# **BOARD OF PUBLIC WORKS**



# BUDGET MEETING April 25, 2017

This presentation is available on the Borough's web site at www.parkridgeboro.com

# **BOARD OF PUBLIC WORKS**

Dr. Charles Moore, President
John D. Pouletsos, Vice President
George J. Mehm
Matthew Levinson
Richard Bosi, Council Liaison

### **OPERATIONS MANAGEMENT STAFF**

William Beattie, Director of Operations
Paul Longo, General Supervisor Electric Distribution
Christopher O'Leary, General Supervisor Water & Sewer
Peter Wayne, General Supervisor of Public Works
Angelo Dell'Armo, Project Engineer

# **Park Ridge Operations Supervisors**



William Beattie Director of Operations



Paul Longo Supervisor of Electric Dist.



Peter Wayne Supervisor of Public Works



Angelo Dell'Armo Project Engineer



Christopher O'Leary Asst. Supv of Water & Sewer

### **Utility and Public Works Shared Services**

- <u>Joint Managed Contract Request For Proposals for Wholesale Power Supply</u> Eight NJ Municipal Electric Utilities (Park Ridge, Seaside Heights, Lavallette, South River, Milltown, Butler, Madison, Pemberton) have joined together and are using a managed contract approach to procure wholesale power. This has resulted in lower energy costs and this savings is being passed along to our customers.
- <u>Tri-Boro Fuel Depot</u> Unleaded and Diesel fueling station shared with Montvale and Woodcliff Lake.
- <u>Sewer Flusher</u> We joined with Emerson and in 2010 we received a new Sewer flusher truck at no cost through a grant that was applied for through Bergen County. Emerson, Park Ridge and Montvale use this sewer flusher.
- <u>Sewer Camera</u> Shared with several towns in the Pascack Valley for video inspection of sewer mains.

- <u>Public Power Association of New Jersey (PPANJ)</u> Electric Department is a member of this service association comprised of all nine municipal electric utilities in New Jersey and Sussex Rural Electric Cooperative. Benefits include:
  - o Share legal, engineering, administrative and consulting costs to monitor and act on both state and federal regulatory matters.
  - o Share purchase of low-cost hydroelectric power from federally-funded projects on the St. Lawrence.
  - o Joint power proposal contracts.
- New Jersey Public Power Authority (NJPPA) Through a group effort of all the NJ municipalities owning electric utilities, in late 2015 we were able to pass legislation which was signed by the Governor that enabled us to form a NJ Public Power Authority. The Authority was formed last year and Park Ridge became a member. We are now in the process of on setting up the Authority which will enable the NJ municipal electric utilities to purchase energy contracts, power facilities, and other shared services.

- <u>American Public Power Association (APPA)</u> Park Ridge Electric Department is a member of National APPA, comprised of municipally-owned electric utilities throughout the country. The main function this organization provides is for the monitoring and support for regulatory matters that could affect municipal electric utilities. They also provide educational materials and training.
- New Jersey American Water Works Association (NJAWWA) Park Ridge Water Department is a member of the New Jersey AWWA, comprised of water utilities and professionals in New Jersey. This organization provides support and training for the water utilities. Also monitors and provides guidance to the New Jersey Legislators to promote public health and welfare in the provision of drinking water of unquestionable quality and sufficient quantity.
- New Jersey Water Association Park Ridge Water Department is a member of this organization which is comprised of the smaller water utilities in New Jersey. This organization provides support and free training programs for the water department staff. Because most of our staff have obtained their operator's licenses, this organization provides an excellent tool for the employees to keep up with their required continuing education credits at a minimal cost. They also provide additional monitoring and guidance for regulatory issues in New Jersey.

# FINANCE DEPARTMENT STAFFING

	Years of Service	
Joseph Kolodziej	2*	
Ron Berg	2**	
Nancy Russell	22	
Liz Maggio	11	
Joseph Barnes	19	
Jessica Mazzarella	14	
Γhomas Mazzarella	6	
\       	on Berg Jancy Russell iz Maggio oseph Barnes essica Mazzarella	

<sup>\* 20</sup> years of financial experience prior to employment with Park Ridge

**Average Years of Service: 11** 

<sup>\*\* 30</sup> years of financial experience prior to employment with Park Ridge

### **Borough Office Staff**



Pictured left to right: Ron Berg, Bob Ludwig, Liz Maggio, Julie Falkenstern, Jess Mazzarella, Karen Prezant, Joe Kolodziej, Tom Mazzarella, Bob Campora, Kelley O'Donnell, Magdalena Giandomenico, Elizabeth Tallman, Francesca Maragliano, Elena Rega, Joe Barnes (not pictured Nancy Russell, Gina Walak, Joan Higgins)

# ROADS, GROUNDS, VEHICLE MAINTENANCE STAFFING

Position	Employee	Years of Service
General Supervisor	Peter Wayne	26
Road Supervisor	Bill Diedtrich	25
SeniorRoad Repairer	John Woods	12
Road Repairer	Joseph Zuccaro	9
Road Repairer	Jason Coughenour	9
Road Repairer	Everett Sayers	4
Road Repairer	Christopher Wheeler	2*
Laborer	Ryan Witham	2
Mechanic	Ken Nibbling	13
Buildings and Grounds	John Reynolds	31

<sup>\* 14</sup> years Public Works experience prior to employment with Park Ridge

**Average Years of Service:** 12<sup>3</sup>

# **Park Ridge DPW Staff**



Pictured left to right: Ryan Witham, Jason Coughenour, Everett Sayers, Christopher Wheeler, Joe Zuccaro, John Reynolds, Ken Nibbling, Bill Diedtrich, John Woods, Peter Wayne

# ROADS, GROUNDS, VEHICLE MAINT 2017 PROJECTS

- Funding has again been appropriated to keep the Recycling Center operating hours on Saturdays from 9AM-2PM all year.
- Capital budget includes funds for extensive road resurfacing program.
- Capital budget includes funds to purchase a new dump truck.
- Continue to work to improve the turf conditions in the parks and ballfields.
- Continue to process approximately 1,200 tons (2,400,000 lbs.) of recyclables and refuse delivered by residents to the Borough's recycling facility.
- Over 7,500 tons (15,000,000 lbs.) of total materials recycled in Park Ridge including curbside pickup and business recycling.
- Continue to maximize the use of Borough equipment and personnel to save recycling and solid waste costs.
- Continue to implement improved recycling and solid waste services.
- Continue employee-training programs.

# WATER AND SEWER DEPARTMENT STAFFING

Position	Employee	Years of Service
General Supervisor	Chris O'Leary	2*
Water Supervisor	Ken Reynolds	31
Senior Water Repairer	Dan Boyle	24
Water Repairer	Mark Gronbeck	15
Water Laborer	Kevin Origoni	5
Water Laborer	Paul Hurley	2
Water Laborer	Mike Rasulo	1
Sewer/Water Repairer	Kevin Altomare	30

<sup>\* 19</sup> years experience prior to coming to Park Ridge

**Average Years of Service: 14** 

### Park Ridge Water Department Staff



Pictured left to right: Mike Rasulo, Kevin Altomare, Kevin Origoni, Anthony Confreda, Paul Hurley, Mark Gronbeck, Dan Boyle, Ken Reynolds, Chris O'Leary

# SEWER 2017 PROJECTS

- Continue aggressive grease trap inspection program.
- Analysis of potential sources of infiltration and inflow
- Replace worn out sewer manholes.
- Utilize shared sewer flusher truck with Montvale and Emerson.
- Utilize sewer camera to perform internal visual inspections of our sewer collection system.

