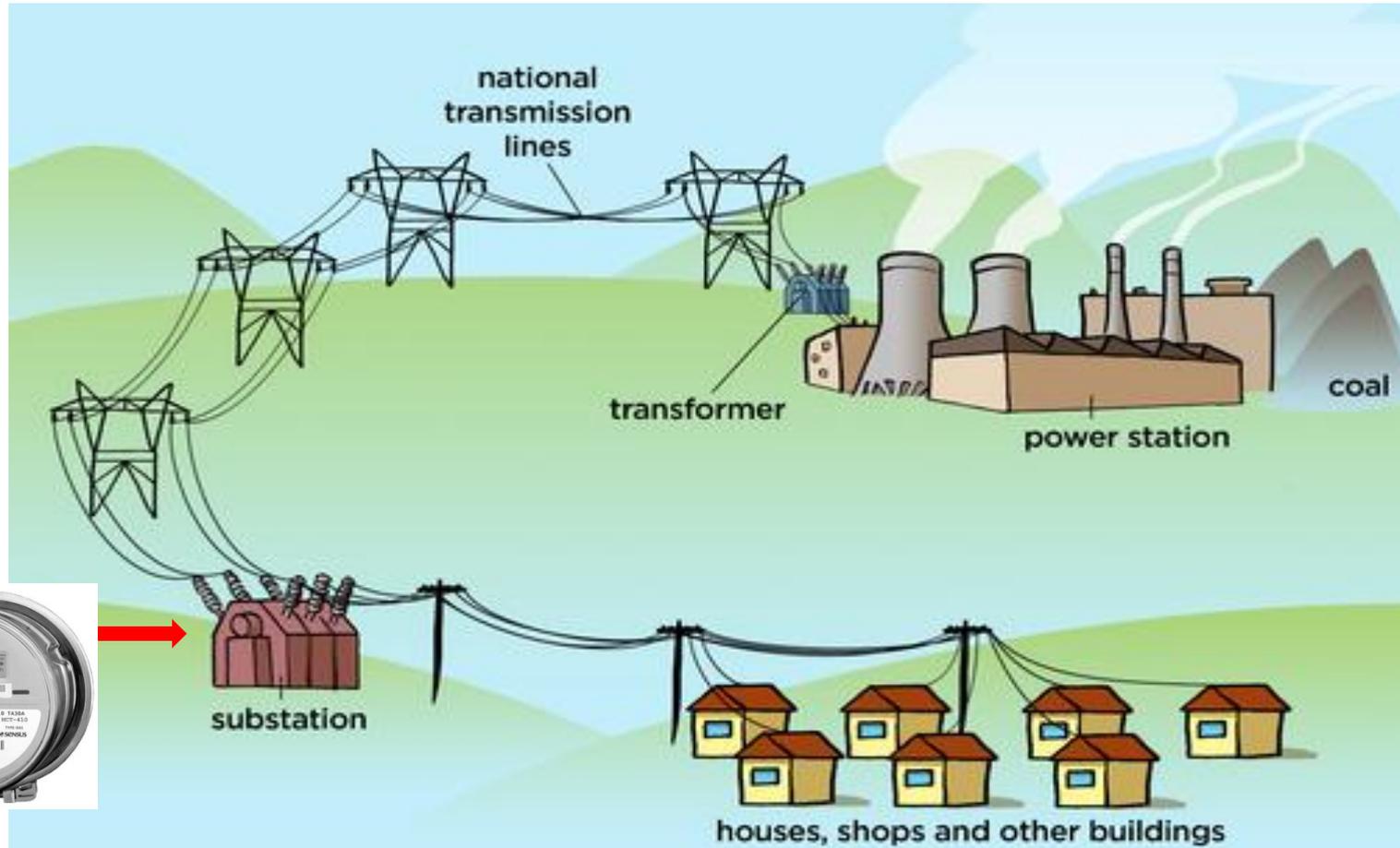
- Most power purchase costs are paid the following month (ie January's bill is due Feb 20th). As such, very few expenses are actually paid in January.
- "Dec+" includes December and all expenses that are related to December that get paid in the following year.



Metering Electricity



The next table shows the kWh (units of electricity) that were purchased and measured thru the Borough's Master Meter which is a meter at our substation that measures all wholesale electricity purchased by the Borough.



Data: kWh Purchased



This table shows the kWh (units of electricity) that were purchased and measured thru the Borough's Master Meter.

Borough of Madison
Monthly Electric kWh purchased as shown on Constellation and PJM Bills
for 2009-2016

	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016
Jan		11,750,638	11,426,905	10,505,045	10,539,364	5,608,456	11,258,000	11,017,000
Feb		10,411,083	10,075,459	9,492,161	9,980,345	11,998,378	10,706,000	10,029,000
Mar		10,551,352	10,288,568	9,433,641	10,270,550	14,153,054	10,542,800	9,650,000
Apr		9,953,127	9,355,810	9,039,028	9,466,749	9,484,989	9,152,900	9,193,800
May		11,318,614	10,595,669	10,626,793	9,791,582	9,810,030	11,175,300	10,424,000
Jun	11,253,982	13,769,512	12,208,427	12,043,946	12,765,139	12,302,000	12,185,000	12,314,600
Jul	12,882,981	16,116,218	15,473,195	15,311,958	16,247,650	14,282,100	14,862,000	15,531,600
Aug	14,636,384	14,193,979	13,345,957	13,860,791	9,261,631	12,502,550	14,598,000	15,744,800
Sep	11,165,893	11,788,535	11,565,051	11,231,321	8,936,630	11,346,000	12,785,800	
Oct	10,640,086	missing data	9,973,530	10,113,891	15,065,916	9,915,100	10,214,000	
Nov	10,101,166	9,915,282	9,592,257	9,780,734	14,825,323	9,858,900	9,745,700	
Dec+	11,676,995	11,509,807	9,563,185	9,932,508	8,754,324	10,814,760	10,483,000	
Total	82,357,487	131,278,147	133,464,013	131,371,817	135,905,203	132,076,317	137,708,500	

