



**PASCOAG**  
UTILITY DISTRICT

Pascoag Electric • Pascoag Water

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# RIPUC Docket 4585 Pascoag Utility District's Demand Side Management Program 2016

**Pascoag Utility District  
Electric Department**

In Re: Pascoag Utility District's  
Demand Side Management Program-2016

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November 6, 2015

Ms. Luly Massaro  
Clerk of the Commission  
Rhode Island Public Utilities Commission  
89 Jefferson Blvd.  
Warwick RI 02888

Re: RIPUC Docket No. 4585

Dear Ms. Massaro:

On behalf of Pascoag Utility District (“Pascoag” or the “District”), we herewith file an original and nine copies of Pascoag’s proposed Demand Side Management Program for 2016. This submission includes Pascoag’s Executive Summary, Program Details for 2016, reconciliation of 2015 DSM activities and budget, and other schedules that support this docket.

If you have any questions please do not hesitate to contact me.

Very truly yours,

  
Desarae Dolan  
DSM Coordinator

Cc: Ms. Karen Lyons, Esquire  
Mr. William Bernstein, Esquire

**Pascoag Utility District**  
**Demand Side Management Programs - 2016 Proposed Budget**

Estimated carry over from 2015	\$	23,945
Estimated sales for 2016	\$	112,652
Net 2016 budget	\$	136,597

**2016 Proposed  
Budget**

<b>Residential Program</b>		
DR1601	ENE Residential Conservation (ECHO)	\$ 2,580 12 month @ \$215
DR1602	Home Energy Audits with Incentives	\$ 4,875 15 Audits @ \$225, with 10% rebates up to \$100
DR1603	Energy Star Appliance Rebates	\$ 9,000 Up to 106 incentives
DR1604	Refrigerators/Freezer Buy Back	\$ 1,050 \$50 incentive & \$20 removal fee for a Refrigerator or Freezer; up to 15 rebates
DR1605	Energy Efficient Windows/Doors	\$ 2,500 Up to 166 window at \$15 or up to 62 doors at \$40
DR1606	Heating System Incentive	\$ 3,000 12 Rebates at \$250
DR1607	ENERGY STAR qualified Water Heaters	\$ 900 6 Rebates at \$150
DR1608	Energy Star Lighting fixtures& ceiling/ventilation fans	\$ 1,000 Up to 20 rebates at \$50 maximum
DR1609	Home Office Equipment/Home Electronics	\$ 2,500 50 Rebates at \$50
DR1610	Geothermal System	\$ 100 To keep the line item open
DR1611	New Construction	\$ 1,000 2 Rebates up to \$500 maximum
DR1612	Central Air Conditioning	\$ 1,500 5 Rebates up to \$300 maximum
DR1613	Change a Light Campaign	\$ 1,000 20 Rebates up to \$50 maximum
DR1614	Smart Power Strips	\$ 200 25% rebate ( average cost is between \$27-\$37)
DR1615	ENERGY STAR Pool Pumps	\$ 500 10% of cost up to \$100 maximum; 5 Rebates
DR1616	Desk Calendars- with DSM rebate information	\$ 900 450- Desk Top Calendars with DSM rebate information
DR1617	Committed for 2015 Programs	\$ 2,000 To accommodate programs with depleted funds from 2015
<b>Net Residential</b>		<b>\$ 34,605</b>
<b>Industrial/Commercial</b>		
DI1601	Energy Star Incentive - Office Equipment	\$ 500 10 Rebates up to \$50 maximum
DI1602	Burrillville School Department	\$ 25,000 Occupancy sensors and LED installs
DI1603	Committed Funds- Lighting & EE Projects	\$ 12,000 Money to be available for Commercial & Industrial Energy Efficiency Projects.
DI1604	Consultation Fees	\$ 250 To consult with Rise, National Grid, & ENE
DI1605	Energy Star Commercial Appliance	\$ 700 2 Appliances up to a maximum of \$350
DI1606	LED Street Light Incentive	\$ 10,000 Public Street Lighting Project-the balance of a \$25,189 rebate
DI1607	Community Baptist Church	\$ 8,045 Relamp of LED tubes
<b>Net Industrial/Commercial</b>		<b>\$ 56,495</b>
<b>Administrative/Ad/Education</b>		
DA1601	Administrative	\$ 21,000 Administrative labor, mileage, supplies, training session with a luncheon for the CSR's
DA1602	Funds for Follow-up to Successful Programs	\$ 1,155 To be used on more successful programs
DA1603	Outreach/Education	\$ 8,200 Billing inserts, Culver conservation items, and the DEED membership.
DA1604	Jesse Smith Library Partnership	\$ 3,700 To partner with the Jesse Smith Library on an Energy Efficiency Project.
DA1605	Community Events	\$ 8,442 To promote Energy Efficient @ Community Events (Green Festival, Family Fair, ...)
DA1606	Energy Efficiency Management continuing education	\$ 2,500 Tuition, flight, hotel, meals, books, NEEP 2 day conference, and webinars
DA16507	Program Research and Development	\$ 500 Funds for future development of programs
<b>Net Administrative/Ad/Education</b>		<b>\$ 45,497</b>
<b>Estimated DSM 2016 Budget/ Expenses/ Balance</b>		<b>\$ 136,597</b>

**Pascoag Utility District**  
**Demand Side Management Programs - 2015 Approved Budget**

	<b>2015</b>	<b>2016</b>
Estimated carry over from 2014/2015	\$ 61,926	\$ 23,945
Estimated sales for 2015/2016	\$ 109,570	\$ 112,652
Net 2015/2016 budget	\$ 171,496	\$ 136,597

	<b>2015 Approved Budget</b>	<b>2016 Proposed Budget</b>	<b>Change in \$</b>	<b>% Change</b>
<b><u>Residential Program</u></b>				
ENE Residential Conservation (ECHO)	\$ 2,400	\$ 2,580	\$ 180.00	8%
Home Energy Audits with Incentives	\$ 3,600	\$ 4,875	\$ 1,275.00	35%
Energy Star Appliance Rebates	\$ 9,000	\$ 9,000	\$ -	0%
Refrigerators/Freezer Buy Back	\$ 1,035	\$ 1,050	\$ 15.00	1%
Energy Efficient Windows/Doors	\$ 2,500	\$ 2,500	\$ -	0%
Heating System Incentive	\$ 3,000	\$ 3,000	\$ -	0%
ENERGY STAR qualified Water Heaters	\$ 900	\$ 900	\$ -	0%
Energy Star Lighting fixtures& ceiling/ventilation fans	\$ 1,000	\$ 1,000	\$ -	0%
Home Office Equipment/Home Electronics	\$ 2,500	\$ 2,500	\$ -	0%
Geothermal System	\$ 100	\$ 100	\$ -	0%
New Construction	\$ 2,080	\$ 1,000	\$ (1,080.00)	-52%
Central Air Conditioning	\$ 1,500	\$ 1,500	\$ -	0%
Change a Light Campaign	\$ 750	\$ 1,000	\$ 250.00	33%
Smart Power Strips	\$ 200	\$ 200	\$ -	0%
ENERGY STAR Pool Pumps	\$ 500	\$ 500	\$ -	0%
Desk Calendars- with DSM rebate information	\$ 852	\$ 900	\$ 48.30	6%
Committed for 2014 Programs	\$ 2,000	\$ 2,000	\$ -	0%
			\$ -	
<b>Net Residential</b>	<b>\$ 33,917</b>	<b>\$ 34,605</b>	<b>\$ 688.30</b>	<b>2%</b>
<b><u>Industrial/Commercial</u></b>				
Energy Star Incentive - Office Equipment	\$ 500	\$ 500	\$ -	0%
Burrillville Municipal Buildings	\$ 21,837	\$ 25,000	\$ 3,163.00	14%
Committed Funds- Lighting & EE Projects	\$ 25,455	\$ 12,000	\$ (13,455.00)	-53%
Consultation Fees	\$ 1,000	\$ 250	\$ (750.00)	-75%
Energy Star Commercial Appliance	\$ 700	\$ 700	\$ -	0%
LED Street Light Incentive	\$ 35,997	\$ 10,000	\$ (25,997.00)	-72%
Community Baptist Church	\$ -	\$ 8,045	\$ 8,045.00	
			\$ -	
<b>Net Industrial/Commercial</b>	<b>\$ 85,489</b>	<b>\$ 56,495</b>	<b>\$ (28,994.00)</b>	<b>-34%</b>
<b><u>Administrative/Ad/Education</u></b>				
Administrative	\$ 21,000	\$ 21,000	\$ -	0%
Funds for Follow-up to Successful Programs	\$ 2,148	\$ 1,155	\$ (993.00)	-46%
Outreach/Education	\$ 10,000	\$ 8,200	\$ (1,800.00)	-18%
Jesse Smith Library Partnership	\$ 3,700	\$ 3,700	\$ -	0%
Community Events	\$ 10,242	\$ 8,442	\$ (1,800.00)	-18%
Energy Efficiency Management continuing education	\$ 4,500	\$ 2,500	\$ (2,000.00)	-44%
Program Research and Development	\$ 500	\$ 500	\$ -	0%
			\$ -	
<b>Net Administrative/Ad/Education</b>	<b>\$ 52,090</b>	<b>\$ 45,497</b>	<b>\$ (6,593.00)</b>	<b>-13%</b>
<b>Estimated DSM 2015 Budget/ Expenses/ Balance</b>	<b>\$ 171,496</b>	<b>\$ 136,597</b>	<b>\$ (34,898.70)</b>	<b>-20%</b>

**Pascoag's 2016 Demand Side Management Program**  
**Executive Summary: Submitted by Desarae Dolan**

**Residential Programs:**

The Residential Programs proposed by Pascoag Utility District for 2016 will mirror our 2015 programs, with adjustments to some of the line items based on the activity of the programs over the past year.