# WATER 2017 PROJECTS

- Well #21 "Test Well" installed and tested in 2016. Plan to install permanent well in 2017 and obtain NJDEP pumping permit. Design and permit permanent pumping and treatment facility.
- Complete the upgrade to the Well #10 Treatment Facility and replace resin (\$425,000).
- Complete the rehabilitation of the Well #7 pumping facility (\$140,000).
- Pilot testing completed in 2016 for the removal of unregulated contaminant 1,4-Dioxane in Well 17. Purchase and install treatment system in 2017 (\$450,000).
- Hire contractor to test and exercise street valves.
- Contract for semi-annual leak detection survey.
- Continue employee-training programs.

# **WATER Building for the Future**

# **2018 System Improvements**

- Construct Well #21 pumping facility \$600,000 to \$800,000
- Evaluating potential of replacing transmission main on Glen Road in Woodcliff Lake \$700,000

## **2019 System Improvements**

• Water distribution improvements - \$150,000

# **2020 System Improvements**

• Water distribution improvements - \$150,000

Water Dept Annual Numbers (2012-2016)					
<u>G</u>	allons Billed				
2016	714,305,000				
2015	689,133,000				
2014	627,873,000				
2013	611,505,000				
2012	637,435,000				
Revenue	(from Water Sales)				
2016	3,303,653				
2015	3,001,795				
2014	2,835,125				
2013	2,815,220				
2012	2,517,950				
<u>Preci</u>	pitation (inches)				
2016	32.09				
2015	31.55				
2014	40.30				
2013	42.94				
2012	36.35				

#### **WATER UTILITY BUDGET**

A. REVENUES	2017 BUDGET	2016 MODIFIED BUDGET	2016 ACTUAL
1. SURPLUS	604,542	407,266	407,266
2. RENTS	2,950,000	2,885,995	3,282,640
3. MISCELLANEOUS	280,000	250,000	284,111
4. WCL PROJ BOND PRINCIPAL-CURRENT	64,208	62,418	62,418
5. CAPITAL SURPLUS		-	
TOTAL REVENUES:	\$3,898,750	\$3,605,679	\$4,036,435
B. OPERATING EXPENSES			
1. SALARY AND WAGES	1,194,500	1,244,800	1,180,901
2. OTHER EXPENSES	1,671,500	1,597,000	1,523,527
3. GROUP INSURACE EMPLOYEES	354,500	308,000	307,806
4. CAPITAL IMPROVEMENT FUND	5,000	5,000	5,000
5. CAPITAL OUTLAY	150,000	38,000	35,841
6. BOND PRINCIPAL	120,000	115,000	115,000
7. BOND INTEREST	33,750	35,941	35,903
8. NOTES INTEREST	15,000	11,838	8,853
9. DEFERRED CHARGES	121,500	21,500	21,500
10. PUBLIC EMPOLYMENT RETIREMENT SYSTEM	140,000	136,500	131,482
11. SOCIAL SECURITY	93,000	92,100	92,046
TOTAL EXPENSES:	\$3,898,750	\$3,605,679	\$3,457,859

#### Surplus

\$618,454 January 1, 2016 \$818,179 December 31, 2016 \$179,937 2016 Appropriation Reserves

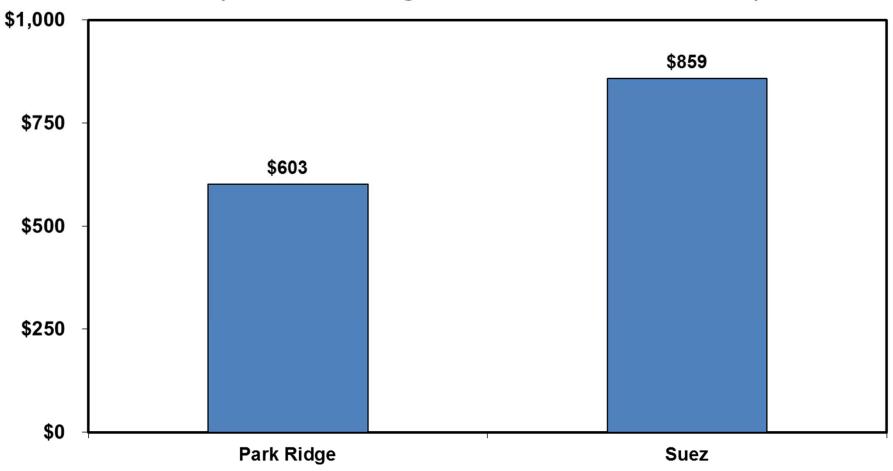
### WATER UTILITY BUDGET (2013-2017)

			16	MODIFIED	1	MODIFIED	14 MODIFIED	13 MODIFIED
REVENUES	17	7 BUDGET		BUDGET		BUDGET	BUDGET	BUDGET
SURPLUS	\$	604,542	\$	407,266	\$	399,400	\$ 267,512	\$ 541,644
RENTS		2,950,000		2,885,995		2,805,000	2,805,000	2,863,000
MISCELLANEOUS		280,000		250,000		250,000	230,000	263,000
RESERVE FOR WCL CAPITAL		-		-		-	-	-
WCL CAPITAL SURCHARGE		-		-		-	389,772	-
CAPITAL SURPLUS		-		-		71,057		-
WCL PROJ BOND PRINCIPAL - CURRENT		64,208		62,418		89,102	26,842	-
WCL PROJ BOND PRINCIPAL - PRIOR		-		-		-	25,051	
TOTAL REVENUES	\$	3,898,750	\$	3,605,679	\$	3,614,559	\$ 3,744,177	\$ 3,667,644
OPERATING EXPENSES								
SALARY AND WAGES		1,194,500		1,244,800		1,222,000	1,177,998	1,150,700
OTHER EXPENSES		1,671,500		1,597,000		1,542,000	1,588,500	1,450,400
GROUP INSURANCE EMPLOYEES		354,500		308,000		308,000	369,800	404,500
CAPITAL OUTLAY		150,000		38,000		165,000	220,000	223,000
SOCIAL SECURITY		93,000		92,100		91,000	90,000	86,500
CAPITAL IMPROVEMENT FUND		5,000		5,000		5,000	25,000	25,000
PUBLIC EMPLOYMENT RETIREMENT		140,000		136,500		113,000	102,525	99,750
BOND PRINCIPAL		120,000		115,000		110,000	110,000	70,000
BOND INTEREST		33,750		35,941		37,059	38,854	32,511
NOTES INTEREST		15,000		11,838		-	-	283
DEFERRED CHARGES		121,500		21,500		21,500	21,500	25,000
TOTAL EXPENSES	\$	3,898,750	\$	3,605,679	\$	3,614,559	\$ 3,744,177	\$ 3,567,644