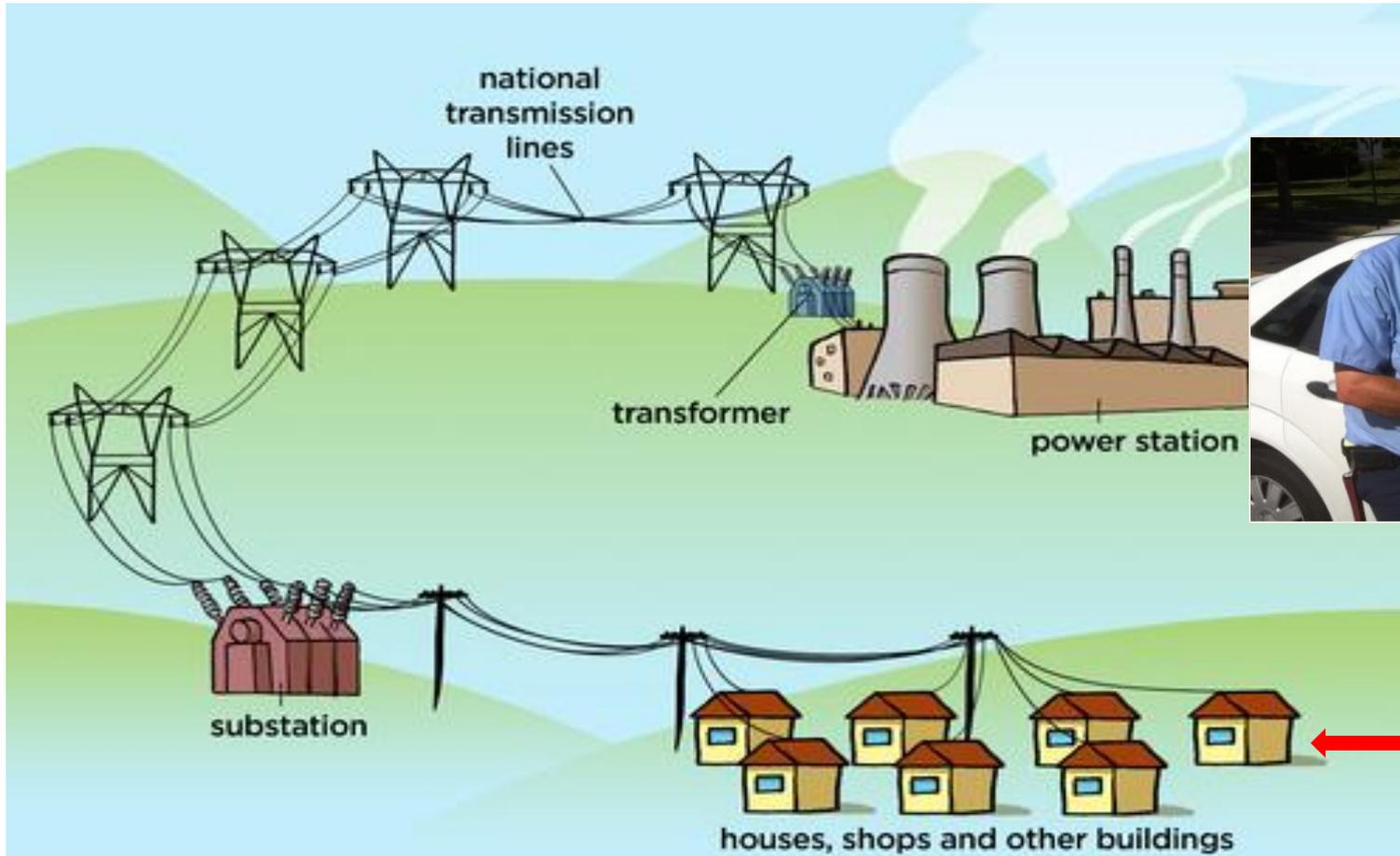
- kWh purchased includes 60 day reconciliation figures.

- Shaded areas represent a time when bills were adjusted because of JCPL metering issues.

Metering Electricity



The next table shows the kWh (units of electricity) that were read monthly by our meter readers on the 6,600+ individual houses, shops and corporations in town. These meters collectively measure the retail electricity SOLD by the Borough.





Data: kWh billed



This table shows the kWh (units of electricity) that were purchased and measured by the 6,600+ electric meters that the Borough reads on a monthly basis.

Borough of Madison
Monthly Electric kWh billed thru the Borough's Utility Billing System
for 2010-2016

	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016
Jan	11,621,055	10,946,779	9,205,597	10,052,705	10,434,170	10,750,187	9,689,468
Feb	11,226,551	10,400,854	9,674,769	10,734,051	11,128,536	9,962,490	9,569,525
Mar	9,550,596	9,084,343	8,866,876	9,176,686	9,119,362	9,897,429	9,621,021
Apr	9,978,860	9,201,136	8,803,974	9,433,377	9,870,569	8,691,929	9,076,707
May	10,711,197	9,221,569	8,725,662	9,173,956	9,588,022	9,025,380	8,326,176
Jun	11,388,707	10,735,057	10,663,855	11,223,282	9,539,856	10,667,723	11,379,001
Jul	12,776,412	12,374,875	13,155,103	14,081,842	11,883,331	12,339,914	11,867,273
Aug	15,425,247	14,054,854	14,309,519	14,048,182	12,669,974	13,938,753	15,452,904
Sep	13,090,369	13,837,550	12,771,183	12,884,258	11,612,156	14,081,276	13,646,301
Oct	10,953,138	9,348,994	9,502,764	9,956,732	9,496,095	10,061,508	
Nov	9,084,182	8,631,882	8,838,012	9,680,314	8,164,818	9,195,803	
Dec	9,496,531	8,864,582	9,609,827	10,277,746	9,341,225	9,079,032	
Total	135,302,845	126,702,475	124,127,141	130,723,131	122,848,114	127,691,424	

- This data shows the consumption the meter readers read and billing staff input to compute customer bills.
- Note, meter books are read daily. A customer in book 15 typically has their meter read on or about the 15th of the month. That reading would include 15 days in the current month and 15 days in the prior month.

Proposed Quarterly Report

Going forward, Council will receive quarterly financial reports.