The District continues its partnership with ENERGY STAR, a U.S. Environmental Protection Agency (EPA) voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency. It is the District's goal to encourage our customers to buy ENERGY STAR compliant products to help control consumption, demand, and reduce greenhouse gas emissions that are contributing to global warming. ENERGY STAR compliant appliances and electronics are being utilized as part of the solution to rising energy costs, and the need for energy efficiency to reduce greenhouse gas emissions. The ENERGY STAR programs that we have in place continue to experience a high customer demand.

However, the District will continue to monitor its programs and will seek permission to reallocate funds should certain programs not perform to expectations. The District is pleased with the activity in the programs for 2015. The District will be adjusting the 2016 line item budget according to this year's activity.

Energy New England ('ENE') - The energy hot line continues to be a very good resource for our residential customers. Customers with questions about high energy demand can call the toll free number for assistance. Many questions can be answered over the phone. The customer is also offered a home energy audit. Pascoag Utility District is a member of the Energy Advisory committee that meets three to four times a year and discusses the latest information on energy conservation issues. ENE also attended our annual Green Festival to discuss energy conservation and home energy audits with interested customers. The ENE fee is \$215 per month, for a total budget of \$2580.

ENERGY STAR Audits are a very useful educational tool for homeowners. ENE performed fourteen audits as of the end of October 2015. Each home owner was given a report on ways to save energy. Many of the upgrades that are suggested in the audits correspond with programs set up for rebates by the District. It is our finding that customers will take the report and over several years replace things like the boiler, windows, doors, appliances, light fixtures, and light bulbs, thereby taking advantage of the applicable rebates.

The District would like to continue to offer the home energy audits in 2016. The District would like to increase the number of audits to fifteen at a cost of \$225 each and have \$100 for each audit available for audit recommendations that are not covered by the rebate programs. The budget for this line item would increase to \$4,875.

Rebates for ENERGY STAR Appliances continue to be one of our most popular programs. The District has processed rebates totaling \$4,327.00 through the end of October. The District is proposing a budget of \$9,000 in 2016.

The District added a Refrigerator/Freezer Buy-Back Program in 2012. This program encourages our customers to reduce their power bills by removing an old inefficient refrigerator or freezer from their house. This will help cut the demand of each refrigerator/freezer that is removed and our customers save between 503 to 1,285 kWh annually. The District proposed a budget of \$1,035 in 2015 with an incentive of \$69.00. The District has processed \$692.01 through the end of October. In 2016, the District is proposing to slightly increase the budget to \$1,050 which will allow for 15 incentives. The rebate includes a removal fee of \$20.00.

The ENERGY STAR Window and Door incentive had an approved budget, of \$2,500.00 in 2015. The activity for this line item has been steady with incentives totaling \$2,025.00 being issued through October. The budget will remain at \$2,500.00 with a rebate of \$15.00 per window up to 10 windows and \$40 per door up to 2 Doors.

The ENERGY STAR Heating Systems program had an approved budget of \$3,000 in 2015. The District has processed 6 boiler rebates for a total of \$1,500.00 being issued through October. The District would like to continue to fund this line item at \$3,000 in 2016 and keep the rebate of 10% up to \$250.

The District would like to continue an incentive for the ENERGY STAR qualified Heat Pump Water Heaters and Energy Star Solar Water Heater in combination with an electric hot water heater. Heating water accounts for approximately 15% of a home's energy use. High efficiency water heaters use 10 to 50 percent less energy than standard models, saving homeowners money on their utility bills. The District has not processed any rebates currently for this line item but would like to keep this program open in 2016. The District would like to continue to offer a rebate of 15% with a maximum rebate of \$150; this would allow 6 incentives with a budget of \$900, in 2016.

ENERGY STAR Lighting Fixtures and Ceiling & Ventilations Fans had a budget of \$1,000 in 2015 and we have issued \$247.00 in incentives. The District would like to continue this line item again next year with a budget of \$1,000.

ENERGY STAR Home Office/Electronic equipment has an approved budget of \$2,500 and we have processed rebates totaling \$743.50. The District would like to fund this program at the same level in 2016.

The District seeks to retain the line for Geothermal Systems with a budget of \$100. This will allow us to leave the line item open should we have a request for a geothermal system.

New Construction rebates remain slow as a direct result of the economy. The District has not processed any New Construction rebates at this time. The District is requesting to decrease funding to this program to \$1,000. When the economy recovers and the construction of new homes continues, this line item will hopefully entice the contractors to install ENERGY STAR

qualified equipment, which will result in more efficient homes. The \$1,000 request will allow the District to process two rebates.

Central Air Conditioning had a budget of \$1,500 in 2015 and the District processed five rebates for a total of \$1,150. The District would like to continue to offer a tiered rebate for central air conditioning. The rebates range from \$200 - \$300. The District believes that a customer purchasing a unit with a higher SEER and EER rating should receive a larger rebate. The ductless mini-split heat pumps are becoming more popular. They are being used to replace air conditioners and heating in older homes. These units are 30% more efficient, give more comfort and control, and can deliver both cooling in the summer and heating in the winter with high efficiency. They are a great solution for additions to homes. In the cold climates, consumers are advised to retain a supplemental heating system in case back-up heat is needed on very cold days. The District will rebate based on the cooling seasonal energy efficiency rating (SEER) and energy efficiency ratio (EER). The District would like fund this program at the same level in 2016.

The District would like to continue the Change a Light Campaign. The program remains very active. The District processed \$754.93 in rebates out of a budget of \$750 in 2015. In 2016, the District would like to increase funding to \$ 1,000 due to the program's popularity.

In 2015, the District continued the Smart Power Strip incentive because today's electronics continue to draw electricity that we pay for but do not use. The "Smart" power strip prevents this waste by plugging the main device (computer, TV, etc.) into the primary outlet and its peripherals (printer/scanner or VCR/cable box, etc.) into the other outlets. When the main device is shut down the high-tech sensors detect this and shut everything else down. The Smart power strips can save up to 72% of the energy a system uses, eliminating 640 lbs. of CO<sub>2</sub> per year and also offers state-of-the-art surge protection. The District did not receive any applications for rebates for this line item. The District would like to continue to offer an incentive of 25% up to a maximum of \$25 with a budget of \$200, in 2016.

The District would like to continue to offer an ENERGY STAR Pool Pump incentive although the District did not process any rebates this year. Many customers in the District's territory have pools, and each one of these pools use a pool pump which re-circulates water through a filter to maintain water clarity and hygiene. What most pool owners don't realize is how much energy their pool pumps are wasting. Pool pump speeds vary based on the pool's operation. A conventional pool pump with one speed is set to run at the highest speed required to clean the pool. This leads to wasted energy during filtration operations by running faster than necessary. The ENERGY STAR certified pool pumps can run at different speeds and be programmed to match the pools operation with its appropriate pool pump speed. The energy saved is considerable and will save thousands of dollars over its lifetime. On average, an ENERGY STAR pool pump in our area saves over 1,143 kWh or \$160 in a 6 month period from May through September, making the payback less than five years. They also run more quietly and help to prolong the life of the pool's filtering system. The District is proposing a rebate of 10% of the cost up to a maximum rebate of \$100; the proposed budget would be for \$500.



In 2015, the District purchased four hundred and fifty desktop Calendars with DSM rebate information for a total cost of \$880.59. The District was able to customize the calendar with a page dedicated to promoting the DSM programs and incentives that are offered. The calendars were distributed to the walk in customer. The District would like to purchase 450 desk top calendars in 2016 for a total budget of \$900.00

The District is estimating a carryover of \$23,945 from 2015; the District will use \$21,945 of this carryover in the 2016 budget and would like to place \$2,000 into a line item called Committed for 2015 rebates. This would allow us to use these funds to satisfy any outstanding qualified applications in the various residential programs, where the funds have been depleted or for rebates that are received after the books have been closed for 2015. In 2015, the District was able to satisfy \$1,620 in rebates that qualified in 2014, but the program funds were depleted. If the carry over funds placed in the Committed for 2015 Program exceeds the request for qualified rebates, the District proposes moving these funds to the Follow-up to Successful Programs line item and would then seek permission from the Public Utility Commission and Division of Public Utilities and Carriers, to reallocate the funds as needed in 2016.

### **Commercial and Industrial Programs:**

The ENERGY STAR Office Equipment and Electronics Program that was available to our commercial and industrial customers saw a slight decrease in activity this year. We have processed four rebates totaling \$152.00. The District would like to continue this program with the same level of funding for 2016, with \$500.

#### **Burrillville Municipal Buildings**

The District has been working with the Town of Burrillville to convert their street lighting from high pressure sodium lights to LED technology. Currently they've received a rebate for \$200.00 on one streetlight that was retrofitted. We are hopeful that the Town of Burrillville and the Board of Administration will complete the LED streetlight projects in 2015 which will give them an incentive of \$15,933 between both projects.