BOROUGH OF PARK RIDGE Existing Bonded Service 2012 & 2013 Water Utility Bonds

				2013	B Bonds		Total		
Year	Principal	Interest	Total	Outstanding	Principal	Interest	Total	Outstanding	Outstanding
				955,000				472,000	1,427,000
2017	80,000	19,386	99,386	875,000	40,000	14,218	54,218	432,000	1,307,000
2018	80,000	17,786	97,786	795,000	40,000	13,418	53,418	392,000	1,187,000
2019	80,000	16,186	96,186	715,000	40,000	12,618	52,618	352,000	1,067,000
2020	85,000	14,586	99,586	630,000	40,000	11,818	51,818	312,000	942,000
2021	85,000	12,886	97,886	545,000	40,000	10,618	50,618	272,000	817,000
2022	85,000	11,186	96,186	460,000	45,000	9,418	54,418	227,000	687,000
2023	90,000	9,486	99,486	370,000	45,000	8,068	53,068	182,000	552,000
2024	90,000	7,686	97,686	280,000	45,000	6,718	51,718	137,000	417,000
2025	90,000	5,886	95,886	190,000	45,000	5,255	50,255	92,000	282,000
2026	95,000	4,086	99,086	95,000	45,000	3,680	48,680	47,000	142,000
2027	<u>95,000</u>	<u>2,090</u>	<u>97,090</u>	-	<u>47,000</u>	<u>1,880</u>	<u>48,880</u>	-	-
Total	955,000	121,250	1,076,250		472,000	97,709	569,709		

# Annual Residential Water Cost Comparison (based on average residential bill w/ 5/8" meter)



Park Ridge's rate is 30% less than Suez for a typical residential customer

# ELECTRIC DEPARTMENT STAFFING

Position	Employee	Years of Service	
General Supervisor	Paul Longo	13(*16)	
Line Supervisor	James Leichtnam	11(**18)	
Senior Line Worker	Shane Geanoules	8(***5)	
Line Worker	Paul Neumann	30	
Line Worker	Silvestre Jose	7(****6)	
Line Worker	OPEN		
Electrician/Line Worker	Bob Murken Jr.	22	
Meter Reader	Anthony Confreda	1	

<sup>\* 16</sup> years experience with PSE&G prior to employment with Park Ridge \*\*18 years experience with PSE&G prior to employment with Park Ridge \*\*\*5 years experience with PSE&G prior to employment with Park Ridge \*\*\*\*6 years experience with PSE&G prior to employment with Park Ridge

Average Years of Service: 13

### Park Ridge Electric Department Staff



Pictured left to right: Paul Neuman, Silvestre Jose, Shane Geanoules, Jim Leichtnam, Bob Murken, Paul Longo,

# ELECTRIC PROJECTS

- Perform utility pole testing and treatment in half the town (second half to be completed in 2018).
- Design and install new electric systems for new developments in Park Ridge.
- Continue engineering study on the potential addition of a third substation for added redundancy and to eliminate need to replace two transformers at Mill Road Substation.
- Continue using electric department staff expertise for municipal installations (street and recreational lighting, computer networks, etc.).
- Project changes in load that may occur based on potential development sites.
- Continue employee-training programs.

# **ELECTRIC Building for the Future**

#### **2018-19 System Improvements**

Replace Conductors for Sub-transmission Circuit 2601 which feeds from Mill Road substation to the Brae Blvd substation - \$325,000

#### **2019-20 System Improvements**

Install 4011 Circuit from Mill Road Substation to Southeast Borough feed locations. Reconfigure existing circuits 4001, 4003, and 4006. - \$300,000

#### **2020 System Improvements**

Purchase and install Vacuum Circuit Breakers to replace the two existing oil circuit breakers OCB-3 and OCB-4 at Mill Rd. Substation - \$100,000

#### **2021 System Improvements**

Purchase and Install Bus No. 2 Low Side Main Circuit Breaker, Main Disconnect Switches and Associated Bus - \$165,000

# **ELECTRIC Building for the Future**

#### **2021-22 System Improvements**

Prepare Specifications, Bid, Purchase and Install No. 2 Main Power Transformer at Mill Road Substation - \$1,975,000

#### **2023 System Improvements**

Increase Bus Capacity and Main Disc. Switches on Bus No.1 & 2 at the Mill Road Substation - \$400,000

#### **2024 System Improvements**

Purchase and Install Bus No. 1 Low Side Main Circuit Breaker, Main Disconnect Switches and Associated Bus System at the Mill Road Substation - \$195,000

#### **2025 System Improvements**

Prepare Specifications, Bid, Purchase and Install No. 1 Main Power Transformer at Mill Road Substation - \$2,375,000

Electric Department's Extra Benefits to Municipality							
	2013	2014	2015	2016	2017		
*In Lieu of Budget Transfer	500,000	500,000	500,000	500,000	500,000		
Street Lighting	200,000	200,000	200,000	200,000	200,000		
Employees funded out of Electric Department	103,000	103,000	104,000	104,000	100,000		
Discounted electric rates for municipal facilities	50,000	50,000	50,000	50,000	50,000		
*Payment in Lieu of Taxes	155,000	155,000	155,000	155,000	155,000		
Tree Trimming	30,000	35,000	35,000	35,000	35,000		
Misc Work (electrical work, cabling, etc)	23,000	25,000	26,000	26,000	26,000		
Senior Citizen Rate Savings	36,000	36,000	36,000	36,000	36,000		
Computers Purchases and Maintenance	15,000	15,000	15,000	15,000	15,000		
Holiday Decorations/Banners	5,000	5,000	5,000	5,000	5,000		
Use of equipment during snow operations	10,000	10,000	10,000	10,000	10,000		
Maintaining Traffic Signals	12,000	12,000	12,000	12,000	12,000		
Sports Lighting Bulbs and Maintenance	13,000	13,000	13,000	13,000	13,000		
Contribution to the Rehabilitation of Sulak Field	-	-	-	-	-		
Contribution for the study of Mill Pond	10,000	-	-	-	-		
Total	1,162,000	1,159,000	1,161,000	1,161,000	1,157,000		
Water Department	's Extra Bene	fits to Munic	cipality				
	2013	2014	2015	2016	2017		
Employees funded out of Water Department	143,000	143,000	149,000	151,000	150,000		
Reduced Hydrant Fee	140,000	140,000	140,000	140,000	140,000		
* Rental Fee	105,000	105,000	105,000	105,000	105,000		
* Reimbursement of Expenses	100,000	100,000	100,000	100,000	100,000		
Misc Work (plumbing work, stormwater, etc)	12,000	12,000	12,000	12,000	12,000		
Use of equipment during snow operations	12,000	12,000	12,000	12,000	12,000		
Total	512,000	512,000	518,000	520,000	519,000		
Grand Totals	1,674,000	1,671,000	1,679,000	1,681,000	1,676,000		
* Direct Transfers	860,000	860,000	860,000	860,000	860,000		

