



RIPUC DOCKET 4761 PASCOAG UTILITY DISTRICT'S DEMAND SIDE MANAGEMENT PROGRAM

FY 2018

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RIPUC DOCKET 4761

November 1, 2017

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

Re: RIPUC Docket No. 4761

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 2018. This submission includes Pascoag's Executive Summary, Program Details for 2018, reconciliation of 2017 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,

A handwritten signature in black ink, appearing to read "Desarae Dolan". The signature is fluid and cursive, with the first name "Desarae" and the last name "Dolan" clearly distinguishable.

Desarae Dolan

DSM Coordinator

Cc: Mr. William Bernstein, Esquire

Schedule A-1

Pascoag Utility District Demand Side Management Programs - 2018 Proposed Budget

Estimated carry over from 2017	\$	18,895
Estimated sales for 2018	\$	113,932
Net 2018 budget	\$	132,827

		2018 Proposed Budget	
<u>Residential Program</u>			
DR1801	ENE Residential Conservation Admin Fees	\$ 2,700	12 month @ \$225
DR1802	Home Energy Audits with Incentives	\$ 4,020	12 Audits @ \$235, with 10% rebates up to \$100
DR1803	Energy Star Appliance Rebates	\$ 8,500	Up to 87 incentives
DR1804	Refrigerators/Freezer Buy Back	\$ 560	\$50 incentive & \$20 removal fee for a Refrigerator or Freezer; up to 8 rebates
DR1805	Energy Efficient Windows/Doors	\$ 2,300	Up to 153 windows at \$15 or up to 57 doors at \$40
DR1806	Heating System Incentive	\$ 3,000	12 Rebates at \$250
DR1807	ENERGY STAR qualified Water Heaters	\$ 600	4 Rebates at \$150
DR1808	Energy Star Lighting fixtures & ceiling/ventilation fans	\$ 650	Up to 13 rebates at \$50 maximum
DR1809	Home Office Equipment/Home Electronics	\$ 1,000	20 Rebates at \$50
DR1810	New Construction	\$ 1,000	2 Rebates up to \$500 maximum
DR1811	Central Air Conditioning	\$ 2,400	8 Rebates up to \$300 maximum
DR1812	Change a Light Campaign	\$ 750	15 Rebates up to \$50 maximum
DR1813	Desk Calendars- with DSM rebate information	\$ 1,000	500- Desk Top Calendars with DSM rebate information
DR1814	Committed for 2017 Programs	\$ 2,100	To accommodate programs with depleted funds from 2017
Net Residential		\$ 28,580	
<u>Industrial/Commercial</u>			
DI1801	Energy Star Incentive - Office Equipment	\$ 500	10 Rebates up to \$50 maximum
DI1802	Burrillville School Department	\$ 27,000	Burrillville High School Rink Lighting Project
DI1803	Committed Funds- Lighting & EE Projects	\$ 21,566	Money to be available for Commercial & Industrial Energy Efficiency Projects.
DI1804	Consultation Fees	\$ 250	To consult with Rise, National Grid, & ENE
DI1805	Energy Star Commercial Appliance	\$ 700	2 Appliances up to a maximum of \$350
DI1806	LED Street Light Incentive	\$ 10,000	Public Street Lighting Project
Net Industrial/Commercial		\$ 60,016	
<u>Administrative/Ad/Education</u>			
DA1801	Administrative	\$ 21,000	Administrative labor, mileage, supplies, training session with a luncheon for the CSR's
DA1802	Funds for Follow-up to Successful Programs	\$ 1,000	To be used on more successful programs
DA1803	Outreach/Education	\$ 7,500	Billing inserts, Culver conservation items, and the DEED membership.
DA1804	Jesse Smith Library Partnership	\$ 3,700	To partner with the Jesse Smith Library on an Energy Efficiency Project
DA1805	Community Events	\$ 8,031	To promote Energy Efficient @ Community Events (Green Festival, Family Fair, ...)
DA1806	Energy Efficiency Management continuing education	\$ 2,500	Tuition, flight, hotel, meals, books, NEEP 2 day conference, and webinars
DA1807	Program Research and Development	\$ 500	Funds for future development of programs
Net Administrative/Ad/Education		\$ 44,231	
Estimated DSM 2018 Budget/ Expenses/ Balance		\$ 132,827	