The Burrillville School Department also completed a project that included LED exterior exit lighting and occupancy sensors for the Burrillville High School. They received \$2,700 in incentives.

#### **Burrillville School Department**

In 2016, the line item for Burrillville Municipal Buildings will be changed to the Burrillville School Department. The Burrillville School Department is in the process of creating estimates for an occupancy sensor and LED install project for their remaining schools in 2016. We estimate they will receive \$25,000 in incentives if they complete this project in 2016. The District would like to fund this program with \$27,597.

Committed Funds Lighting and Energy Efficiency Projects completed in 2015:

As of this filing the District has completed seven lighting projects, totaling \$24,752.72 in rebates.

- Harrisville Fire Department spent \$10,134.72 on retrofitting lighting and received a rebate of \$4,438.00. They will save 18,157 kWhrs annually and will reduce their kW by 3.33.
- GS Inc. received a \$500.00 rebate for their installation of two central air conditioning units.
- The Pascoag Utility District Water Station spent \$3,232.80 on converting old lighting to 16 new LED fixtures. The District received a rebate in the amount of \$1,293.12 and will save over 2,583 kWhrs annually.
- Niko Chalkidakis spent \$5,265.00 on replacing 150 lights with LEDs and completed another project, spending \$2,996.00 on twenty LED fixtures. He will save 21,450 kWhrs annually between the two projects and received a rebate totaling \$3,903.60.
- Harrisville Fire District spent \$1,870 on an office lighting project that will save them 2,376 kWhrs annually. They received a \$611.00 incentive on the project.
- Burrillville School Department completed an LED lighting project at Austin T. Levy School saving 18,702 kWhrs per year. They received a rebate totaling \$13,980.

The District has identified two potential projects for 2016 that would be funded through the Committed Funds Lighting and Energy Efficiency Projects line item:

- Pat's Service Station is undergoing an energy audit and would like to do a lighting project next year.
- Brigido's IGA is undergoing an energy audit and is looking at energy efficiency projects for 2016.

The District would like to propose \$12,000 for this program in 2016.

The Consultation fees line item was funded at \$1,000 to provide assistance from National Grid, RISE Engineering, or Energy New England with the calculation of energy savings on commercial and industrial projects. In 2016, we would like to decrease funding of this line item to \$250.

The ENERGY STAR Commercial Appliances program has processed one rebate, in 2015 that consisting of 1 dehumidifier. In 2016, the District is requesting a budget of \$700 for commercial appliances with rebates of 10% up to \$350 and residential appliances using the same amounts from the residential program and making them available under this line item for the commercial customers.

In 2015, Pascoag Utility took the balance of the approved LED Streetlight incentive from the 2014 budget which was \$17,684. This money was used along with money from the District's Capital Account to purchase (250) - 24 watt LED Street and (3) Decorative Street Lights. The total LED project cost will be \$87,005 which includes materials, labor, and transportation. Please see the table below for cost and the annual kilowatt-hour savings from this project.

TYPE of Fixture	Number purchased:	Material Cost	Labor Cost	Transportation Cost	Annual kWh Saving
24 Watt LED SL	250	\$51,000	\$24,425	\$10,000	48,435
72 Watt LED Decorative SL	<u>3</u>	<u>\$ 1,580</u>	<u>\$ 295</u>	<u>\$ 120</u>	<u>1,564</u>
TOTAL	253	\$52,580	\$24,720	\$10,120	49,999 kWh

District staff is currently installing the fixtures. The project qualifies for a 50% rebate of \$43,502 from the DSM program. The approved budget for the LED Street Light Incentive was \$35,997 in 2015. We received \$17,684, leaving a balance of \$18,313 which we will use in 2015 toward this project. This will leave a rebate due to the District of \$25,189. The DSM budget for the 2016 DSM programs had to be reduced because we are anticipating a much lower carry over from 2015. We can only fund the LED Street Light Project to \$10,000, in 2016 and would take these funds towards our incentive. If the identified projects for 2016 do not materialize or should the carry-over be more than anticipated then we would seek permission from commission to reallocate more funds to the LED Street Light Program and take the remaining \$15,189 rebate balance, in 2016.

The District would like to add a new program with the Community Baptist Church and fund this program with \$8045. The Community Baptist Church is planning on a relamping with LED tubes project. They would save 12,295 kwhrs annually. The estimated rebate would be \$8,045.

### **The Administration/Ad/Education**

The District staff spends many hours reconciling the budgets, processing rebates, working with potential rebate customers, reporting to the State of Rhode Island's Public Utility Commission, and researching new programs. The budget for the Administration line item was \$21,000 which covers the time spent to oversee this most worthwhile endeavor. The District will continue the annual training session for the customer service representatives to ensure they are able to discuss the criteria for the various programs with the customers; this training session would also include a luncheon. The District would like to fund this program at the same level in 2016.

Funds for Follow-Up to Successful Programs- this program has allowed the District to move funds to the more successful programs as needed. The District will be using this line item to fund additional energy audits and Change a Light rebate requests as those funds have been depleted. The District would like to keep this line item open in 2016 with a budget of \$1,155.

Outreach/Education Program - The District purchased an annual DEED membership through American Public Power. The membership gives the District access to energy efficiency trainings and resources. The District used some of the funds to purchase energy conservation materials from Culver and Walker Clay Co.

The District would like to continue the Outreach and Education line item in 2016 and fund it with \$8,200. This will allow the District to update the website with the programs for 2016 at [www.pud-ri.org](http://www.pud-ri.org). The District would also use some of these funds for advertisements in the Bargain Buyer, utilize bill inserts with our programs in 2016, and purchase energy efficiency material to educate our customers, which will include booklets on energy efficiency, along with energy conservation materials purchased at Culver Company and Walker Clay Co. The District would also like to purchase a 2016 membership to the Demonstration of Energy Efficiency Developments Program (DEED).

Jesse Smith Library Partnership- the Jesse Smith Memorial Library in conjunction with Burrillville Recycling and the Pascoag Utility District encouraged students in grades K-6 to create Earth Day Posters depicting why it is important to recycle and conserve energy in Burrillville. A total of twelve winning posters were chosen to be included in a 2016 calendar which will contain energy conservation and recycling tips. An awards ceremony was held on April 22, 2015 to recognize the winners of the contest. The District would like to continue to fund this line item at \$3,700. This would allow the District staff to create and purchase energy conservation and recycling calendars for 2016 and help host the awards ceremony with the Library and Burrillville Recycling.

Community Events -The 9<sup>th</sup> Annual Public Power Green Festival was hosted on Saturday, September 19, 2015. The District partnered with the Town of Burrillville's Parks and Recreation Department to host the event at the Still Water Mill Center. The first five-hundred customers received insulated lunch bags filled with energy efficient materials and recycling tips. There were activities for children, which included a coloring contest, decorating door hangers, bucket rides, face painting and games. This year we included a workshop component that included free classes on renewable energy, composting and beekeeping. All workshop instructors volunteered their time for the event.

Many vendors attended the Green Festival this year and a list of vendors has been included in this filing under Schedule H along with a map of the event. This event continues to grow each year. The District hosted a booth which provided customers with energy conservation handouts and a free CFL light bulb for the adults. The District's staff also helped out at the welcome booth, on the table with raffle items, and with rides on the bucket truck. The raffle items were donated by the vendors and local businesses to raise money for the Weekend Back Pack Project, a nonprofit agency that helps children in need. The event was very successful and by sharing the cost with the Town, the District was able to attend other events in the community.

In 2016, the District would like to continue the line item for community events in the amount of \$8,442. We will continue to partner with Burrillville Parks and Recreation to host the Green Festival which allows the event to be more cost efficient. The partnership saves the District money which in turn allows the District to host energy efficiency workshops at the farmers market during the summer season, and attend the Family Fair.

Energy Efficiency Management Continuing Education-In 2015, the previous DSM coordinator was unable to attend the APPA Academy due to the training of a newly appointed DSM coordinator. She was able to attend the NEEP, NEPPA and APPA conferences. The District has two long time employees retiring in 2015 and time has been allocated to extensive training for the remaining staff.

The District would like to fund the Energy Efficiency Management Education line item at \$2,500 in 2016. This would allow the newly appointed DSM coordinator to participate in training courses on energy efficiency, and give her the opportunity to attend the NEEP and NECA conferences in 2016. She will also need to work towards obtaining the Energy Efficiency Certificate in the future. Twenty hours of continuing education in the energy efficiency field is required every two years to maintain the Energy Efficiency Certificate.

Program Research and Development was created when the District wanted to research LED Street lights. The line item gives the District the ability to research products for possible incentives. The District would like to fund this line item with \$500 in 2016.

Pascoag's proposed budget is based on a forecast of Sales for 2016 of 56,326,000 kWhrs. The estimated budget is \$136,597.00 for 2016. The District anticipates a \$23,945 carryover fund from 2015 which would bring the total 2016 budget to \$136,597.

**2016 Program Details- Residential, Commercial and Industrial,  
Administrative/Ad and Customer Education and Outreach**

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***Residential Programs***

In 2016, Pascoag plans to continue all of the current Residential Programs from 2015. The customer demand still continues and the District believes these programs will continue to be successful in 2016. This summary will detail the programs proposed for 2016 and will review the success of the 2015 programs.