Borough of Madison Electric Cash Receipts for 2010-2016

	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Estimated 2016 in Budget	Actual 2016
First Quarter	\$ 5,000,704	\$ 5,393,655	\$ 5,378,486	\$ 5,342,961	\$ 5,840,064	\$ 5,457,888	\$ 5,230,000	\$ 5,225,575
Second Quarter	5,331,106	5,195,524	4,902,237	5,092,850	5,084,063	4,940,168	5,015,000	4,976,208
Third Quarter	7,288,407	5,980,601	6,650,137	7,166,898	6,214,762	6,680,431	6,540,000	7,458,141
Fourth Quarter	5,563,437	5,781,504	5,762,994	5,574,455	5,393,280	5,788,007	5,515,000	
Total	\$ 23,183,654	\$ 22,351,284	\$ 22,693,853	\$ 23,177,164	\$ 22,532,169	\$ 22,866,494	\$ 22,300,000	
1st and 2nd Qtr	\$ 10,331,810	\$ 10,589,179	\$ 10,280,722	\$ 10,435,811	\$ 10,924,127	\$ 10,398,056	\$ 10,245,000	\$ 10,201,783

Borough of Madison Electric Power Purchase Costs from Edmunds for 2010-2016

	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Estimated 2016 in Budget	Actual 2016
First Quarter	\$2,656,961	\$2,391,367	\$2,244,548	\$2,375,259	\$2,352,831	\$1,864,738	\$1,840,000	\$1,873,813
Second Quarter	3,876,284	3,714,413	3,282,048	3,468,499	4,586,519	2,593,240	2,740,000	2,436,241
Third Quarter	5,041,697	4,419,377	4,568,081	4,697,066	3,027,634	3,306,021	2,840,000	2,909,215
Fourth Quarter	4,854,672	4,566,512	4,788,124	5,199,374	3,170,039	3,242,242	2,921,000	
Total	\$ 16,429,614	\$ 15,091,669	\$ 14,882,801	\$ 15,740,199	\$ 13,137,024	\$ 11,006,242	\$ 10,341,000	
1st and 2nd Qtr	\$ 6,533,245	\$ 6,105,779	\$ 5,526,596	\$ 5,843,758	\$ 6,939,350	\$ 4,457,979	\$ 4,580,000	\$ 4,310,054

Reminder... Budgeted appropriations stay on the books for a full year after the budget closes. This allows for bills from November and December to be paid in the following year. Unspent appropriations lapse into surplus at the end of the following year. As such, savings on “power purchase costs’ are not realized until the end of the following year.

Proposed Quarterly Report

Going forward, Council will receive quarterly kWh metering reports.

Borough of Madison Electric kWh purchased as shown on Constellation and PJM Bills for 2010-2016

	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016
First Quarter	32,713,073	31,790,932	29,430,847	30,790,259	31,759,888	32,506,800	30,696,000
Second Quarter	35,041,253	32,159,906	31,709,767	32,023,470	31,597,019	32,513,200	31,932,400
Third Quarter	42,098,732	40,384,203	40,404,070	34,445,911	38,130,650	42,245,800	43,555,500
Fourth Quarter	21,425,089	29,128,972	29,827,133	38,645,563	30,588,760	30,442,700	
Total	131,278,147	133,464,013	131,371,817	135,905,203	132,076,317	137,708,500	
1st and 2nd Qtr	67,754,326	63,950,838	61,140,614	62,813,729	63,356,907	65,020,000	62,628,400

Borough of Madison Electric kWh billed thru the Borough's Billing System for 2010-2016

	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016
First Quarter	32,398,202	30,431,976	27,747,242	29,963,442	30,682,068	30,610,106	28,880,014
Second Quarter	32,078,764	29,157,762	28,193,491	29,830,615	28,998,447	28,385,032	28,781,884
Third Quarter	41,292,028	40,267,279	40,235,805	41,014,282	36,165,461	40,359,943	40,966,478
Fourth Quarter	29,533,851	26,845,458	27,950,603	29,914,792	27,002,138	28,336,343	
Total	135,302,845	126,702,475	124,127,141	130,723,131	122,848,114	127,691,424	
1st and 2nd Qtr	64,476,966	59,589,738	55,940,733	59,794,057	59,680,515	58,995,138	57,661,898

Electric Utility Performance



Borough of Madison

Schedule of Electric Utility Surplus Balances (in 000's) as of December 31st

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	Actual	Rev Est	Estimate	Estimate									
1 Balance at Beginning of Year	\$7,079	\$7,387	\$8,959	\$4,477	\$2,718	\$4,822	\$4,683	\$5,373	\$6,322	\$6,496	\$8,155	\$10,095	\$11,106
2 Less: Utilized in Municipal Budget	(4,360)	(4,360)	(3,450)	(3,450)	(2,656)	(3,356)	(3,516)	(3,722)	(5,796)	(6,233)	(7,199)	(7,200)	(7,200)
3 Add: Generated in Current Year	4,668	5,932	(1,032)	1,691	4,760	3,217	4,206	4,671	5,970	7,892	9,139	8,211	8,073
4 Balance at Year End	\$7,387	\$8,959	\$4,477	\$2,718	\$4,822	\$4,683	\$5,373	\$6,322	\$6,496	\$8,155	\$10,095	\$11,106	\$11,979
4a Free Balance on 1/1 after surplus transfer	\$2,719	\$3,027	\$5,509	\$1,027	\$62	\$1,466	\$1,167	\$1,651	\$526	\$263	\$956	\$2,895	\$3,906

Surplus Estimates have been revised using the "Medium" figure below.

Borough of Madison

Schedule of Electric Utility Sales and Performance (in 000's) as of December 31st

Revised October 24, 2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 Budget Est 3/14/16	2016 New Estimates 10/18/16			New 2017 Estimate	New 2018 Estimate
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual		Low	Medium	High		
ACTUAL REVENUES																
5 Cash Collections	\$14,450	\$15,342	\$16,623	\$19,536	\$23,184	\$22,351	\$22,694	\$23,177	\$22,411	\$22,839	\$22,300	\$22,900	\$23,100	\$23,450	\$22,400	\$22,500
6 MRNA + Fund Balance Realized	573	610	453	232	406	188	135	195	768	42	100	100	100	100	100	100
7 Cancellation of CY/PY																
7 Appropriations	604	857	820	1,296	993	927	710	506	669	826	675	900	970	1,020	675	675
BUDGETED EXPENSES																
8 Block Contracts	(8,200)	(8,200)	(16,000)	(16,200)	(16,500)	(16,800)	(16,000)	(15,800)	(14,000)	(11,713)	(6,750)	(6,750)	(6,750)	(6,750)	(6,350)	(5,800)
9 Capacity											(2,265)	(2,265)	(2,265)	(2,265)	(2,470)	(2,993)
10 Transmission											(529)	(529)	(529)	(529)	(552)	(725)
11 Spot, Admin, Ancillaries, etc											(797)	(797)	(797)	(797)	(802)	(809)
12 Admin & Operating	(2,359)	(2,677)	(2,928)	(3,173)	(3,223)	(3,349)	(3,233)	(3,307)	(3,678)	(3,702)	(3,725)	(3,795)	(3,795)	(3,795)	(3,895)	(3,980)
13 Elec Utility Capital*	(400)	0	0	0	(100)	(100)	(100)	(100)	(200)	(400)	(895)	(895)	(895)	(895)	(895)	(895)
14 Total Surplus Generated	\$4,668	\$5,932	(\$1,032)	\$1,691	\$4,760	\$3,217	\$4,206	\$4,671	\$5,970	\$7,892	\$8,114	\$8,869	\$9,139	\$9,539	\$8,211	\$8,073
												low	medium	high		