Schedule A-2

Pascoag Utility District Demand Side Management Programs - 2017/2018 Comparison

	2017	2018
Estimated carry over from 2017/2018	\$ 39,317	\$ 18,896
Estimated sales for 2017/2018	\$ 112,346	\$ 113,932
Net 2017/2018 budget	\$ 151,663	\$ 132,827

	2017 Proposed Budget	2018 Proposed Budget	Change in \$	% Change
<u>Residential Program</u>				
ENE Residential Conservation Admin Fees	\$ 2,580	\$ 2,700	\$ 120.00	5%
Home Energy Audits with Incentives	\$ 3,250	\$ 4,020	\$ 770.00	24%
Energy Star Appliance Rebates	\$ 6,000	\$ 6,500	\$ 500.00	8%
Refrigerators/Freezer Buy Back	\$ 700	\$ 560	\$ (140.00)	-20%
Energy Efficient Windows/Doors	\$ 2,000	\$ 2,300	\$ 300.00	15%
Heating System Incentive	\$ 3,000	\$ 3,000	\$ -	0%
ENERGY STAR qualified Water Heaters	\$ 900	\$ 600	\$ (300.00)	-33%
Energy Star Lighting fixtures& ceiling/ventilation fans	\$ 650	\$ 650	\$ -	0%
Home Office Equipment/Home Electronics	\$ 1,500	\$ 1,000	\$ (500.00)	-33%
Geothermal System	\$ 100	\$ -	\$ (100.00)	-100%
New Construction	\$ 1,000	\$ 1,000	\$ -	0%
Central Air Conditioning	\$ 3,000	\$ 2,400	\$ (600.00)	-20%
Change a Light Campaign	\$ 1,000	\$ 750	\$ (250.00)	-25%
Smart Power Strips	\$ 200	\$ -	\$ (200.00)	-100%
ENERGY STAR Pool Pumps	\$ 500	\$ -	\$ (500.00)	-100%
Desk Calendars- with DSM rebate information	\$ 1,000	\$ 1,000	\$ -	0%
Committed for 2016/2017 Programs	\$ 2,000	\$ 2,100	\$ 100.00	5%
Net Residential	\$ 29,380	\$ 28,580	\$ (800.00)	-3%
<u>Industrial/Commercial</u>				
Energy Star Incentive - Office Equipment	\$ 500	\$ 500	\$ -	0%
Burrillville School Department	\$ 25,000	\$ 27,000	\$ 2,000.00	8%
Committed Funds- Lighting & EE Projects	\$ 35,168	\$ 21,566	\$ (13,602.00)	-39%
Consultation Fees	\$ 250	\$ 250	\$ -	0%
Energy Star Commercial Appliance	\$ 700	\$ 700	\$ -	0%
LED Street Light Incentive	\$ 10,000	\$ 10,000	\$ -	0%
Net Industrial/Commercial	\$ 71,618	\$ 60,016	\$ (11,602.00)	-16%
<u>Administrative/Ad/Education</u>				
Administrative	\$ 21,000	\$ 21,000	\$ -	0%
Funds for Follow-up to Successful Programs	\$ 1,000	\$ 1,000	\$ -	0%
Outreach/Education	\$ 7,500	\$ 7,500	\$ -	0%
Jesse Smith Library Partnership	\$ 3,700	\$ 3,700	\$ -	0%
Community Events	\$ 8,031	\$ 8,031	\$ -	0%
Burrillville High School Partnership	\$ 3,000	\$ -	\$ (3,000.00)	-100%
Energy Efficiency Management continuing education	\$ 5,934	\$ 2,500	\$ (3,434.00)	-58%
Program Research and Development	\$ 500	\$ 500	\$ -	0%
Net Administrative/Ad/Education	\$ 50,665	\$ 44,231	\$ (6,434.00)	-13%
Estimated DSM Budget/ Expenses/ Balance	\$ 151,663	\$ 132,827	\$ (18,836.00)	-12%