**Energy New England – Residential Conservation Services \$2,580:**

Pascoag will continue its relationship with Energy New England (“ENE”) in 2016. The Residential Conservation Service (“RCS”) provides invaluable technical support to the District staff as well as its customers.

In addition to this support, ENE supplies fulfillment materials to the customers of the District. The materials include energy smart CD’s, conservation booklets, and reference materials and resources. ENE sponsors a toll free energy hotline that is available to customers during normal business hours. Pascoag refers customers with high consumption complaints to this hotline after performing a meter test to rule out a faulty meter. If the customers’ questions can not be resolved over the phone, ENE schedules a home energy audit which goes into greater detail as to how the customer can conserve energy. This year Pascoag tested over 22 meters<sup>1</sup> and sent letters to each customer referring these customers to the toll free energy hotline. ENE also attended the 9<sup>th</sup> Annual Green Festival. ENE answered energy related questions and handed out flyers on energy efficiency.

ENE also sponsors an Advisory Group. The Advisory Group includes people from several municipal utilities from the New England area. This group meets quarterly to share ideas on all aspects of energy conservation. Pascoag is a member of the Advisory Group.

The cost for this service will increase to \$215 per month in 2016.

**Audits with Follow-Up Incentives-\$4875:**

Pascoag would like to provide fifteen audits in 2016, along with a maximum rebate of \$100 for incentive follow-up. This would allow the following:

15- Audits @ \$225 each	\$3,375
Money available for 15 incentives @ \$100 each	\$1,500

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<sup>1</sup> Meters were proven to be within acceptable accuracy limits.

The cost of home energy audits has increased to \$225, in 2016. The increase is primarily due to fees associated with materials and increases in wages. Energy New England often suggests measures that include insulation for the walls and attic, weather stripping, pipe insulation, and electrical outlet insulation. The District does not have rebates for these items and would like to continue to offer a rebate of 10%, up to \$100 per customer, to encourage them to implement these recommendations. The suggested measures must be implemented in the same calendar year as the audit to qualify for the incentive and can not be a duplicate of a program already established for rebates.

The District has no auditors on staff, and has found it to be more cost effective to use ENE's certified auditors.

**ENERGY STAR Appliance Rebates: \$9,000**

Pascoag would like to fund this line item at \$9,000 in 2016. This program continues to be one of our most popular programs.

When a customer purchases an appliance, there are two price tags for the item: what you pay to take it home and what you pay for the energy and the water it will use. ENERGY STAR compliant models typically use 10-50% less energy and water compared to the standard models.

<b>Energy Star Appliance:</b>	<b>Savings:</b>
Clothes Washer	40%-50% less energy and 55% less water
Dehumidifier	15% less energy
Dishwasher	41% less energy
Refrigerator and/or Freezer	15% less energy
Air Conditioner	15% less energy
Clothes Dryer	20% less energy

There are multiple benefits to using ENERGY STAR qualified appliances. First they save customers money by using less energy. They help to reduce greenhouse gas emissions and also aid in the fight against climate change.

Additionally many of the District's customers call before making an appliance purchase to make sure the models they are interested in qualify for rebates.

<b>2016 Proposed Appliance Rebate Program</b>	<b>Incentive</b>
Refrigerator, freezer, clothes washer and electric clothes dryer	10% not to exceed \$75.00
Dishwasher or air purifier	10% not to exceed \$50.00
Air conditioner	10% not to exceed \$25.00
Dehumidifier	10% not to exceed \$20.00

**Refrigerator/Freezer Buyback Program: \$1,050**

The District would like to continue the refrigerator/freezer buyback program in 2016. This program encourages our customers to reduce their power bills by removing an old inefficient refrigerator or freezer from their house. The Energy Star web site estimates there are more than 60 million refrigerators over ten years old that cost consumers \$4.7 billion dollars a year in energy costs. The District increased the incentive from \$50 to \$70 to offset the recycle charge in 2015 which increased the activity for this program. The District would like to increase the budget in 2016 to allow the removal of 15 refrigerators or freezers and ensure that they don't end up back on the grid in someone else's home. A second refrigerator/freezer removal program will cut demand and reduce the residential energy consumption.

The customer must contact the District office so we can verify the following requirements for a second refrigerator or freezer:

- They must be between 10 to 30 cubic feet using inside measurements.
- The refrigerator or freezer must be in working order.
- The customer will fill out a form with the model and make of the refrigerator/freezer and give the approximate age.

Once the criteria are met, the customer will be instructed to call Waste Management at 1-800-972-4545 to schedule an appointment to pick up the appliance. After the pickup is verified, the customer will receive a \$70 rebate which will be applied to their electric account.

The District would like to increase the funds to this line item to \$1,050; a rebate of \$50 and a removal fee of \$20 will allow us to process 15 incentives.

**ENERGY STAR Windows/Skylights and Doors Incentive: \$2,500**

The budget for 2015 was \$2,500 and by October the District has processed \$2,025 in rebates. The District would like to keep the funding at the same level in 2016. When a customer purchases ENERGY STAR compliant windows, doors and sky lights for the northern area, they will realize energy savings in lower energy use. These windows and doors also help reduce heat loss in winter and offer protection from the summer sun, and reduce condensation and interior fading. ENERGY STAR qualified



windows, doors and skylights keep your home cooler in the summer and warmer in the winter.

The District will keep the incentive at \$15 per window, up to a maximum of ten windows per customer and \$40 per door, allowing two doors per customer. To qualify all windows and doors must meet energy efficiency standards:

WINDOWS				SKYLIGHTS			
CLIMATE ZONE	U-FACTOR <sup>1</sup>	SHGC <sup>2</sup>		CLIMATE ZONE	U-FACTOR <sup>1</sup>	SHGC <sup>2</sup>	
Northern	≤ 0.30	Any	Prescriptive	Northern	≤ 0.50	Any	
	≥ 0.31	≥ 0.35		Equivalent Energy Performance	North Central	≤ 0.53	≤ 0.35
	≥ 0.32	≥ 0.40			South Central	≤ 0.53	≤ 0.28
North Central	≤ 0.30	≤ 0.40		Southern	≤ 0.60	≤ 0.26	
South Central	≤ 0.30	≤ 0.25					
Southern	≤ 0.40	≤ 0.25					

Air Leakage ≤ 0.3 cfm/ft<sup>2</sup>  
<sup>1</sup> Btu/h ft<sup>2</sup>·F  
<sup>2</sup> Solar Heat Gain Coefficient

DOORS			
GLAZING LEVEL	U-FACTOR <sup>1</sup>	SHGC <sup>2</sup>	
Opaque	≤ 0.17	No Rating	
≤ ½-Lite	≤ 0.25	≤ 0.25	
> ½-Lite	≤ 0.30	Northern North-Central	≤ 0.40
		Southern South-Central	≤ 0.25

Air Leakage for Sliding Doors ≤ 0.3 cfm/ft<sup>2</sup>  
 Air Leakage for Swinging Doors ≤ 0.5 cfm/ft<sup>2</sup>

**ENERGY STAR Heating System Incentives: \$3,000**

The District would like to continue the funding for heating system replacement at \$3,000, in 2016. The District issued 6 rebates totaling \$1,500 as of October of 2015.

With the price of fuel to heat a home today, many homeowners are replacing their older systems with ENERGY STAR compliant gas and oil boilers/furnaces and making every drop of fuel count. Although these products are expensive to purchase up front, the cost difference is paid back over time through lower energy bills.

The ENERGY STAR compliant oil and gas furnaces have annual fuel utilization efficiency (AFUE) ratings of 85% and 95%, making them up to 16% more efficient than standard models. These furnaces are estimated to save customers between \$66 and \$94 in energy costs per year.

ENERGY STAR qualified boilers have annual utilization efficiency (AFUE) rating of 87% or greater. Whether the fuel is gas or oil, they are 12% more energy efficient than standard models. They achieve greater efficiency with improved features like electronic ignition that eliminates the need to have a pilot light burning all the time; new combustion technologies that extract more heat from the same amount of fuel; and sealed combustion that uses outside air to fuel the burner, reducing drafts and improving safety.

The District would like to keep the incentive at \$250 in 2015. This will allow twelve customers to take advantage of this program.

#### **ENERGY STAR Solar and Electric Heat Pump Water Heaters: \$900**

The District would like to continue to offer an incentive on ENERGY STAR qualified solar hot water heaters and ENERGY STAR heat pump water heaters. The potential for savings are listed below:

ENERGY STAR Solar Water Heaters can be used in combination with another back-up system. Using the sunshine to heat or preheat the water in combination with an electric tank water heater as backup will save \$280 a year on the electric bill and \$5,200 over the lifetime of the water heater.

ENERGY STAR Heat Pump Water Heaters can save the average household \$330 per year and 2,690 kWhrs compared to a standard electric hot water heater.

The District did not process any rebates through October but would like to continue to fund this program at the same level. An incentive of 10% of the cost, not to exceed \$150 will allow us to process six incentives in 2016.

#### **ENERGY STAR Lighting Fixtures/Ceiling and Ventilation Fans: \$1,000**

The District would like to fund this program at the same level in 2016. We would like to continue the fifty percent rebate on lighting fixtures and ENERGY STAR ceiling and ventilation fans. The District processed 5 rebates totaling \$247, as of October 2015.