# Park Ridge Utilities Thinking Green



**LED Street Lights** 



**Ford Fusion Hybrid** 



**EV Car Charging Stations** 



Ford Escape Hybrid

\$25,000 in grant funding received to install three EV charging station. PR Electric, working with Green Team, will purchase and install stations in 2017



**Toyota Camry Hybrid** 

#### **The Park Ridge Water and Electric Conservation Measures**

- <u>Bi-Annual Leak Detection for Entire Water System:</u> Twice a year, the Park Ridge Water Department hires a leak detection consultant to survey the entire water system using specialized equipment to look for distribution system leaks. After each session, a report is generated and the Park Ridge Water Department repairs the leaks. This results in our system having a very low unaccounted-for water measurement (Gallons Pumped vs. Gallons Billed)
  - o United Water 2013 26%
  - o Park Ridge Water Department's 2016 Unaccounted-for-Water 6%
- Electric and Water SCADA Systems: The Park Ridge Electric and Water Systems are monitored by a supervisory control and data acquisition system (SCADA) which allows us to monitor the real time water and electric system demands. By closely monitoring the demands we can see if there are potential water main breaks (e.g. high demand in the middle of the night).

#### **The Park Ridge Water and Electric Conservation Measures**

- Water System Peak Shaving Power Save Mode: We have built into our water system control program, a setting where we can shut down the wells and run the systems off the tank pressure for several hours during periods of peak electric use. By shutting the wells off during the peak periods, our electric system load factor is improved and our capacity charges are reduced.
- <u>Electric Load Forecasting Service</u>: For the past few years, we have paid for a daily grid load forecasting service. Based on weather and other factors in our regional power grid (PJM), we are advised of days we should conserve energy. By reducing load on these days, we can save on the following year's bulk power costs.

### The Park Ridge Utility Garage Solar System

(as of May 2016)



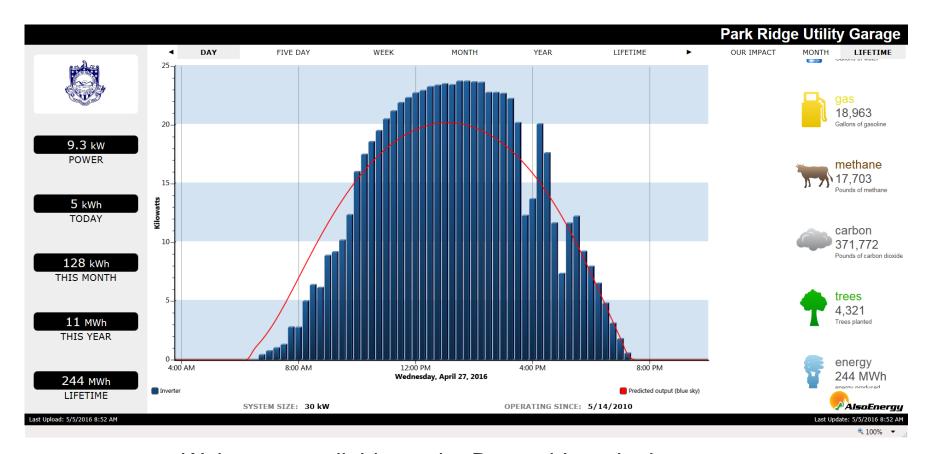
- Cost of Installation (including engineering): \$195,000
- The construction for the project started in March 2010 and was completed and went online in June 2010
- Total DC capacity for the system: 29.7 KW
- Financial benefits as of May 2016:
  - > \$29,700 rebate received from the NJ Office of Clean Energy
  - > \$52,480 received for solar energy renewable credits (SRECs)
  - > \$ 27,883 in reduced electric costs
  - > \$ 110,063 in total benefits
- Total electrical energy generated to date: 201,395 kilowatt-hours

### The Park Ridge Utility Garage Solar System



- Environmental benefits due to the generation of clean renewable energy: To date, the solar system has reduced the amount of carbon dioxide emissions equal to:
  - ➤ The amount 29.9 passenger vehicles would create in a year.
  - ➤ The amount that would have been generated from the electricity used in 20.9 homes in a year.
  - The amount that would have been reduced by the growth of 3,668 tree seedlings over ten years.

### Park Ridge Real Time Solar Output Web Page



Web page available on the Borough's web site at <a href="https://www.parkridgeboro.com">www.parkridgeboro.com</a> in the Electric Utility section.

Electric Dept Annual Numbers (2012-2017)					
Purchase of Curre	(\$)/KWH				
2017 Budget	\$6,867,000	\$ 0.097			
2016	\$6,679,716	\$ 0.097			
2015	\$6,837,558	\$ 0.097			
2014	\$7,377,195	\$ 0.106			
2013	\$7,190,095	\$ 0.100			
2012	\$6,387,383	\$ 0.089			
Energy Billed (	(KWH's)				
2017 Budget	63,243,196				
2016	63,243,196				
2015	65,854,919				
2014	65,939,991				
2013	65,893,133				
2012	67,381,578				
Revenue (from Er	nergy Sales)				
2017 Budget	9,835,000				
2016	9,869,966				
2015	10,070,539				
2014	9,765,882				
2013	9,853,268				
2012	9,582,597				
Heating/Cooling I	Degree Days				
	<u>HDD</u>	<u>CDD</u>			
2016	5,051	1,355			
2015	5,353	1,284			
2014	5,696	1,015			
2013	4,752	1,339			
2012	3,955	1,450			
2011	4,275	1,585			

#### **ELECTRIC UTILITY BUDGET**

A. REVENUES	2017 BUDGET 201	6 MODIFIED BUDGET	2016 ACTUAL
1. SURPLUS	528,350	575,870	575,870
2. LIGHT AND POWER	9,835,000	9,872,729	9,869,966
3. MISCELLANEOUS	30,000	30,000	39,903
4. CAPTIAL SURPLUS	-	-	-
TOTAL REVENUES:	\$10,393,350	\$10,478,599	\$10,485,739
B. OPERATING EXPENSES			
1. SALARY AND WAGES	1,156,100	1,071,900	1,047,584
2. OTHER EXPENSES	653,500	497,000	460,349
3. PURCHASE OF CURRENT	6,867,000	6,754,000	6,679,716
4. GROUP INSURANCE EMPLOYEES	259,000	286,000	231,730
5. IN LIEU FR & GR RECIEPT TAXES	500,000	500,000	500,000
6. PAYMENT IN LIEU OF TAXES-CURRENT	155,000	155,000	155,000
7. CAPITAL IMPROVEMENT FUND	50,000	115,000	115,000
8. CAPITAL OUTLAY	200,500	175,000	101,462
9. BOND PRINCIPAL	265,000	240,000	240,000
10. BOND INTEREST	32,250	37,888	37,860
11. INTEREST ON NOTE	7,500	4,811	3,597
12. DEFERRED CHARGES	25,500	25,500	25,500
13. PUBLIC EMPOLYEES RETIREMENT SYSTEM	135,000	129,500	129,496
14. SOCIAL SECURITY	87,000	87,000	75,318
TOTAL EXPENSES:	\$10,393,350	\$10,078,599	9,802,612