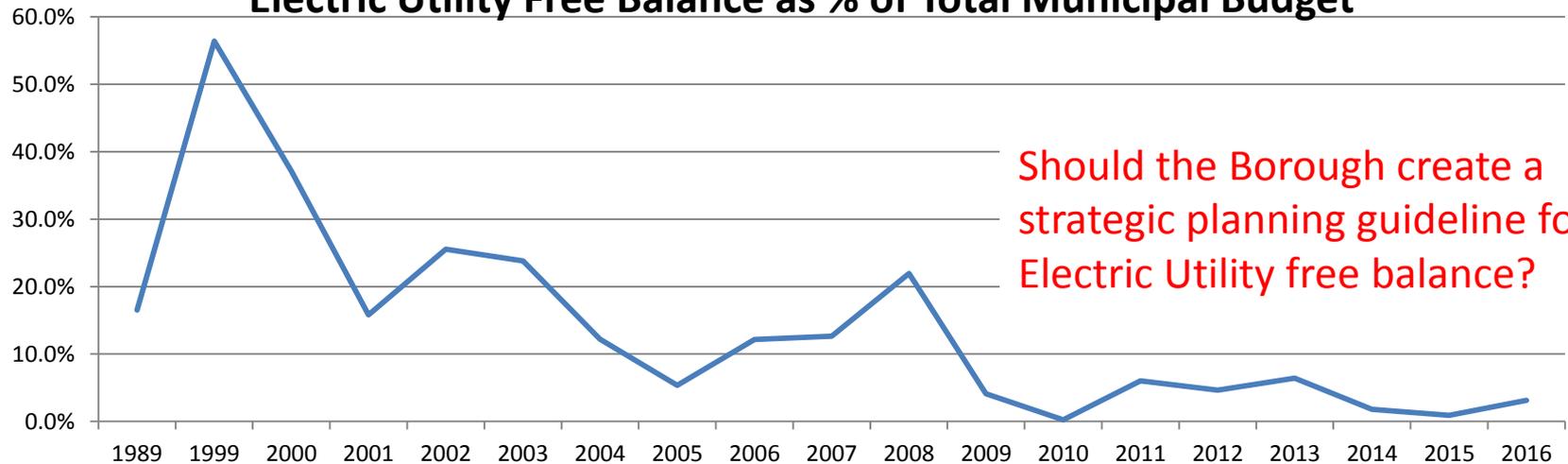
•With everything else being equal, surplus generation is estimated to climb the next few years. This will allow the Borough to build important 'free balance' (line 5). Free Balance is Line 1 minus Line 2. With no free balance in 2015, the Borough essentially drained the surplus down to almost zero, leaving no cushion for emergencies.

Electric Utility Surplus

Borough of Madison
Electric Utility Surplus compared to Municipal Budget (in 000's)

	1989	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. Electric Utility - Fund Balance January 1st	\$3,503	\$16,151	\$12,351	\$12,738	\$8,915	\$8,598	\$6,524	\$5,388	\$7,080	\$7,387	\$8,959	\$4,477	\$2,718	\$4,822	\$4,684	\$5,373	\$6,322	\$6,496	\$8,155
2. Elec Utility Surplus used in Muni Budget	1,392	3,800	5,000	9,000	4,000	4,000	4,120	4,290	4,360	4,360	3,450	3,450	2,656	3,356	3,516	3,722	5,796	6,233	7,199
3. Electric Utility 'Free Balance'	2,110	12,351	7,351	3,738	4,915	4,598	2,404	1,098	2,720	3,027	5,509	1,027	62	1,466	1,168	1,651	526	263	956
4. Total Municipal Operating Budget	\$12,796	\$21,890	\$19,777	\$23,692	\$19,233	\$19,332	\$19,730	\$20,617	\$22,385	\$23,972	\$25,138	\$25,181	\$24,771	\$24,439	\$25,151	\$25,682	\$29,558	\$29,063	\$30,618
5. Elec Util Free Balance as % of total budget	16%	56%	37%	16%	26%	24%	12%	5%	12%	13%	22%	4%	0%	6%	5%	6%	2%	1%	3%

Electric Utility Free Balance as % of Total Municipal Budget



Should the Borough create a strategic planning guideline for Electric Utility free balance?

- A portion of electric utility surplus that is generated in the current year gets transferred to the Municipal Budget as tax relief the following year. This has been happening for over 70 years. Free Balance is the surplus that is left over after the transfer occurs. The chart above shows the Electric Utility Free Surplus Balance as a percentage of the total municipal budget. The Borough historically has held much larger surplus balances in the Electric Utility.
- Electric Utility Surplus is estimated to climb the next few years. This will give the Borough the opportunity to build free balance. With no free balance in 2015, the Borough essentially drained the surplus down to almost zero leaving no cushion for emergencies.