ENERGY STAR qualified lighting fixtures use one-quarter less energy than traditional lighting. They distribute light more efficiently and more evenly than the standard fixture. They come in hundreds of decorative styles including portable

fixtures like table, desk and floor lamps, and hard-wired fixture options like front porch, dining room, kitchen ceiling and under-cabinet, hallway ceiling and wall bathroom vanity fixtures and ceiling fan lighting fixtures. Many fixtures have convenient features such as dimming on some indoor models and automatic daylight shut-off and motion sensors on outdoor models.

ENERGY STAR ceiling fans/light combination units use 70% less energy than standard models. They operate with less noise, have high performance motors, and improved blade design that provides better performance.

The incentive will remain at 50%, with a cap of \$50.

### **Home Office Equipment/Home Electronics: \$2,500**

The District would like to fund this line item at \$2,500 in 2016. The incentives for this line item will remain 15% of the cost, up to a maximum rebate of \$50. The District has processed \$743.50 in rebates through October. The District feels that the demand for office and electronic rebates will continue to be strong especially in the month of December.

ENERGY STAR compliant office equipment such as computers, monitors and imaging equipment like printers and copiers help to eliminate waste through special energy efficient designs. They use less electricity and when they are not in use enter into a low-power mode. The specifications for many office products continue to change making it more difficult to earn the ENERGY STAR label. The products now use 30-75% less electricity than standard equipment. The products that fall under office equipment are: computers, laptops, copiers, fax machines, digital duplicators, external power adapters, notebook computers/tablet PC's, mailing machines, computer monitors, digital picture frames, printers, scanners, all in one units, water coolers, and computer servers.

A home equipped with TVs, a Blu-Ray player, a compact audio system, a cordless telephone and a home theatre in a box that have earned the ENERGY STAR, can save nearly \$200 over the life of the products. If each TV, DVD, and home theatre system purchased in the U.S. this year earned the ENERGY STAR, we would save nearly \$150 million and prevent nearly 2 billion pounds of greenhouse gas emissions every year, equal to the emissions from more than 175,000 cars. ENERGY STAR certified audio/video equipment is up to 50% more efficient than conventional models. Blu-Ray players that earn the ENERGY STAR label are, on average, 45% more efficient than conventional models.

The products that fall under home electronics are audio/video such as Home-Theater-in-a-box systems, audio amplifiers, AV receivers, shelf systems, DVD players, Blu-ray disc players, docking stations for audio amplification or optical disc drive functions, battery charging systems such as cordless power tools, cordless yard care tools, hand held vacuums, personal care products, digital-to-analog converter boxes,

cordless phones, and combination units, external power adapters, televisions and set-top boxes imaging equipment.

The District would like to fund this line item at \$2,500 with a rebate of 15% not to exceed \$50.

**Incentives for Geothermal Systems or a Ground Source Heat Pump (GHP): \$100**

Although the District has no firm commitments for this line item, we would like to continue to keep the line item open because of the potential savings.

The geothermal heat pumps are similar to ordinary heat pumps, but they use the ground instead of the outside air to provide heating, air conditioning and hot water. By using the earth's natural heat they are among the most efficient and comfortable heating and cooling technologies currently available. They use about 45% less energy than a standard heat pump, and they are quieter than a conventional system. ENERGY STAR certified heat pumps must meet the following specifications:

Table 1: Tier 1 Requirements (Effective December 1, 2009)		
Product Type	EER	COP
<b>Water-to-Air</b>		
Closed Loop Water-to-Air	14.1	3.3
Open Loop Water-to-Air	16.2	3.6
<b>Water-to-Water</b>		
Closed Loop Water-to-Water	15.1	3.0
Open Loop Water-to-Water	19.1	3.4
<b>DGX</b>		
DGX	15.0	3.5

Table 2: Tier 2 Requirements (Effective January 1, 2011)		
Product Type	EER	COP
<b>Water-to-Air</b>		
Closed Loop Water-to-Air	16.1	3.5
Open Loop Water-to-Air	18.2	3.8
<b>Water-to-Water</b>		
Closed Loop Water-to-Water	15.1	3.0
Open Loop Water-to-Water	19.1	3.4
<b>DGX</b>		
DGX	16.0	3.6

Product Type	EER	COP
<b>Water-to-Air</b>		
Closed Loop Water-to-Air	17.1	3.6
Open Loop Water-to-Air	21.1	4.1
<b>Water-to-Water</b>		
Closed Loop Water-to-Water	16.1	3.1
Open Loop Water-to-Water	20.1	3.5
<b>DGX</b>		
DGX	16.0	3.6

The District would like to keep this line open should there be any future requests. Geothermal heat pumps also qualify for tax credits of 30% of the cost with no upper limits through December 3, 2016.

The incentive would be 5% of the cost with a maximum rebate of \$350.

**New Construction Rebates: \$1,000**

The District has not processed any rebates in 2015 and is reducing funding for this program by \$1500.

This line item is an excellent way to encourage the contractors to upgrade to ENERGY STAR compliant windows, doors, skylights, heating systems, appliances, lighting fixtures, central air conditioning, and water heaters. Since the current building code in the town of Burrillville does not require the contractors to install Energy Star compliant products, the District feels this program is a great way to encourage energy efficiency in the construction process and to reduce the demand for electricity from these new housing developments.

The District would like to fund this program at \$1,000 in 2016.

The budget of \$1,000 will allow us to process two rebates with a cap of \$500 per unit /home.

**Central Air Conditioning: \$1,500**

The District has processed five rebates totaling \$1,150 in 2015. The District would like continue to fund this line item to \$1,500 in 2016.

About one-seventh of all the electricity in the US is used to air condition buildings. ENERGY STAR qualified central air conditioners have a higher seasonal efficiency rating (SEER) than standard models, which makes them 15 % more efficient than standard models. ENERGY STAR certified central air conditioners must meet the following specifications:

<b>Central AC / Air Source Heat Pump</b>	<b>SEER</b>	<b>EER</b>	<b>HSPF</b>	<b>Proposed Incentive Amount</b>
Single package	≥14.0	≥11		\$200
Split System	≥14.5	≥12	≥8.2	\$200
	≥15	≥12.5	≥8.5	\$250
	≥16	≥13	≥8.5	\$300
<b>Ductless Mini-split Heat Pump</b>	<b>SEER</b>	<b>EER</b>	<b>HSPF</b>	<b>Proposed Incentive Amount</b>
	≥16	≥12	≥8.2	\$200
	≥19	≥12.5	≥10	\$250
	≥20	≥13	≥10	\$300

The District is proposing a tiered incentive based on the efficiency of the cooling unit. This would allow up to 5 rebates.

**Energy Star Light Bulbs: \$1000**

The ENERGY STAR label on lighting means you are getting a product that is superior in energy efficiency. ENERGY STAR qualified compact fluorescent light bulbs (CFLs) use 70%-90% less energy than incandescent bulbs and last ten to twenty five times longer. ENERGY STAR decorative light strings use 70% less energy than conventional incandescent light strings, last ten times longer, and are cool to the touch. The ENERGY STAR qualified decorative light strings that feature LED technology are 90% more efficient. The electricity consumed by just one 7-watt incandescent bulb, can power 140 LEDs or enough to light a 25 foot string of LEDs.

The District proposes a rebate of 50% of the cost of the LED & CFL light bulbs with a cap of \$50 per customer. The District would like to increase funding for this program to \$1,000 due to its popularity.

**Desk Calendars with DSM Rebate Information: \$900**

In 2015, the District purchased 450 Desk Calendars that are personalized with information about the DMS rebates and directs our customers to our web site for applications. Customers enjoy the calendars and have the DSM rebate information in a useful location.

The District would like to continue this program and is proposing a budget of \$900 for this line item.

**“Smart” Power Strips: \$200**

Although the District did not receive any rebates for this program we would like to continue to offer an incentive on smart power strips. The power strips are a way to reduce the amount of power being drawn by computers and electronic accessories when they are not in use. The smart power strips monitor power consumption and can sense the difference between when a device is on or off and can shut the power off, eliminating the idle current being drawn from the item. Most smart power strips have two always-on outlets, a master control outlet and 2-6 controlled outlets that automatically turn off or on as the master appliance is turned on or off. Standby power costs the average U.S. household \$100 annually.

The incentive will remain at 25%, up to a maximum rebate of \$25.

**ENERGY STAR Qualified Pool Pump Program: \$500**

The District is proposing a rebate on ENERGY STAR qualified pool pumps which will include the two-speed and variable speed models that are listed on the ENERGY STAR web site.

The Department of Energy and Environmental Protection Agency has set new ENERGY STAR criteria for pool pumps. ENERGY STAR rated pool pumps use 30% - 72% less energy. The estimated cost savings from operating an ENERGY STAR efficient pool pump is \$160 per year, making the payback period less than three year.

The District has not processed any rebates for this item but is proposing keeping a rebate of 10 percent, not to exceed \$100. This would allow for 5 rebates in 2015.

**Committed for 2016 Programs: \$2,000**

The District is estimating a carryover of funds from 2015 in the amount of \$23,945. The District would like to use \$21,945 of these funds in the 2016 budget and use \$2,000 to satisfy 2015 qualified rebates for customers who do not receive a rebate because the funds for a particular program had been depleted in 2015 or for rebates that are turned in after the books are closed for 2015; the cutoff date for 2015 rebates would be February 15, 2016.