#### Surplus

\$815,879 January 1, 2016 \$847,066 December 31, 2016 \$199,917 2016 Appropriation Reserves

## **ELECTRIC UTILITY BUDGET (2013-2017)**

			16	6 MODIFIED	15	MODIFIED		13 MODIFIED	
REVENUES	1	7 BUDGET		BUDGET		BUDGET	BUDGET	BUDGET	
SURPLUS	\$	528,350	\$	575,870	\$	514,598	\$ 945,480	\$ 1,118,760	
LIGHT AND POWER		9,835,000		9,872,729		9,849,000	9,840,000	9,580,810	
ADDITIONAL PURCHASE POWER ADJ.		-		-		-	180,000	-	
MISCELLANEOUS		30,000		30,000		22,000	36,000	36,000	
CAPITAL SURPLUS		-		-		36,841	-	-	
FEMA NOTE REIMBURSEMENT		-		-		-	52,427	45,000	
FEMA REIMBURSEMENT		-		-		-	108,673	-	
INSURANCE PROCEEDS		-		-		-	25,983	-	
TOTAL REVENUES:	\$	10,393,350	\$	10,478,599	\$	10,422,439	\$11,188,563	\$10,780,570	
OPERATING EXPENSES									
PURCHASE OF CURRENT	\$	6,867,000	\$	6,754,000	\$	7,126,000	\$ 7,840,000	\$ 7,235,000	
SALARY AND WAGES		1,156,100		1,071,900		1,133,000	1,119,000	1,075,000	
OTHER EXPENSES		653,500		497,000		670,000	636,500	588,900	
GROUP INSURANCE EMPLOYEES		259,000		286,000		286,000	360,200	370,000	
IN LIEU FR & GR RECEIPT TAXES		500,000		500,000		500,000	500,000	500,000	
PAYMENT IN LIEU OF TAXES-CURRENT		155,000		155,000		155,000	155,000	155,000	
CAPITAL OUTLAY		200,500		175,000		15,000	33,500	93,500	
CAPITAL IMPROVEMENT FUND		50,000		115,000		33,500	-	-	
PUBLIC EMPLOYEES RETIREMENT SYSTEM		135,000		129,500		107,000	91,994	103,595	
SOCIAL SECURITY		87,000		87,000		87,000	85,000	82,250	
BOND PRINCIPAL		265,000		240,000		240,000	235,000	220,000	
BOND INTEREST		32,250		37,888		44,439	52,198	58,627	
INTEREST ON NOTES		7,500		4,811		-	2,244	3,698	
DEFERRED CHARGES		25,500		25,500		25,500	25,500	45,000	
SPECIAL EMERGENCY - HURRICANE SANDY							52,427		
TOTAL EXPENSES	\$	10,393,350	\$	10,078,599	\$	10,422,439	\$11,188,563	\$10,530,570	

#### BOROUGH OF PARK RIDGE Existing Bonded Service 2007, 2012 & 2013 Electric Utility Bonds

		2007	' Bonds		2012 Bonds			2013 Bonds				Total	
Year	Principal	Interest	Total	Outstanding	Principal	Interest	Total	Outstanding	Principal	Interest	Total	Outstanding	Outstanding
				643,000				305,000				55,000	1,003,000
2017	150,000	24,916	174,916	493,000	100,000	6,100	106,100	205,000	15,000	1,100	16,100	40,000	738,000
2018	150,000	19,104	169,104	343,000	100,000	4,100	104,100	105,000	20,000	800	20,800	20,000	468,000
2019	175,000	13,291	188,291	168,000	105,000	2,100	107,100	-	20,000	400	20,400	-	168,000
2020	168,000	6,510	174,510	_									-
Total	643,000	63,821	706,821		305,000	12,300	317,300		55,000	2,300	57,300		

# MANAGED CONTRACT APPROACH TO PROCURING WHOLESALE POWER

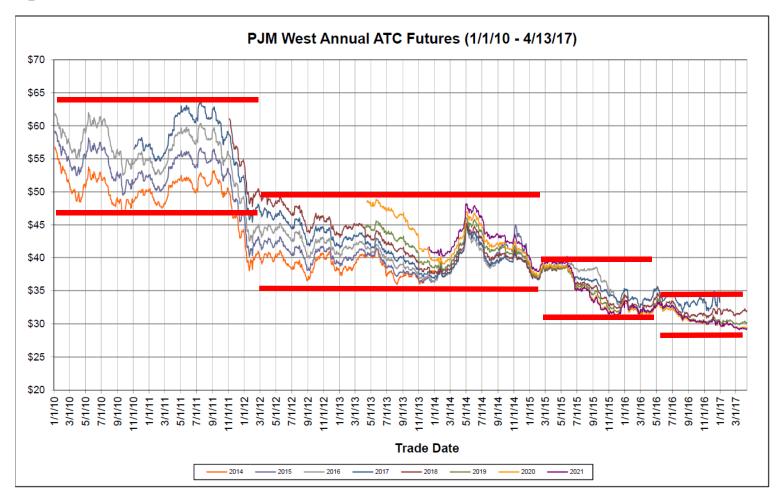
- In 2008 Park Ridge decided to join with South River, Seaside Heights, and Lavallette to procure wholesale power requirements using an alternate "Managed Contract" approach as opposed to the fixed price, full-requirements method. Four other NJ municipal utilities (Madison, Butler, Pemberton and Milltown) joined in the bidding in 2012
- The municipalities contracted with American Power Net to provide procurement advice and wholesale electric procurement services.
- We needed to join the PJM Interconnection which is the regional transmission organization that coordinates the movement and settlement of wholesale electricity.
- Approach approved by the NJ Department of Community Affairs

# MANAGED CONTRACT APPROACH TO PROCURING WHOLESALE POWER

- Using this process, we request proposals and purchase blocks of energy from suppliers at various times to build up a portfolio of contracts for the Borough's power requirements.
- This new approach gives us the ability to monitor the power supply market and purchase some of our requirements, either on a regular basis OR when there are dips in the wholesale electricity futures prices.
- We have been very successful since implementing this program. Our first wholesale purchases using this approach were for the term beginning 6/1/09 through 5/31/10.
- Since November 2008, we have gone out to the market with request for proposals (RFP's) and purchased blocks of power twenty nine (29) times. We have purchased all of our block power requirements through May 2020.

## **Electricity Futures Market Factors**

- o Largely based on natural gas futures prices.
- Normally, the further you purchase out in the market, the bigger the year-toyear spread
- o Currently this is not the case based on mild winter and very low natural gas prices.