Transmission Costs



Borough of Madison
Schedule of Electric Utility Sales and Performance (in 000's) as of December 31st
Revised October 18, 2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 Budget Est	2016 New Estimates 10/18/16			New 2017	New 2018
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	3/14/16	Low	Medium	High	Estimate	Estimate
ACTUAL REVENUES																
5 Cash Collections	\$14,450	\$15,342	\$16,623	\$19,536	\$23,184	\$22,351	\$22,694	\$23,177	\$22,411	\$22,839	\$22,300	\$22,900	\$23,100	\$23,450	\$22,400	\$22,500
6 MRNA + Fund Balance Realized Cancellation of CY/PY	573	610	453	232	406	188	135	195	768	42	100	100	100	100	100	100
7 Appropriations	604	857	820	1,296	993	927	710	506	669	826	675	900	970	1,020	675	675
BUDGETED EXPENSES																
8 Block Contracts	(8,200)	(8,200)	(16,000)	(16,200)	(16,500)	(16,800)	(16,000)	(15,800)	(14,000)	(11,713)	(6,750)	(6,750)	(6,750)	(6,750)	(6,350)	(5,800)
9 Capacity											(2,265)	(2,265)	(2,265)	(2,265)	(2,470)	(2,993)
10 Transmission											(529)	(529)	(529)	(529)	(552)	(725)
11 Spot, Admin, Ancillaries, etc											(797)	(797)	(797)	(797)	(802)	(809)
12 Admin & Operating	(2,359)	(2,677)	(2,928)	(3,173)	(3,223)	(3,349)	(3,233)	(3,307)	(3,678)	(3,702)	(3,725)	(3,795)	(3,795)	(3,795)	(3,895)	(3,980)
13 Elec Utility Capital*	(400)	0	0	0	(100)	(100)	(100)	(100)	(200)	(400)	(895)	(895)	(895)	(895)	(895)	(895)
14 Total Surplus Generated	\$4,668	\$5,932	(\$1,032)	\$1,691	\$4,760	\$3,217	\$4,206	\$4,671	\$5,970	\$7,892	\$8,114	\$8,869	\$9,139	\$9,539	\$8,211	\$8,073
												low	medium	high		

- JCP&L is trying to divest their transmission assets (the power lines that transport the energy from the power plants to the sub-stations).
- Madison's Transmission costs could go up significantly in the coming years. Park Ridge pays \$23.34 per mWh for Transmission while Madison pays only \$3.90 per mWh. This is nearly 6x what the Borough currently pays.
- The Borough could be facing an additional \$1 million or more in Transmission Costs in the coming years.



Contract Portfolio



IOU Purchasing via BGS Auction				
2016-7	2017-8	2018-9	2019-20	2020-21
purchased Feb '14				
Purchased Feb 2015				
	Purchased Feb 2016			
100.00%	66.67%	33.33%	0.00%	0.00%

Borough of Madison				
2016-7	2017-8	2018-9	2019-20	2020-21
Oct 8, 2015, \$36.09 Exelon	Dec 21, 2015 \$33.20 PSEG	Aug 3, 2016, \$32.75, Exelon		
March 12, 2015, \$41.88 BP	March 12, 2015, \$42.30 Exelon	Dec 7, 2015, \$33.02, Exelon	Aug 3, 2016, \$33.14, Exelon	
Sept 24, 2012, \$47.65, NextEra	May 19, 2014, \$51.50, Exelon	Oct 8, 2015, \$35.40, NextEra	Feb 29, 2016 \$31.25 PSEG	
100.00%	100.00%	66.66%	66.66%	0.00%



Current Electric Rates



Just yesterday, JCP&L notified us of a pending 6.8% rate increase under consideration at the Board of Public Utilities.

Jersey Central Power & Light
A FirstEnergy Company

JEG
Mayor
Council
Administrator
Attorney
cc'd RAH
date 10/21/16

300 Madison Avenue
P. O. Box 1911
Morristown, NJ 07962-1911

October 19, 2016

OCT 21 2016
BOROUGH CLERK
MADISON, NJ

TO: Each Municipal Clerk and County Executive or Administrator of the Municipalities and Counties of New Jersey Served by Jersey Central Power & Light Company

RE: In the Matter of the Verified Petition of **Jersey Central Power & Light Company** For Review and Approval of Increases in and Other Adjustments to Its Rates and Charges For Electric Service, and For Approval of Other Proposed Tariff Revisions in Connection Therewith; and for Approval of an Accelerated Reliability Enhancement Program ("**2016 Base Rate Filing**")
BPU Docket No. ER16040383

Dear Sir/Madam:

We herewith serve upon you a copy of a Notice of Public Hearing for Jersey Central Power & Light Company's ("JCP&L") proposed rate increase and adjustments to the Company's tariff rates and charges for electric service, as well as, other tariff revisions.

PLEASE TAKE NOTICE that the BPU has scheduled public hearings on this matter at the times and places set forth in the enclosed Public Notice.

Copies of the Verified Petitions, together with supporting attachments, are available for inspection at the Company's regional headquarters at 300 Madison Avenue, Morristown, New Jersey.

PUBLIC NOTICE JERSEY CENTRAL POWER & LIGHT COMPANY

NOTICE OF PROPOSED RATE INCREASES AND OTHER ADJUSTMENTS WITH RESPECT TO JCP&L'S TARIFF RATES AND CHARGES FOR ELECTRIC SERVICE, AND WITH RESPECT TO OTHER PROPOSED TARIFF CHARGES AND REVISIONS

AND NOTICE OF PUBLIC HEARINGS THEREON

TO OUR CUSTOMERS: On April 28, 2016, Jersey Central Power & Light Company ("JCP&L" or the "Company"), filed a Verified Petition with the New Jersey Board of Public Utilities (the "Board"), under BPU Docket No. ER16040383, OAL Docket No. PUC 10560-2016N, together with supporting appendices, testimony, exhibits and schedules and revised Tariff sheets.

The Verified Petition seeks the Board's approval of proposed overall increases in and/or other adjustments to JCP&L's various Tariff rates and charges for electric service, and for approval of other proposed Tariff charges and revisions, which are proposed to become effective for service rendered on and after January 31, 2017, or at such later date as the Board may determine.

On September 30, 2016, JCP&L filed its "12 + 0" update, which includes actual data through the twelve months ending June 30, 2016. Based on the Verified Petition and the 12 + 0 update, the proposed new rates would yield an overall net operating revenue increase of approximately \$146.6 million, representing an overall revenue increase of about 8.86% as compared to the same current annualized Tariff rates and revenues. The annual percentage increase applicable to specific customers will vary

according to the applicable rate schedule and the level of the customer's usage.

Copies of the Verified Petitions and all related documents are available for inspection at the Company's regional headquarters at 300 Madison Avenue, Morristown, New Jersey 07962, and 331 Newman Springs Road, Suite 325, Red Bank, New Jersey 07701, at each of the Company's local business offices, and at the Board of Public Utilities, 44 South Clinton Avenue, 7th Floor, Box 350, Trenton, New Jersey 08625. A copy of the filing will also be posted on the Company's website at: https://www.firstenergycorp.com/jersey_central_power_light/regulatory.html.

The following comparisons of present and proposed rates will permit customers to determine the approximate net effect upon them of the proposed increases and adjustments in rates. Any assistance required by customers in this regard will be furnished by the Company upon request. Please note that the Board in its discretion may apply all or any portion of whatever rate increases the Board may ultimately allow to other rate schedules or in a different manner than what JCP&L has proposed in its filings. Accordingly, the final rates and charges to be determined by the Board in this proceeding may be different than what JCP&L has described herein.