***Commercial and Industrial Programs***

**ENERGY STAR Incentive – Office Equipment/Electronics: \$500**

The District issued four incentives totaling \$152 through October of 2015. The District continues to promote this program. The District would like to continue this program at the same level of funding in 2016.

The office equipment and electronics have the same savings that are mentioned in the Home Office Equipment/Home Electronics program. The incentive will remain at 25% of the cost, with a cap not to exceed \$50.

***Industrial and Commercial Projects 2015:***

**Burrillville Municipal Buildings:**

The District has been working with the Town of Burrillville to convert their street lighting from high pressure sodium lights to LED technology. Currently they've received a rebate for \$200.00 on one streetlight that was retrofitted. We are hopeful that the Town of Burrillville and the Board of Administration will complete the LED streetlight projects in 2015 which will give them an incentive of \$15,933 between both projects.

**Committed Funds-Lighting and Energy Efficiency Projects:**

- Harrisville Fire Department spent \$10,134.72 on retrofitting lighting and received a rebate of \$4,438.00. They will save 18,157 kWhrs annually and will reduce their kW by 3.33.
- GS Inc. received a \$500.00 rebate for their installation of two central air conditioning units.
- The Pascoag Utility District Water Station spent \$3,232.80 on converting old lighting to 16 new LED fixtures. The District received a rebate in the amount of \$1,293.12 and will save over 2,583 kWhrs annually.
- Niko Chalkidakis spent \$5,265.00 on replacing 150 lights with LEDs and completed another project, spending \$2,996.00 on twenty LED fixtures. He will save 21,450 kWhrs annually between the two projects and received a rebate totaling \$3,903.60.
- Harrisville Fire District spent \$1,870 on an office lighting project that will save them 2,376 kWhrs annually. They received a \$611.00 incentive on the project.
- Burrillville School Department completed a LED lighting project at Austin T. Levy School saving 18,702 kWhrs per year. They received a rebate totaling \$13,980.



**Committed Funds 2016- Lighting and Energy Efficiency Projects: \$12,000**

The District would like to allocate funds to this line item in order to accommodate unidentified and identified projects. Often, businesses will approach the District after the file date, and ask to be considered for a rebate on a project. This line item gives the District a source of funds to work from, so we do not miss out on an opportunity to work with our business customers on energy efficiency projects.

The District would like to keep the rebates for lighting projects at 60% on retrofit projects and 40% on new lighting projects in 2016. These incentives have enticed customers to make the necessary changes to increase their energy efficiencies

The District would like to allocate \$12,000 to this line item and make the funds available on a first come first serve basis.

The District has identified the following projects for 2016:

- Pat's Service Station is undergoing an energy audit and would like to do a lighting project next year.
- Brigido's IGA is undergoing an energy audit and is looking at energy efficiency projects for 2016.

**Consultation fees: \$250**

National Grid, RISE Engineering and Energy New England continue to provide verification of savings on the commercial and industrial projects on an as needed basis. This line item will be reduced to \$250 from \$1,000.

**ENERGY STAR Commercial Appliances: \$700**

The District processed one rebate for an ENERGY STAR dehumidifier. The District would like to continue to offer the businesses the same rebate criteria as seen under the residential appliance program for residential appliances.

The following appliance would qualify for rebates:

Commercial Dishwashers that earn the ENERGY STAR rating on average are 40 % more energy efficient and 40% more water efficient than standard models.

Commercial Fryers that earn the ENERGY STAR rating are up to 30% more energy efficient than standard models. They also offer shorter cook times and higher production rates through advanced burner and heat exchanger designs.

Commercial Ice Machines that earn the ENERGY STAR rating are on average 12% percent more energy efficient and 23% more water efficient than standard models.

Commercial Hot Food Holding Cabinets that have earned the ENERGY STAR rating are 70% more efficient than standard models. Models that meet the requirements incorporate better insulation, reducing heat loss, and may also offer additional energy saving devices such as magnetic door gaskets, auto-door closures, or Dutch doors.

Commercial Griddles that earn the ENERGY STAR rating are about 10% more energy-efficient than standard models. A qualified grill can save 1,200 kWh annually.

Commercial Ovens that earn the ENERGY STAR rating are 20% more energy-efficient than standard models. These ovens can save 1,870 kWh annually.

Commercial Refrigerators & Freezers that meet the ENERGY STAR specifications will be 40% more energy efficient than a standard option because they are designed with components such as high efficiency compressors and improved coil design, electronically commutated motors, variable speed fans, and efficient interior lighting.

Commercial Steam Cookers, also known as compartment steamers that meet the ENERGY STAR qualifications are up to 60% more energy-efficient than standard models. They can save 11,500 kWh annually.

The District proposes a rebate of 10% with a cap of \$350 for commercial appliance or the following for the smaller Residential Appliances:

A commercial or industrial customer purchasing an ENERGY STAR compliant residential appliance will receive a rebate of up to 10% not to exceed the following for each appliance; refrigerator, freezer, clothes washer, and dryers up to \$75. A customer purchasing an ENERGY STAR compliant dishwasher or air purifier will receive an incentive up to \$50; an ENERGY STAR air conditioner will receive an incentive up to \$25; an ENERGY STAR dehumidifier will receive incentive up to \$20. The same savings would apply as listed under residential ENERGY STAR Appliance Rebates.

### **2016 LED Street Light Incentive: \$10,000**

In 2015, Pascoag Utility took the balance of the approved LED Streetlight incentive from the 2014 budget which was \$17,684. This money was used along with money from the District's Capital Account (Restricted Fund) to purchase (250) - 24 watt LED Street and (3) Decorative Street Lights. The total LED project cost will be \$87,005 which includes materials, labor, and transportation. Please see the table below for cost and the annual kilowatt-hour savings from this project.

Type of Fixture	Number purchased:	Material Cost	Labor Cost	Transportation Cost	Annual kWh Saving
24 Watt LED SL	250	\$51,000	\$24,425	\$10,000	48,435
72 Watt LED Decorative SL	<u>3</u>	<u>\$ 1,580</u>	<u>\$ 295</u>	<u>\$ 120</u>	<u>1,564</u>
TOTAL	253	\$52,580	\$24,720	\$10,120	49,999 kWh

District staff is currently installing the fixtures. The project qualifies for a 50% rebate of \$43,502 from the DSM program. The approved budget for the LED Street Light Incentive was \$35,997 in 2015. We received \$17,684, leaving a balance of \$18,313 which we will use in 2015 toward this project. This will leave a rebate due to the District of \$25,189. The DSM budget for the 2016 DSM programs had to be reduced because we are anticipating a much lower carry over from 2015. We can only fund the LED Street Light Project to \$10,000, in 2016 and would take these funds towards our incentive. If the identified projects for 2016 do not materialize or should the carry-over be more than anticipated then we would seek permission from commission to reallocate more funds to the LED Street Light Program and take the remaining \$15,189 rebate balance, in 2016.

**Community Baptist Church: \$8,045**

Community Baptist Church is planning on a relamping with LED tubes project. They would save 12,295 kwhrs annually. The estimated rebate would be \$8,045.

***Administrative/Ad/ Education***

**Administrative Expenses: \$21,000**

The funds will be used to pay for staff time, schools and seminars related to DSM, and reimbursement of mileage when employees use their private vehicles for DSM related activities.

Pascoag has two Customer Service Representatives who devote many hours to the DSM programs by working with the customers, taking the applications for rebates on the various programs and answering questions over the phone and in person. The DSM Coordinator spends many hours researching the compliance of the various rebates that are submitted, reconciling the DSM programs, and updating existing programs as well as creating new programs for the next year and requesting reallocation of funds. In addition, the Assistant General Manager works with the commercial and industrial customers on various C & I projects and performs site visits.

The District would also like to perform a training session with the Customer Service Representatives and include a luncheon again this year to train them on the latest criteria regarding DSM rebates for 2016.

The District would like to fund this line item at \$21,000 in 2016.

**Follow-Up to Successful Programs: \$1,155**

The District is requesting a line item to allow some flexibility in transferring funds up to ten percent to other programs with a high customer demand. If the carry over funds exceed our estimate, the District is proposing to move these funds to the Funds for Follow-up to Successful Programs line item in the 2016 budget. Any transfer would only be done with the Division's approval.

**Outreach/Education Program: \$8,200**

The District took several opportunities to educate the public on energy efficiency matters this year. We attended the Family Fair and tabled at the Burrillville Farmers Market with energy efficient information this summer. Customers were able to ask questions and have a staff member follow up on anything they needed additional info on. Customers received energy efficient information products that were purchased through Culver and Project Energy Savers LLC.

A budget of \$8,200 is requested, to use some of these funds to update the website in 2015, process bill inserts promoting the various programs, and to run advertisements in the local paper. We'd also like to purchase fulfillment materials, such as night lights, refrigerator thermostats and other conservation materials which will be given away at the District's Customer outreach events.

In addition, the District would like to purchase an annual subscription to the DEED Program again in 2016, this allows us to see what other utilities across the United States are doing in regards to energy efficiency projects.

**Jesse Smith Library Partnership - \$3,700**

The District partnered with the Jesse Smith Library and Burrillville Recycling for an Earth Day Contest which encouraged students grades K -8 to draw posters on why recycling and energy conservation was important. The top twelve posters were chosen for prizes and will be included in a 2016 Calendar with recycling and conservation messages. An awards ceremony was held at the library and each participant received a certificate issued by the Town Council.