## **Electricity Futures Market Factors**

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PJM West Forward Strips for 4/13/2017													
On-Pk	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Strip
2016	N/A												
2017	N/A	N/A	N/A	N/A	\$36.40	\$37.45	\$47.05	\$42.50	\$36.70	\$34.80	\$34.55	\$38.55	\$38
2018	\$54.15	\$50.05	\$38.80	\$33.15	\$33.55	\$34.10	\$43.15	\$39.00	\$31.85	\$31.15	\$30.75	\$34.15	\$37
2019	\$50.25	\$47.25	\$36.50	\$31.15	\$30.25	\$31.70	\$41.20	\$37.55	\$29.65	\$28.05	\$28.35	\$32.00	\$35
2020	\$49.60	\$46.90	\$35.40	\$30.85	\$30.75	\$31.15	\$40.10	\$36.55	\$29.35	\$27.05	\$27.65	\$31.30	\$34
2021	\$49.35	\$46.50	\$35.20	\$30.55	\$30.30	\$31.25	\$40.65	\$37.40	\$29.10	\$27.55	\$28.00	\$31.15	\$34
Off-Pk	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Strip
2016	N/A												
2017	N/A	N/A	N/A	N/A	\$25.05	\$25.10	\$27.95	\$26.15	\$25.05	\$25.60	\$25.75	\$28.90	\$26
2018	\$43.80	\$40.55	\$30.10	\$25.00	\$22.10	\$22.00	\$25.15	\$22.65	\$22.05	\$21.60	\$22.30	\$26.15	\$26
2019	\$41.40	\$39.10	\$28.70	\$24.10	\$21.05	\$20.60	\$24.60	\$22.15	\$20.30	\$20.65	\$21.85	\$25.30	\$25
2020	\$40.25	\$38.10	\$27.95	\$23.45	\$19.95	\$19.85	\$23.55	\$21.70	\$19.65	\$20.15	\$21.20	\$24.80	\$25
2021	\$39.75	\$37.40	\$27.45	\$23.30	\$19.65	\$19.60	\$23.35	\$21.20	\$19.55	\$19.80	\$20.70	\$24.60	\$24
ATC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Strip
2016	N/A												
2017	N/A	N/A	N/A	N/A	\$30.27	\$30.78	\$36.74	\$33.67	\$30.41	\$29.83	\$29.80	\$33.34	\$31
2018	\$48.56	\$44.92	\$34.10	\$28.75	\$27.37	\$27.57	\$33.43	\$30.17	\$26.56	\$25.99	\$26.19	\$29.83	\$31
2019	\$45.47	\$42.85	\$32.29	\$27.34	\$25.28	\$25.71	\$32.24	\$29.23	\$24.60	\$24.05	\$24.84	\$28.38	\$30
2020	\$44.55	\$42.15	\$31.38	\$26.85	\$24.92	\$25.05	\$31.16	\$28.53	\$24.11	\$23.32	\$24.17	\$27.79	\$29
2021	\$44.17	\$41.59	\$31.02	\$26.64	\$24.55	\$24.96	\$31.31	\$28.65	\$23.94	\$23.37	\$24.06	\$27.61	\$29

## **Current & Outstanding Power Purchase Contracts**

#### June 2020-May 2021

Date Purchased	Product	Price	Delivery	Company
12/15/2016	1st Traunch	\$34.89	Hillsdale Node	ВР
1/11/2017	2nd Traunch	32.80	Hillsdale Node	Nextera
1/11/2017	3rd Traunch	31.75	PSE\$G Zone	Nextera

## June 2019-May 2020

Date Purchased	Product	Price	Delivery	Company
3/3/2016	1st Traunch	33.09	PSE&G Zone	Exelon
5/11/2016	2nd Traunch	36.45	PSE&G Zone	Exelon
8/5/2016	3rd Traunch	36.35	Hillsdale Node	Nextera

### June 2018-May 2019

Date Purchased	Product	Price	Delivery	Company
3/11/2015	1st Traunch	43.85	PSE&G Zone	Constellation
10/8/2015	2nd Traunch	36.35	PSE&G Zone	Nextera
3/3/2016	1st Traunch	36.95	Hillsdale Node	BP

### June 2017- May 2018

Date Purchased	Product	Price	Delivery	Company
4/22/2013	1st Traunch	52.00	Hillsdale Node	PPL
9/10/2014	2nd Traunch	46.05	PSE&G Zone	Exelon
3/11/2015	3rd Traunch	49.60	Hillsdale Node	PSEG

## June 2016- May 2017

Date Purchased	Product	Price	Delivery	Company
6/28/2012	1st Traunch	51.20	Hillsdale Node	PPL
4/22/2013	2nd Traunch	51.10	Hillsdale Node	PSEG
9/4/2013	3rd Traunch	45.25	Hillsdale Node	PPL
	2x16			

#### **Prior Power Purchase History**

#### June 2015- May 2016

Date Purchased	Product	Price	Delivery	Company
12/1/2011	1st Traunch	60.16	Hillsdale Node	PSEG
1/5/2012	2nd Traunch	53.90	Hillsdale Node	PSEG
2/1/2012	3rd Traunch	50.51	Hillsdale Node	PSEG
2/1/2012	2x16	45.70	PSE&G Zone	Exelon

#### June 2014- May 2015

Date Purchased	Product	Price	Delivery	Company
2/16/2011	1st Traunch	58.96	PSE&G Zone	Exelon
12/1/2011	2nd Traunch	56.40	Hillsdale Node	PSEG
1/5/2012	3rd Traunch -	51.75	Hillsdale Node	PSEG
12/1/2011	2x16	57.35	PSE&G Zone	Exelon

#### June 2013- May 2014

Date Purchased	Product	Price	Delivery	Company
5/12/2010	1st Traunch	64.50	PSE&G Zone	PPL
6/9/2010	2nd Traunch	61.52	PSE&G Zone	PPL
8/26/2010	3rd Traunch	58.90	PSE&G Zone	Exelon
2/1/2012	Summer Peal	55.20	PSE&G Zone	Nextera
8/26/2010	2x16	59.25	PSE&G Zone	Exelon

#### June 2012- May 2013

Date Purchased	Product	Price	Delivery	Company
3/24/2010	1st Traunch	59.18	Hillsdale	Nextera
4/29/2010	2nd Traunch	61.32	Hillsdale	PSEG
4/29/2010	3rd Traunch	61.32	Hillsdale	PSEG
1/5/2012	Summer Peal	55.10	PSE&G Zone	PSEG
8/26/2010	2x16	56.20	PSE&G Zone	Exelon

#### June 2011- May 2012

Date Purchased	Product Price		Delivery	Company	
8/12/2009	1st Traunch	67.95	Hillsdale	Nextera	
12/7/2009	2nd Traunch	69.20	Hillsdale	Nextera	
3/24/2010	3rd Traunch	55.71	Hillsdale	Nextera	
3/24/2010	2x16	63.25	Hillsdale	PSE&G	
11/15/2010	Summer Peak	65.45	PSE&G Zone	PPL	