SUMMARY OF CUSTOMER IMPACT

Residential (RS)	Residential Average Bill (Includes 7% Sales and Use Tax)		
	Current Monthly Bill (1)	Proposed Monthly Bill (2)	Proposed Monthly Increase
500 kWh average monthly usage	\$69.72	\$73.90	\$4.18
1000 kWh average monthly usage	\$144.32	\$153.33	\$9.01
1500 kWh average monthly usage	\$220.61	\$234.90	\$14.29
Residential Time-of-Day (RT)			
500 kWh average monthly usage	\$74.98	\$80.82	\$5.84
1000 kWh average monthly usage	\$145.39	\$155.37	\$9.98
1500 kWh average monthly usage	\$215.79	\$229.92	\$14.13
Overall Class Average Per Customer (Includes 7% Sales and Use Tax)			
Rate Class	Current Monthly Bill (1)	Proposed Monthly Bill (2)	Proposed % Increase
Residential (RS)	\$112.65	\$120.27	6.8%
Residential Time of Day (RT)	\$152.57	\$162.95	6.8%
General Service – Secondary (GS)	\$615.24	\$652.03	5.8%
General Service – Secondary Time of Day (GST)	\$30,832.18	\$32,606.63	6.0%
General Service – Primary (GP)	\$36,665.83	\$37,107.72	1.2%
General Service – Transmission (GT)	\$98,806.87	\$99,690.33	0.9%
Lighting (Average Per Fixture)	\$10.82	\$11.86	9.6%

(1) Rates effective 4/1/2016 (2) Proposed rates effective 1/31/2017

Proposed % Increase

6.8%

6.8%

6.0%

The Company has also proposed other Tariff adjustments...

Current Electric Rates



The Utility Strategic Planning Committee recommended comparing Madison's rates to both a) municipalities that use surplus for tax relief and b) Investor Owned Utilities that operate in NJ excluding JCP&L.

The below rates assume even consumption all 12 months. JCPL and PSEG have time of use rates and since consumption is typically higher in the summer months, the actual rates may be higher than what is depicted below.

Monthly bill based on 855 kWh					
Municipalities that use surplus for tax relief		Municipalities that do not use surplus for tax relief		Investor Owned Utilities	
Madison	\$172.59	Butler	\$106.04	Atlantic City Elec	\$159.24
Milltown	\$169.03	Lavallette	\$121.20	JCP& L	\$118.27
Pemberton	\$186.90	Park Ridge	\$126.68	PSEG	\$151.39
Seaside	\$157.10	Sussex	\$117.26	Rockland	\$162.15
South River	\$185.74	Vineland	\$120.12		
Average	\$174.27			IOU Average Excluding JCPL	\$157.59

Electric Rates vs Taxes



2015 Electric Utility Revenue \$22,839,259

Top 50 Electric Customers \$9,168,688

Top 50 Electric Customers represent 40.1% of the total electric revenue.

2015 Total Property Taxes \$65,292,321

Top 50 Property Tax Payers \$8,565,744

Top 50 Property Tax Payers represent 13.1% of total taxes billed.

The following chart shows the electric and property tax bill for various properties in town and the impact of dropping electric rates 10% and the increase in property taxes that would be required to make up the loss of \$2.2 million utility revenue (the amount a 10% rate drop represents).

	Jim	Ray	"Avg Home"	Quest Diagnostics	Drew
2015 electric bill	\$2,658	\$2,106	\$1,625	\$688,221	\$1,865,775
2015 property taxes	\$18,683	\$9,132	\$12,276	\$397,440	n/a
assessed value of property	\$1,025,100	\$496,300	\$667,200	\$21,600,000	n/a
change taxes by \$2.2 million	656.06	317.63	427.01	13,824.00	n/a
change electric by 10% (\$2.2 mill)	\$265.80	\$210.60	\$162.50	\$68,822.10	\$186,577.50

“Average Home” is the same actual home used in the tax bill breakdown on the 2016 budget summary.



Municipal Budget

As presented during the budget discussions earlier this year



Line	REVENUE	2015	2016	INCREASE (DECREASE)	PERCENT CHANGE	Estimate 2017	Estimate 2018
1	PRIOR YR. SURPLUS - OPERATING	3,900,000	4,200,000	300,000	7.69%	4,250,000	4,150,000
1a	PRIOR YR. SURPLUS - CAPITAL	0	0	0	0	300,000	300,000
1b	WATER SURPLUS - OPERATING	500,000	500,000	0	0.00%	500,000	500,000
1c	GVR PILOT PAYMENT	0	0	0	0		300,000
2	MUNICIPAL SOURCES	3,420,000	3,452,559	32,559	0.95%	3,521,610	3,592,042
3	GENERAL CAPITAL FUND BALANCE	130,000	130,000	0	0.00%	130,000	-
4	STATE AID AND GRANTS	1,038,038	1,038,038	0	0.00%	1,038,038	1,038,038
5	ELECTRIC SURPLUS - CAPITAL	2,870,000	3,670,000	800,000	27.87%	3,370,000	3,800,000
6	ELECTRIC SURPLUS - OPER.	1,116,400	1,199,444	83,044	7.44%	1,212,353	917,266
7	ELECTRIC SURPLUS - DEBT SVC	2,246,600	2,330,000	83,400	3.71%	2,327,000	2,327,000
8	TOTAL MUNICIPAL REVENUES	15,221,038	16,520,041	1,299,003	8.53%	16,649,001	16,924,346
9	PROPERTY TAXES	13,842,164	14,049,796	207,632	1.50%	14,330,792	14,617,408
10	TOTAL REVENUES	29,063,202	30,569,837	1,506,635	5.18%	30,979,793	31,541,754
	APPROPRIATIONS						
11	SALARIES & WAGES	10,011,582	10,256,362	244,780	2.44%	10,512,771	10,775,590
12	HEALTH INSURANCE (NET)	1,814,000	1,814,000	0	0.00%	1,830,000	1,855,000
13	PENSION & SOCIAL SECURITY	1,722,000	1,816,000	94,000	5.46%	1,888,640	1,964,186
14	SUB-TOTAL	13,547,582	13,886,362	338,780	2.50%	14,231,411	14,594,776
15	UNEMPLOYMENT INSURANCE	50,000	50,000	0	0.00%	50,000	50,000
16	LEGAL	210,000	210,000	0	0.00%	215,000	220,000
17	DEPARTMENT OPERATING EXP.	2,849,284	2,949,163	99,879	3.51%	3,022,892	3,098,464
18	UTILITIES	787,000	779,600	(7,400)	-0.94%	799,090	819,067
19	WASTE REMOVAL	1,608,600	1,645,300	36,700	2.28%	1,672,800	1,696,100
20	LIABILITY INSURANCE	590,000	608,000	18,000	3.05%	623,200	638,780
21	SUB-TOTAL	6,094,884	6,242,063	147,179	2.41%	6,382,982	6,522,412
22	CAPITAL IMPROVEMENT FUND	3,053,000	3,800,000	747,000	24.47%	3,800,000	3,800,000
23	DEBT SERVICE	2,246,600	2,330,000	83,400	3.71%	2,327,000	2,327,000
24	REVALUATION NOTE PAYMENT	80,000	80,000	0	0.00%		
25	SUB-TOTAL	5,379,600	6,210,000	830,400	15.44%	6,127,000	6,127,000
26	MADISON-CHATHAM JOINT MTG.	1,030,131	1,175,000	144,869	14.06%	1,120,000	1,123,500
27	PUBLIC LIBRARY	1,379,005	1,391,412	12,407	0.90%	1,420,100	1,441,800
28	TOTAL SPENDING	27,431,202	28,904,837	1,473,635	5.37%	29,281,493	29,809,488
29	RESERVE FOR UNCOLL. TAXES	1,632,000	1,665,000	33,000	2.02%	1,698,300	1,732,266
30	TOTAL APPROPRIATIONS	29,063,202	30,569,837	1,506,635	5.18%	30,979,793	31,541,754