In 2016, the District would again like to partner with the Jesse Smith Library and Burrillville Recycling. This would allow us to continue the partnership for an Earth Day Poster contest for both energy efficiency and recycling. A budget of \$3,700 is requested and would be used to help fund prizes, materials, labor, and refreshments for the awards ceremony and allow us to create calendars with the posters that will hang in customers' homes for twelve months.

**Community Events: \$8,442**

In 2015, funds were used to purchase supplies, create and distribute flyers for the Green Festival, change date/time on banners and signs and to pay for staff time at the 9<sup>th</sup> Annual Green Festival. Many hours were dedicated to the preparation of the event. The Pascoag Utility District partnered with the Town of Burrillville's Parks & Recreation Department and hosted the event at the Stillwater Mill Center at 100 Tinkham Lane. This partnership continues to very rewarding. The Festival had something for everyone. Festival goers learned about local products and ideas to help them conserve energy and create a more sustainable lifestyle. There were free crafts, face painting, games, and bucket truck rides for the children. The event was very successful at raising funds from a raffle for a local nonprofit agency called the Backpack Project. There were free workshops on renewable energy, composting and beekeeping. The weather for this event was beautiful and the attendance was very high.

The District would like to continue the line item for Community Events. The District will continue the partnership with the Town of Burrillville Parks and Recreation Department in hosting the Green Festival again next year. This will allow us to attend other events in the community where we can promote the DSM programs available to the District's customers.

The District will continue with the energy efficiency and sustainability workshops. The workshops allow us to promote available rebates and educate our customers on energy efficiency.

The District would like to fund this line item at \$8,442 in 2016.

**Energy Efficiency Education funds: \$2,500**

In 2015, due to the retirement of two long term employees and extensive training of remaining staff; the previous DSM coordinator was unable to attend the APPA Academy. She was able to attend the 2015 Northeast Industrial Efficiency Summit and Business Leaders Celebration, the NEPPA sponsored Customer Service conference and an APPA training. She also completed a certificate of training for Energy Audits & Assessments through Atlantic States. The newly appointed DSM coordinator will be participating in training courses on energy efficiency and work towards obtaining the Energy Efficiency Certificate in the future.

The District would like to fund this line item at \$2,500 in 2016.

**Program Research and Development: \$500**

The District would like to fund this line item with \$500 to have a source of funds to help develop future energy efficient programs.

**Pascoag Utility District**  
**Demand Side Management Programs - 2015 Expenses and Balances**

Actual carryover from 2014	\$ 61,926
Estimated sales for 2015	\$ 109,570
Net 2015 budget	\$ 171,496

**2015 Approved**

	Budget	Expenses	Balance	Notes
<b>Residential Program</b>				
DR1501	\$ 2,400	\$ 1,600.00	\$ 800.00	8 months (\$200/month)
DR1502	\$ 3,600	\$ 2,250.00	\$ 1,350.00	10 Audits (\$225/audit)
DR1503	\$ 9,000	\$ 4,327.00	\$ 4,673.00	15 air conditioners, 23 refrigerators, 2 freezer, 20 clothes washers, 20 dishwashers, 6 dehumidifiers, and 4 air purifiers.
DR1504	\$ 1,035	\$ 692.01	\$ 342.99	9 refrigerator buybacks
DR1505	\$ 2,500	\$ 2,025.00	\$ 475.00	6 doors and 128 windows
DR1506	\$ 3,000	\$ 1,500.00	\$ 1,500.00	6 boilers
DR1507	\$ 900	\$ -	\$ 900.00	no activity
DR1508	\$ 1,000	\$ 247.00	\$ 753.00	9 lighting fixtures
DR1509	\$ 2,500	\$ 743.50	\$ 1,756.50	10 televisions, 5 printers, and 6 laptop computers
DR1510	\$ 100	\$ -	\$ 100.00	no activity
DR1511	\$ 2,080	\$ -	\$ 2,080.00	no activity
DR1512	\$ 1,500	\$ 1,150.00	\$ 350.00	4 heat pumps and 1 ductless central air conditioning unit
DR1513	\$ 750	\$ 754.93	\$ (4.93)	419 LED Lightbulbs
DR1514	\$ 200	\$ -	\$ 200.00	no activity
DR1515	\$ 500	\$ -	\$ 500.00	no activity
DR1516	\$ 852	\$ 880.59	\$ (28.59)	450 calendars distributed
DR1517	\$ 2,000	\$ 1,620.00	\$ 380.00	1 clothes washer, 1 refrigerator, 3 dishwashers, 2 laptop computers, 1 desktop computer, 1 ductless air conditioner, 11 windows, 1 door, 2 energy audits and 1 boiler.
<b>Net Residential</b>	<b>\$ 33,917</b>	<b>\$ 17,790.03</b>	<b>\$ 16,126.97</b>	
<b>Industrial/Commercial</b>				
DI1501	\$ 500.00	\$ 152.00	\$ 348.00	1 printer, 1 television and 1 copier
DI1502	\$ 21,837.00	\$ 200.00	\$ 21,637.00	Burrillville Municipal Building Incentives
DI1503	\$ 25,455.00	\$ 24,725.72	\$ 729.28	HFD, GS Inc, PUD Water Station, and Niko Chalkidakis Projects
DI1504	\$ 1,000.00	\$ -	\$ 1,000.00	no activity
DI1505	\$ 700.00	\$ 20.00	\$ 680.00	1 dehumidifier
DI1506	\$ 35,997.00	\$ 35,997.00	\$ -	LED Street Lighting Project
<b>Net Industrial/Commercial</b>	<b>\$ 85,489.00</b>	<b>\$ 61,094.72</b>	<b>\$ 24,394.28</b>	
<b>Administrative/Ad/Education</b>				
DA1501	\$ 21,000	\$ 16,967.94	\$ 4,032.06	supplies, materials and labor
DA1502	\$ 2,148	\$ 70.00	\$ 2,078.00	2 Lightbulb rebates
DA1503	\$ 10,000	\$ 2,835.52	\$ 7,164.48	annual dues and conservation materials
DA1504	\$ 3,700	\$ 274.32	\$ 3,425.68	Supplies, food, and labor
DA1505	\$ 10,242	\$ 8,995.25	\$ 1,246.75	Supplies, food and labor
DA1506	\$ 4,500	\$ 936.04	\$ 3,563.96	Labor, mileage and conference fee
DA1507	\$ 500	\$ -	\$ 500.00	no activity
<b>Net Administrative/Ad/Education</b>	<b>\$ 52,090.00</b>	<b>\$ 30,079.07</b>	<b>\$ 22,010.93</b>	
<b>Estimated DSM 2015 Budget/ Expenses/ Balance</b>	<b>\$ 171,496</b>	<b>\$ 108,963.82</b>	<b>\$ 62,532.18</b>	

**Pascog Utility District**  
**Savings Associated with Completed Conservation Projects**  
**January-July 2015**

<b>Project</b>	<b>kWh Savings</b>	<b>Dollars (0.153/kwhr)</b>
Appliance Rebates 2015	11067.00	\$ 1,693.25
Appliance Rebates Committed 2014	854.00	\$ 130.66
Refrigerator/Freezer Buyback	4090.00	\$ 625.77
Home Office Equipment	386.00	\$ 59.06
Home Office Equipment Committed 2014	496.00	\$ 75.89
Commercial Office Equipment	322.00	\$ 49.27
Central Air Conditioning	3738.00	\$ 571.91
Central Air Conditioning Committed 2014	748.00	\$ 114.44
Lightbulb Rebates CFL & LED Bulbs	5334.00	\$ 816.10
<b>Total:</b>	<b>27035.00</b>	<b>\$ 4,136.36</b>

**Additional Projects:**

**Notes:**

Residential Boiler Replacements	Energy Cost Saved $\$142 \times 3 = \$426$ Energy Consumption Saved (MMBTU) $6 \times 3 = 18$ Energy Consumption (Gallons) $41 \times 3 = 123$
Residential Boiler Replacements Committed 2014	Energy Cost Saved $\$142$ Energy Consumption Saved (MMBTU) 6 Energy Consumption (Gallons) 41
Windows and Doors	
10 Homes repaced 94 windows	Replacing single pane windows would be a savings of \$3,400.00 annually Replacing double pane windows would be a savings of \$1,080.00 annually

**Committed Funds:**

Harrisville Fire Department	18,157 kWhrs saved annually
Pascoag Utility District Water Station	2,583 kWhrs saved annually
Niko Chalkidakis	21,450 kWhrs saved annually
Harrisville Fire Department-Office	2,376 kWhrs saved annually



**Pascog Utility District**  
**Savings Associated with Completed Conservation Projects**  
**August 2015-October 2015**

<b>Project</b>	<b>kWh Savings</b>	<b>Dollars (0.153/kwhr)</b>
Appliance Rebates 2015	8625.00	\$ 1,693.25
Appliance Rebates Committed 2014	0.00	\$ -
Refrigerator/Freezer Buyback	8942.00	\$ 1,368.13
Home Office Equipment	524.00	\$ 80.17
Home Office Equipment Committed 2014	0.00	\$ -
Commercial Office Equipment	0.00	\$ -
Central Air Conditioning	0.00	\$ -
Central Air Conditioning Committed 2014	0.00	\$ -
Lightbulb Rebates CFL & LED Bulbs	3665.00	\$ 560.75
<b>Total:</b>	<b>21756.00</b>	<b>\$ 3,328.67</b>

**Additional Projects:**

**Notes:**

Residential Boiler Replacements	Energy Cost Saved $142 \times 3 = \$426$ Energy Consumption Saved (MMBTU) $6 \times 3 = 18$ Energy Consumption (Gallons) $41 \times 3 = 123$
Residential Boiler Replacements Committed 2014	N/A

Windows and Doors

12 Homes repaced 34 windows and 6 doors      Replacing single pane windows would be a savings of \$3,400.00 annually  
Replacing double pane windows would be a savings of \$1,080.00 annually

**Committed Funds:**

Burrillville School Department      18,702 kwhrs saved annually

**Pascoag Utility District- Electric Department (“Department”)  
Demand Side Management Charge**

The following provisions will be apply to reflect charges collected under the Demand Side Management Program, pursuant to “An Act Relating to the Utility Restructuring Act of 1996”, #96-H 8124 Substitute B, Section 39-2-1.2(b).