Executive Summary-Submitted by Desarae Dolan

Schedule B

RESIDENTIAL PROGRAMS:

The Residential Programs proposed by Pascoag Utility District for 2018 will mostly mirror our 2017 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 2017. The District will be adjusting the 2018 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 \$225 per month, for a total budget of \$2,700.

ENERGY STAR Audits are a very useful educational tool for homeowners. ENE performed eleven audits as of the end of October 2017. Each homeowner 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 2018. The District would like to slightly increase the number of audits from ten to twelve, at a cost of \$235 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 decrease to \$4,020.

ENERGY STAR appliance rebates program performed better than in 2016. The District has processed rebates totaling \$5,067 through the end of October. We anticipate that we will have little to no funds left by the end of the year for this program. The District is proposing to increase this line item to \$6,500.

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 \$700 in 2017 with an incentive of \$69. The District has processed \$134 through the end of October. In 2018, the District is proposing to slightly decrease the budget to \$560, which will allow for eight incentives. The rebate includes a removal fee of up to \$20.

The ENERGY STAR Window and Door incentive had an approved budget, of \$2,000 in 2017. There has been heavy activity for this line item, totaling \$1,955 being issued through October. The budget will slightly increase to \$2,300 with a rebate of \$15 per window up to 10 windows and \$40 for a door.

The ENERGY STAR Heating Systems program had an approved budget of \$3,000 in 2017. The District has processed nine heating system rebates for a total of \$2,250 being issued through October. The District would like to continue to fund this line item at \$3,000 in 2018 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 had any activity for this program this year but would like to keep this program open in 2018 but reduce the budget for it slightly. The District would like to continue to offer a rebate of 15% with a maximum rebate of \$150; this would allow four incentives with a budget of \$600, in 2018.

ENERGY STAR Lighting Fixtures and Ceiling & Ventilations Fans had a budget of \$650 in 2017 and we have issued \$295 in incentives. The District would like to continue this line item again next year and keep funding at \$650.

ENERGY STAR Home Office/Electronic equipment has an approved budget of \$1,500 and we have processed rebates totaling \$429. The District would like to decrease funding to this program to \$1,000 in 2018.

The District would like to discontinue the Geothermal Systems program in 2018. There has been no activity in this line item for several years. If we see there is a renewed interest in this program, we will bring it back in future years.

New Construction rebates remain slow. The District has not processed any New Construction rebates at this time. The District is requesting that funding remain at \$1,000 for this program. Hopefully when the construction of new homes picks back up, this line item will entice the contractors to install ENERGY STAR qualified equipment, which will result in homes that are more efficient. The \$1,000 request will allow the District to process two rebates.

Central Air Conditioning had a budget of \$3,000 in 2017 and the District processed five rebates for a total of \$1,414. All central air conditioning units replaced removable window units. This is the program we get the most phone calls on as to whether their purchase qualifies for a rebate. 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. 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 to slightly decrease funding of this program to \$2,400 in 2018.

The District would like to continue the Change a Light Campaign even though this program was not as active as in previous years. One reason for this could be that most people have switched from incandescent lightbulbs to either CFL or LED, which last longer and do not need to be replaced as quickly. The District processed \$228 in rebates out of a budget of \$1,000 in 2017. This was the first year in which all rebates processed were for LED lighting only. In 2018, the District would like to reduce funding to \$750.

In 2018, the District would like to discontinue the Smart Power Strips Program. The District did not receive any applications for rebates for this line item and has not received any in several years. The District will bring this program back if there is a renewed interest in the program.

The District would like to discontinue the ENERGY STAR Pool Pump incentive, as we did not receive any rebates this year or in the last several years. The District will bring this program back if there is a renewed interest in the program.