#### June 2010- May 2011

Date Purchased	Product Price		Delivery	Company	
1/21/2009	1st Traunch	58.95	Western Hub	Nextera	
5/14/2009	2nd Traunch	72.81	Hillsdale Node	Nextera	
8/12/2009	3rd Traunch	62.85	Hillsdale Node	Nextera	
8/12/2009	2x16	71.50	PSE&G Zone	PSE&G	

#### June 2009- May 2010

Date Purchased	Product	Price	Delivery	Company	
11/6/2008	1st Traunch	66.40	Western Hub	Nextera	
12/10/2008	2nd Traunch	60.75	Western Hub	DTE	
1/21/2009	1/21/2009 3rd Traunch		Western Hub	Nextera	
12/10/2008	2x16	68.00	Western Hub	PSE&G	
1/21/2009	2x16	59.15	Western Hub	Nextera	
6/17/2009	Superpeak	97.00	PSE&G Zone	PSE&G	

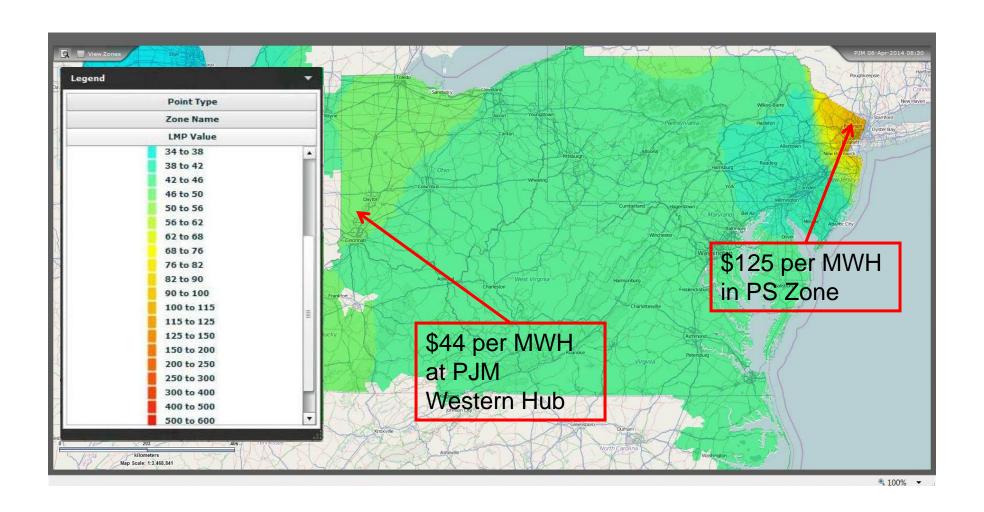
Wholesale Component Budget Costs Comparison - Updated 11-3-16							
	2011	2012	2013	2014	2015	2016	2017
Energy	4,841,213	4,816,265	4,510,959	4,631,999	4,224,220	3,849,412	3,469,000
Capacity	1,141,999	1,089,868	1,781,839	1,540,924	1,271,843	1,600,007	1,589,000
Transmission	592,446	556,641	789,063	1,093,690	1,374,484	1,165,237	1,609,000
Others	336,811	265,885	252,300	156,156	205,206	121,409	88,000
Total	6,912,469	6,728,660	7,334,161	7,422,769	7,075,753	6,736,065	6,755,000
		Percentage	of Total Co	st Compari	son		
	2011	2012	2013	2014	2015	2016	2017
Energy	70%	72%	62%	62%	60%	57%	51%
Capacity	17%	16%	24%	21%	18%	24%	24%
Transmission	9%	8%	11%	15%	19%	17%	24%
Others	5%	4%	3%	2%	3%	2%	1%

## **Energy Costs**

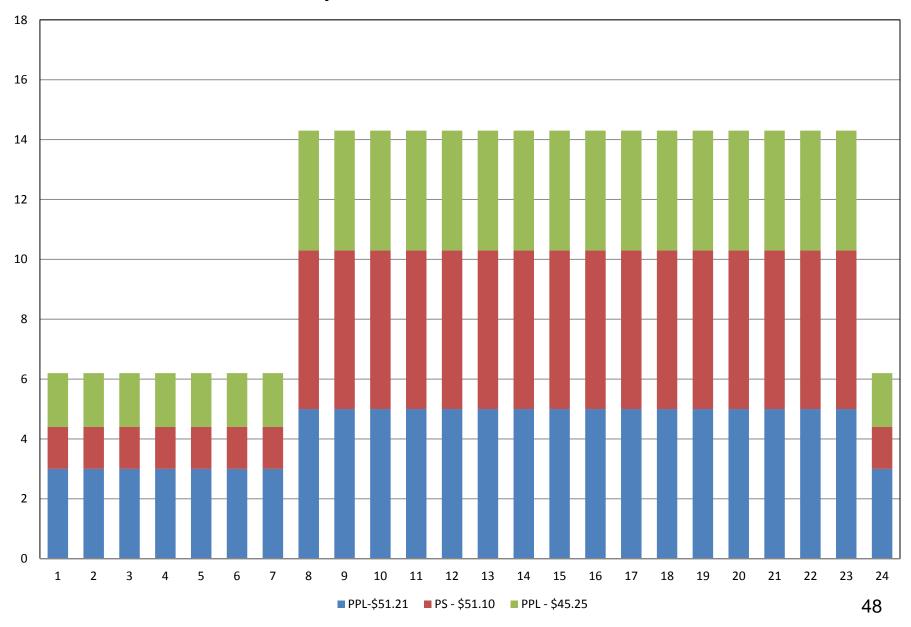
Energy costs are what we pay for the energy that is generated at the power plants and then delivered to our substation. The cost is based on our wholesale block purchases along with hourly spot purchases when we need additional energy, and spot sales when we have surplus energy.

June 2016- May 2017				
Date Purchased	Product	Price	Delivery	Company
6/28/2012	1st Traunch	51.20	Hillsdale Node	PPL
4/22/2013	2nd Traunch	51.10	Hillsdale Node	PSEG
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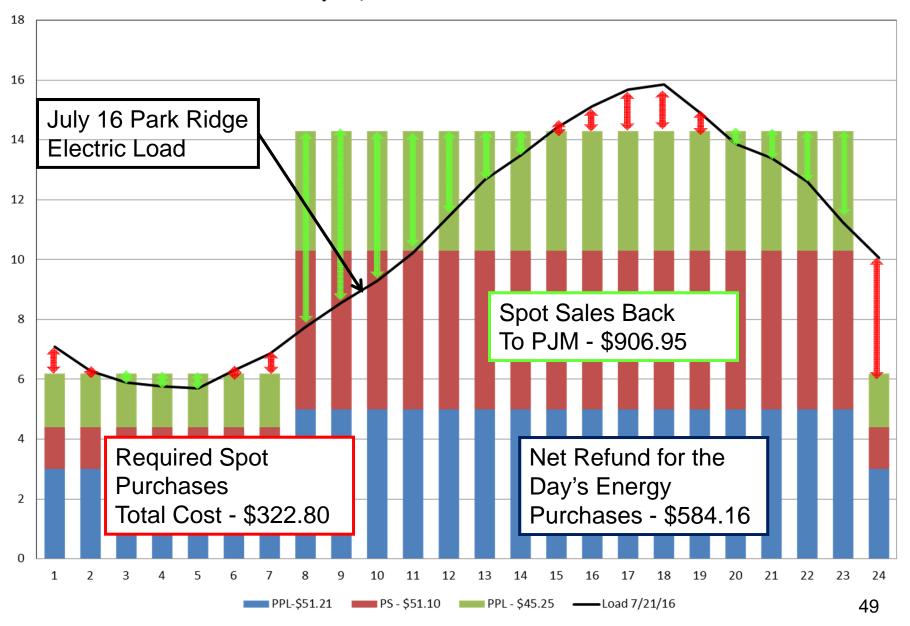
## Typical PJM Locational Marginal Pricing (LMP) Contour Map