The District proposes to include a charge of 2.3 mills per kilowatt-hour delivered to fund a demand side management program and renewable energy resources. The allocation of this revenue between demand side management programs and renewable energy resources shall be determined by the Commission.

The District will submit semi-annual reports to the Commission documenting funds collected and expended. In the event that revenue collected over or under anticipated revenue, the Department shall apply to the Commission for an annual “true-up”.

Approval Issued:

Requested Effective Date: January 1, 1998

Approval Date: March 20, 1998

# Estimate for Family Fair

## Expenses

		Estimate	Actual
<b>Total Expenses</b>		<b>\$1,915.18</b>	
<b>Labor</b>			
AS	\$151.44		
PC	\$178.74		
<b>Totals</b>	<b>\$330.18</b>		<b>\$0.00</b>
<b>Misc. Items/ Handouts</b>			
Culver Items	\$1,500.00		
<b>Totals</b>	<b>\$1,500.00</b>		<b>\$0.00</b>
<b>Advertisements</b>			
<b>Totals</b>	<b>\$0.00</b>		<b>\$0.00</b>
<b>Refreshments</b>			
Food Drinks for the PUD Staff	\$25.00		
Candy for the kids	\$50.00		
<b>Totals</b>	<b>\$75.00</b>		
<b>Program</b>			
Vendor Fee	\$10.00		\$0.00
<b>Totals</b>	<b>\$10.00</b>		<b>\$0.00</b>
<b>Prizes</b>			
<b>Totals</b>	<b>\$85.00</b>		<b>\$0.00</b>

# Estimate for Summer Workshop

## Expenses

<b>Total Expenses</b>	<b>Estimate</b>
	<b>\$675.18</b>

Labor	Estimate	Actual
AS	\$151.44	
PC	\$178.74	
<b>Totals</b>	<b>\$330.18</b>	<b>\$0.00</b>

Refreshments	Estimate
Food Drinks for the PUD Staff	\$25.00
Candy for the kids	\$20.00
<b>Totals</b>	<b>\$45.00</b>

Misc. Items/ Handouts	Estimate	Actual
Misc. Items	\$300.00	
<b>Totals</b>	<b>\$300.00</b>	<b>\$0.00</b>

Program	Estimate
Vendor Fee	
<b>Totals</b>	<b>\$0.00</b>

Advertisements	Estimate	Actual
<b>Totals</b>	<b>\$0.00</b>	<b>\$0.00</b>

Prizes	Estimate
<b>Totals</b>	<b>\$45.00</b>

Totals	Estimate	Actual
	<b>\$630.18</b>	<b>\$0.00</b>
<b>Totals</b>	<b>\$630.18</b>	<b>\$0.00</b>

# Estimate for Green Festival Expenses

## Expenses

<b>Total Expenses</b>	<b>Estimate</b>
	<b>\$7,425.00</b>

	Estimate	Actual
<b>Labor</b>		
Pre-event Labor	\$1,500.00	
Staff Labor-day of event	\$3,000.00	
<b>Totals</b>	<b>\$4,500.00</b>	<b>\$0.00</b>

	Estimate
<b>Refreshments</b>	
Food Drinks for the PUD Staff	\$125.00
Candy for the kids	\$60.00
<b>Totals</b>	<b>\$185.00</b>

	Estimate	Actual
<b>Misc. Items/ Handouts</b>		
Culver Items	\$2,000.00	
<b>Totals</b>	<b>\$2,000.00</b>	<b>\$0.00</b>

	Estimate
<b>Program</b>	
Misc. Items/Games/Supplies	\$300.00
<b>Totals</b>	<b>\$300.00</b>

	Estimate	Actual
<b>Advertisements</b>		
Bargain Buyer Ad	\$325.00	
Photocopying/Printing	\$75.00	
Change Banner Dates	\$40.00	
<b>Totals</b>	<b>\$440.00</b>	<b>\$0.00</b>

	Estimate
<b>Prizes</b>	
<b>Totals</b>	<b>\$485.00</b>

<b>Totals</b>	<b>\$6,940.00</b>	<b>\$0.00</b>

# Summary for all Estimated Events

## Expenses

		Estimate	Actual
<b>Total Expenses</b>		<b>\$10,015.36</b>	
<b>Total Expenses</b>		<b>Estimate</b>	<b>Actual</b>
Family Fair	\$1,915.18		
Summer Workshop	\$675.18		
Green Festival	\$7,425.00		
<b>Totals</b>	<b>\$10,015.36</b>		<b>\$0.00</b>
<b>Totals</b>		<b>\$0.00</b>	<b>\$0.00</b>

# Estimate for Family Fair

## Expenses

Total Expenses		Estimate	Actual
		\$1,915.18	
<b>Labor</b>			
AS	\$151.44		
PC	\$178.74		
<b>Totals</b>	<b>\$330.18</b>		<b>\$0.00</b>
<b>Misc. Items/ Handouts</b>			
Culver Items	\$1,500.00		
<b>Totals</b>	<b>\$1,500.00</b>		<b>\$0.00</b>
<b>Advertisements</b>			
<b>Totals</b>	<b>\$0.00</b>		<b>\$0.00</b>
<b>Refreshments</b>			
Food Drinks for the PUD Staff	\$25.00		
Candy for the kids	\$50.00		
<b>Totals</b>	<b>\$75.00</b>		
<b>Program</b>			
Vendor Fee	\$10.00		\$0.00
<b>Totals</b>	<b>\$10.00</b>		<b>\$0.00</b>
<b>Prizes</b>			
<b>Totals</b>	<b>\$85.00</b>		<b>\$0.00</b>

# Estimate for Summer Workshop

## Expenses

<b>Total Expenses</b>	<b>Estimate</b>
	<b>\$675.18</b>

	Estimate	Actual
<b>Labor</b>		
AS	\$151.44	
PC	\$178.74	
<b>Totals</b>	<b>\$330.18</b>	<b>\$0.00</b>

	Estimate
<b>Refreshments</b>	
Food Drinks for the PUD Staff	\$25.00
Candy for the kids	\$20.00
<b>Totals</b>	<b>\$45.00</b>

<b>Misc. Items/ Handouts</b>	
Misc. Items	\$300.00
<b>Totals</b>	<b>\$300.00</b>

<b>Program</b>	
Vendor Fee	
<b>Totals</b>	<b>\$0.00</b>

<b>Advertisements</b>	
<b>Totals</b>	<b>\$0.00</b>

<b>Prizes</b>	
<b>Totals</b>	<b>\$45.00</b>

<b>Totals</b>	<b>\$630.18</b>



# Estimate for Green Festival Expenses

## Expenses

<b>Total Expenses</b>	<b>Estimate</b> <b>\$7,425.00</b>
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	Estimate	Actual
<b>Labor</b>		
Pre-event Labor	\$1,500.00	
Staff Labor-day of event	\$3,000.00	
<b>Totals</b>	<b>\$4,500.00</b>	<b>\$0.00</b>

	Estimate
<b>Refreshments</b>	
Food Drinks for the PUD Staff	\$125.00
Candy for the kids	\$60.00
<b>Totals</b>	<b>\$185.00</b>

<b>Misc. Items/ Handouts</b>	
Culver Items	\$2,000.00
<b>Totals</b>	<b>\$2,000.00</b>

<b>Program</b>	
Misc. Items/Games/Supplies	\$300.00
<b>Totals</b>	<b>\$300.00</b>

<b>Advertisements</b>	
Bargain Buyer Ad	\$325.00
Photocopying/Printing	\$75.00
Change Banner Dates	\$40.00
<b>Totals</b>	<b>\$440.00</b>

<b>Prizes</b>	
<b>Totals</b>	<b>\$485.00</b>

<b>Totals</b>	<b>\$0.00</b>

# Expenses Summary for all Estimated Events

Expenses	Estimate	Actual
<b>Total Expenses</b>	<b>\$10,015.36</b>	

Total Expenses	Estimate	Actual
Family Fair	\$1,915.18	
Summer Workshop	\$675.18	
Green Festival	\$7,425.00	
<b>Totals</b>	<b>\$10,015.36</b>	<b>\$0.00</b>



<b>Totals</b>	<b>\$0.00</b>	<b>\$0.00</b>