In 2017, the District purchased five hundred desktop Calendars with DSM rebate information for a total cost of \$964.83. 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 500 desktop calendars in 2018 for a total budget of \$1,000.

The District is estimating a carryover of \$18,895 from 2017; the District will use \$16,795 of this carryover in the 2018 budget and would like to place \$2,100 into a line item called Committed for 2017 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 2017. In 2017, the District was able to satisfy

\$2005 in rebates that qualified in 2016. If the carry over funds placed in the Committed for 2017 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 2018.

COMMERCIAL AND INDUSTRIAL PROGRAMS:

The ENERGY STAR Office Equipment and Electronics Program that was available to our commercial and industrial customers saw a decrease in activity this year. We have processed one rebates for \$138. The District would like to continue this program with the same level of funding for 2018, with \$500.

Burrillville School Department

The District has been working with the School Department on multiple energy efficiency projects. To date, they have replaced 61 interior lighting fixtures with 30 new LED lights. The project cost \$15,040 and they have received a rebate of \$6,000. This part of the project will save 44,750 kwhrs annually. The Burrillville School Department is looking into a major lighting project for the Burrillville High School Skating Rink for 2018. We estimate they will receive \$27,000 in incentives if they complete this project in 2018. The District would like to fund this program with \$27,000.

Committed Funds Lighting and Energy Efficiency Projects completed in 2017:

As of this filing, the District has completed two projects this year. Pascoag Fire Department completed a major lighting project that cost \$25,164. The District was able to process a rebate for \$11,365.28 for this project. They will save 12,703 kwhrs annually and reduce their kW by 5.17.

Brigidos IGA also completed an extensive lighting project. The project cost \$39,048 and the District provided a rebate of \$21,497. They will save 63,283 kwhrs and reduce their kW by 12.62.

The District has identified several potential projects for 2018 that would be funded through the Committed Funds Lighting and Energy Efficiency Projects line item:

- NeighborWorks has constructed 96 new, affordable housing rental units in Burrillville. They have put energy efficient heating in 40 of the units so far. Each unit is equipped with a HTP High Efficiency Wall Combi Gas Boilers that has a 95% AFUE rating. These are brand new housing units so there are no heating systems being removed and replaced. We will be rebating them \$10,000 in 2017 for 40 of the completed units with money that was unassigned. The unassigned funds came from what was over the estimated amount from the carryover in 2016. The District would like to rebate them for the remaining 56 units, once completed in 2018. Based on our current heating system application they would qualify for \$250 for each heating system.
- Town of Burrillville Binn's Building completed their energy audit and are looking into a lighting project. The estimated rebate would be \$507 and would save 1,569 kwhrs annually and reduce their kW by 1.05.
- Little General Store completed their energy audit and is looking into a lighting project. The estimated rebate would be \$2,928 and would save 6,400 kwhrs annually and reduce their kW by 1.06.

The Consultation fees line item was funded at \$250 to provide assistance from National Grid, RISE Engineering, or Energy New England with the calculation of energy savings on commercial and industrial projects. In 2018, we would like funding to remain the same.

The ENERGY STAR Commercial Appliances program has not processed any rebates in 2017. In 2018, 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 2017 the DSM Program rebated Pascoag Utility District \$10,000 for the LED Street Light Project that was completed in 2016 in which the District purchased and installed 610 LED Street Lights. This money will be used to reduce the Account Receivable from the DSM Program from \$107,006 to \$97,006. The District would like to fund the LED Street Light Project at \$10,000 in 2018.

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 2018.

Funds for Follow-Up to Successful Programs- this program has allowed the District to move funds to the more successful programs as needed. There has been no activity to report to date, as none of our projects have been depleted. The District would like to keep this line item open in 2018 with a budget of \$1,000.

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 and to advertise the rebate program in the Bargain Buyer and with inserts in billing.