July 16, 2016 Contract Purchases



July 16, 2016 Contract Purchases



## **Capacity Cost**

Capacity costs are what we pay throughout the year to assure that there is enough power produced in the entire grid during peak hours. Our capacity costs are set through PJM auctions. These auctions allow generators to bid their capacity for power supplied three year in advance. For all customers in our area, the price for capacity is based on the result of the auction in the PSE&G Zone. The following table summarizes the auction results and the effect on our annual costs.

	PJM Rate	Park Ridge		
PJM Delivery Year	MW-Day	<b>Annual Cost</b>		
June 2012 to May 2013	\$139.73	\$1,020,029		
June 2013 to May 2014	\$245.00	\$1,788,500		
June 2014 to May 2015	\$170.95	\$1,247,935		
June 2015 to May 2016	\$166.51	\$1,215,523		
June 2016 to May 2017	\$224.64	\$1,639,872		
June 2017 to May 2018	\$205.78	\$1,502,194		
June 2018 to May 2019	\$215.97	\$1,576,581		
June 2019 to May 2020	\$116.79	\$852,567		
Park Ridge Peak Load	20 MW			

### **Transmission Costs**

Transmission costs are what we pay PJM for the operation, maintenance, and expansion of the regional transmission grid. The cost for transmission is regulated by the Federal Energy Regulatory Commission (FERC). FERC has approved a number of large projects for PSE&G and the costs are updated and adjusted each year beginning January 1. Due to these major improvements, our transmission costs have increased significantly over the past few years.

## PSE&G announces it will spend \$10 billion on transmission line upgrades



Public Service Electric & Gas at work last year on a high-voltage transmission line in Livingston, part of the North Central Reliability Project. Today, PSE&G announced it would spend \$10 billion over the next five years to upgrade its transmission lines. Start-edger file photo.

Public Service Electric & Gas today announced a capital investment of \$10 billion over the next five years, mostly to upgrade its high-voltage transmission lines.

## TRANSMISSION PLAYING LARGER PART IN PSE&G PLANS -- AND CUSTOMER BILLS

TOM JOHNSON | FEBRUARY 21, 2014

In earnings call, PSEG chief says transmission projects now account for more than one-third of its utility's business



PSE&G's investments in upgrading its transmission lines are playing a bigger part in its business plan and its profits. Most likely they also mean higher bills for Public Service Electric & Gas customers.

In a quarterly earnings call, the Newark company yesterday disclosed its expenditures on transmission projects now account for 36 percent of the utility's rate base, up from 28 percent the

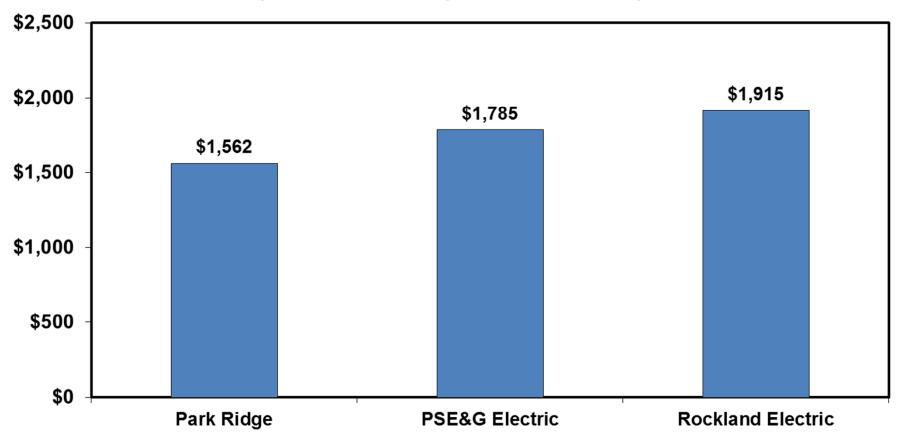
previous year. The rate base largely determines what the utility earns from its customers and how much they have to pay.

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<b>Transmission</b>	592,446	556,641	789,063	1,093,690	1,374,484	1,165,237	1,609,000
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		Percentage	of Total Co	st Compari	son		
	2011	2012	2013	2014	2015	2016	2017
Energy	70%	72%	62%	62%	60%	57%	51%
Capacity	17%	16%	24%	21%	18%	24%	24%
Transmission	9%	8%	11%	15%	19%	17%	24%
Others	5%	4%	3%	2%	3%	2%	1%

## Annual Residential Electric Cost Comparison (based on average residential bill)



Park Ridge rates are 13% lower than PSE&G Park Ridge rates are 18% lower than Rockland

# Collective Bargaining Agreements Settled with Utility, Public Works and Office Staff

- Electric and Water operations staff (PRUEA)  $\frac{1}{1/15}$  to  $\frac{12}{31/18}$
- Public Works operations staff (UPSEU)  $\frac{1}{1/5}$  to  $\frac{12}{31/18}$
- Borough Hall Office (UPSEU) 1/1/15 to 12/31/17

### **Possible Rate Action**

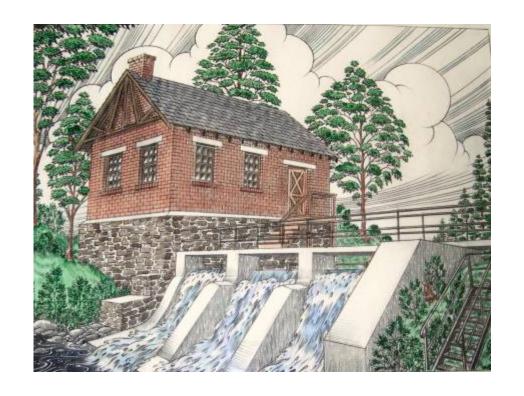
### **Electric Department Factors:**

- Decrease in this year's wholesale energy costs offset by large increase in transmission costs.
- Less surplus used to balance 2017 budget.
- No increase in base rate expected for 2017.

## **Water Department Factors:**

- Increase in water treatment costs.
- Capital Outlay in operating budget increased to typical level.
- Capital expenditures.
- Increase in Deferred Charge due to purchase of resin for Well 10 treatment facility in 2016.
- No increase in rates expected for 2017.

## **COMMENTS**



**Questions?**