Future budgets currently include a certain \$\$ amount being transferred from the Electric Utility to the municipal budget to fund capital, debt and a portion of operating.

• This is the budget that was presented earlier this year (ie no modifications to 2017 and 2018 estimates)



5 Year Capital Plan



Borough of Madison
5 Year Capital Improvement Plan
Reported on February 22, 2016

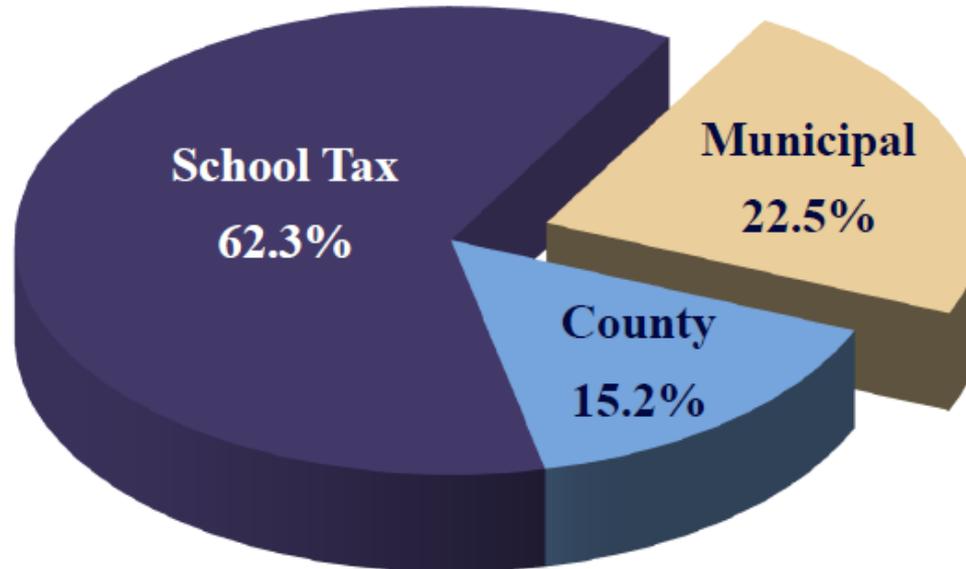
<u>Department/ Projects</u>	<u>2017</u>
Engineering & Public Works	
Road Reconstruction	1,460,000
Milling/Overlay/Lots/Sidewalks	960,000
Stormwater System	500,000
Sanitary Capital	720,000
Building Improvements	280,000
Roads, Parks & Equipment	250,000
Subtotal	4,170,000
Recreation	75,000
Police	230,000
Fire	257,500
Library	300,000
Total General Capital *	5,032,500
Electric Utility	760,000
Water Utility	610,000
Total Utility Capital	\$ 1,370,000

The current five year General Capital need is estimated at \$20,427,150 which averages to over \$4 million per year. **As it stands right now, we do not have the funds to cover the \$5+ million in capital needs in 2017.**

Effective Tax Increase

MADISON TAX BILL BREAKDOWN

This chart illustrates the breakdown of property taxes for each component of your property tax bill.



	2013	2016	3 Year Increase
County	1,781.42	1,901.52	\$120.10
School	7,119.02	7,799.57	\$680.55
Borough	2,802.24	2,808.91	\$6.67
Total	11,702.68	12,510.00	\$807.32

This table shows all of the parts of a tax bill for a homeowner's property assessed at \$667,200.

Borough Services



HOW PROPERTY TAXES AND SERVICES COMPARE TO OUR NEIGHBORS

Town	2015 Per Person Municipal Tax	Garbage included in taxes?	Curbside Yard Waste?	Sewer included in taxes?	Fall Curbside Leaf Pickup?	Paid, Professional Fire Dept?	Municipal Electric Utility?	Senior Center and Van?
Madison	\$794	Yes	Yes	Yes	Yes	Yes	Yes	Yes and Yes
Chatham Boro	\$847	No	Yes	No	Yes	No	No	Yes and Yes
Chatham Twp	\$802	No	No	No	No	No	No	Yes and Yes
Morris Twp	\$1,010	Yes	Yes	No	Yes	Yes	No	No
Florham Park	\$1,037	No	Yes	No	Yes	No	No	Yes but no van
Harding	\$1,408	No	No	No	No	No	No	No

A home valued at \$667,200, received a 2016 property tax bill of \$12,510. The municipal portion of this property tax bill is \$2,809. For this amount, the residents of that home will receive the following municipal services and capital programs:

Municipal Services

Garbage & Recycling Pickup
 Yard Waste & Fall Leaf Pickup
 Road Plowing & Maintenance
 Recreation & Parks Maintenance
 Senior Citizen Services
 Water Utility including 525+ hydrants
 Library

Police Department & Crossing Guards
 Fire Department & Fire Safety
 Sewage Treatment
 Health Department
 Administration/Elections/Records
 Construction/Planning/Zoning
 Electric Utility including 1200 street lights

Capital and Infrastructure

Road Maintenance and Reconstruction
 Electric & Water Utility Infrastructure
 Sewage & Storm Water Systems
 Hartley Dodge, Library other Buildings
 Parks and Recreation Fields
 Fire Trucks and Large Apparatus
 Public Works Equipment and Vehicles

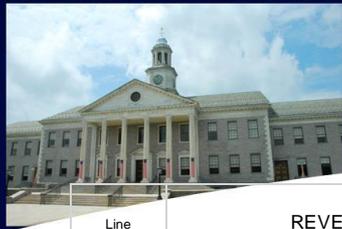
Electric Utility Performance

Borough of Madison
Schedule of Electric Utility Sales and Performance (in 000's) as of December 31st
Revised October 18, 2016

	2014 Actual	2015 Actual	2016 Budget Est 3/14/16	2016 New Estimates 10/18/16			New 2017 Estimate	New 2018 Estimate
				Low	Medium	High		
ACTUAL REVENUES								
5 Cash Collections	\$ 22,411	\$ 22,839	\$ 22,300	\$ 22,900	\$ 23,100	\$ 23,450	\$ 22,400	\$ 22,500
6 MRNA + Fund Balance Realized	768	42	100	100	100	100	100	100
7 Cancellation of CY/PY Appropriations	669	826	675	900	970	1,020	675	675
BUDGETED EXPENSES								
8 Block Contracts	(14,000)	(11,713)	(6,750)	(6,750)	(6,750)	(6,750)	(6,207)	(5,495)
9 Capacity			(2,265)	(2,265)	(2,265)	(2,265)	(2,470)	(2,993)
10 Transmission			(529)	(529)	(529)	(529)	(552)	(725)
11 Spot, Admin, Ancillaries, etc			(797)	(797)	(797)	(797)	(802)	(809)
12 Admin & Operating	(3,678)	(3,702)	(3,725)	(3,795)	(3,795)	(3,795)	(3,895)	(3,980)
13 Elec Utility Capital*	(200)	(400)	(895)	(895)	(895)	(895)	(895)	(895)
14 Total Surplus Generated	\$ 5,970	\$ 7,892	\$ 8,114	\$ 8,869	\$ 9,139	\$ 9,539	\$ 8,354	\$ 8,378

low medium high

There should be a discussion between a) how much extra surplus there is above and beyond the needs of the Borough and b) the impact of dropping rates to a point where it causes an increase in property taxes.



Municipal Budget

As presented during the budget discussions earlier this year



Line	REVENUE	2015	2016	INCREASE (DECREASE)	PERCENT CHANGE	Estimate 2017	Estimate 2018
1	PRIOR YR. SURPLUS - OPERATING	3,900,000	4,200,000	300,000	7.69%	4,250,000	4,150,000
1a	PRIOR YR. SURPLUS - CAPITAL	0	0	0	0	300,000	300,000
1b	WATER SURPLUS - OPERATING	500,000	500,000	0	0.00%	500,000	500,000
1c	GVR PILOT PAYMENT	0	0	0	0		300,000
2	MUNICIPAL SOURCES	3,420,000	3,452,559	32,559	0.95%	3,521,610	3,592,042
3	GENERAL CAPITAL FUND BALANCE	130,000	130,000	0	0.00%	130,000	-
4	STATE AID AND GRANTS	1,038,038	1,038,038	0	0.00%	1,038,038	1,038,038
5	ELECTRIC SURPLUS - CAPITAL	2,870,000	3,670,000	800,000	27.87%	3,370,000	3,800,000
6	ELECTRIC SURPLUS - OPER.	1,116,400	1,199,444	83,044	7.44%	1,212,353	917,266
7	ELECTRIC SURPLUS - DEBT SVC	2,246,600	2,330,000	83,400	3.71%	2,327,000	2,327,000
8	TOTAL MUNICIPAL REVENUES	15,221,038	16,520,041	1,299,003	8.53%	16,649,001	16,924,346
9	PROPERTY TAXES	13,842,164	14,049,796	207,632	1.50%	14,330,792	14,617,408
10	TOTAL REVENUES	29,063,202	30,569,837	1,506,635	5.18%	30,979,793	31,541,754
	APPROPRIATIONS						
11	SALARIES & WAGES	10,011,582	10,256,362	244,780	2.44%	10,512,771	10,775,590
12	HEALTH INSURANCE (NET)	1,814,000	1,814,000	0	0.00%	1,830,000	1,855,000
13	PENSION & SOCIAL SECURITY	1,722,000	1,816,000	94,000	5.46%	1,888,640	1,964,186
14	SUB-TOTAL	13,547,582	13,886,362	338,780	2.50%	14,231,411	14,594,776
15	UNEMPLOYMENT INSURANCE	50,000	50,000	0	0.00%	50,000	50,000
16	LEGAL	210,000	210,000	0	0.00%	215,000	220,000
17	DEPARTMENT OPERATING EXP.	2,849,284	2,949,163	99,879	3.51%	3,022,892	3,098,464
18	UTILITIES	787,000	779,600	(7,400)	-0.94%	799,090	819,067
19	WASTE REMOVAL	1,608,600	1,645,300	36,700	2.28%	1,672,800	1,696,100
20	LIABILITY INSURANCE	590,000	608,000	18,000	3.05%	623,200	638,780
21	SUB-TOTAL	6,094,884	6,242,063	147,179	2.41%	6,382,982	6,522,412
22	CAPITAL IMPROVEMENT FUND	3,053,000	3,800,000	747,000	24.47%	3,800,000	3,800,000
23	DEBT SERVICE	2,246,600	2,330,000	83,400	3.71%	2,327,000	2,327,000
24	REVALUATION NOTE PAYMENT	80,000	80,000	0	0.00%		
25	SUB-TOTAL	5,379,600	6,210,000	830,400	15.44%	6,127,000	6,127,000
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29	RESERVE FOR UNCOLL. TAXES	1,632,000	1,665,000	33,000	2.02%	1,698,300	1,732,266
30	TOTAL APPROPRIATIONS	29,063,202	30,569,837	1,506,635	5.18%	30,979,793	31,541,754

If the revenue loss of a 10% electric rate cut were made up in property taxes, it would result in the Municipal Property Tax increasing by 15.7%.



Borough of Madison



QUESTIONS?