The District would like to continue the Outreach and Education line item in 2018 and fund it with \$7,500. This will allow the District to update the website with the programs for 2018 at 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 2018, and purchase energy efficiency material to educate our customers, which will include booklets on energy efficiency, along with energy conservation materials. The District would also like to purchase a 2018 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. Twelve winning posters were chosen to be included in a 2018 calendar, which will contain energy conservation and recycling tips. An awards ceremony was held on May 10, 2017 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 2018 and help host the awards ceremony with the Library and Burrillville Recycling.

Community Events -The 11th Annual Public Power Green Festival was hosted on Saturday, September 9, 2017. The District continued its partnership 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 reusable grocery bags filled with energy efficient materials and recycling tips. There were activities for children, which included a recyclable crafts, bucket rides, face painting and games.

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 answered related questions. The District's staff also helped 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 2018, the District would like to continue the line item for community events in the amount of \$8,031. We will continue to collaborate 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.

The District added a new line item to the budget in 2017 for the Burrillville High School Partnership in the amount of \$3,000. Staff began to work with Principal Michael Whaley on developing a partnership with their Environmental Sciences program. Unfortunately, the school has not moved forward with any of the suggested ideas and the fund hasn't been used. The District would like to discontinue this program in 2018, as there is no teacher able to lead this partnership.

Energy Efficiency Management Continuing Education-In 2017, the newly appointed DSM Coordinator was able to attend American Public Power's Energy Efficiency Management Certificate Program. Ms. Dolan has passed the required test and is now working on the Business Plan portion of the program due next year. Once completed, she will be awarded the certificate. The cost of the program to date was \$4,431.

The District would like to decrease funding to the Energy Efficiency Management Education line item in 2018 to \$2,500 for trainings and materials.

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. There was no activity for this line item this year. The District would like to fund this line item with \$500 in 2017.

Pascoag's proposed budget is based on a forecast of Sales for 2018 of 56,966,000 kwhrs. The estimated budget is \$132,827 for 2018. The District anticipates an \$18,895 carryover fund from 2017, which would bring the total 2018 budget to \$132,827.

2018 Program Details

Schedule C

RESIDENTIAL PROGRAMS

In 2018, Pascoag plans to continue a majority of the current Residential Programs from 2017. The customer demand continues and the District believes these programs will prove successful in 2018. This summary will detail the programs proposed for 2018 and will review the success of the 2017 programs.

Energy New England – Residential Conservation Services \$2,700:

Pascoag will continue its relationship with Energy New England (“ENE”) in 2018. 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 cannot be resolved over the phone, ENE schedules a home energy audit, which goes into detail as to how the customer can conserve energy. This year Pascoag tested 8 meters¹ and sent letters to each customer referring these customers to the toll free energy hotline. ENE also attended the 11th 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 \$225 per month in 2018.

¹ Meters were proven to be within acceptable accuracy limits except in two instances. During one test, the meter was not putting out a pulse so it could not be tested and in the case of another test, it was found that the meter was not working and needed to be replaced.

Audits with Follow-Up Incentives-\$4,020:

As this is a popular program, Pascoag would like to slightly increase audits to 12 in 2018, along with a maximum rebate of \$100 for incentive follow-up. This would allow the following:

12- Audits @ \$235 each	\$2,820
Money available for 10 incentives @ \$100 each	\$1,200

The cost of home energy audits will increase to \$235, in 2018. 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 cannot 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: \$6,500

Pascoag would like to fund this line item at \$6,500 in 2018. This program will have little to no remaining funds left by the end of the year. The program performed well this year and we would like to increase the program from \$6,000 to \$6,500.

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 10-40% less energy and water compared to the standard models.

Energy Star Appliance:	Savings:
Clothes Washer	25% less energy and 40% less water
Dehumidifier	15% less energy
Dishwasher	12% less energy
Refrigerator and/or Freezer	10% less energy
Air Conditioner	10% less energy
Clothes Dryer	20% less energy

There are multiple benefits to using ENERGY STAR qualified appliances. They save customers money by using less energy and they help to reduce greenhouse gas emissions, which aids 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.

2018 Proposed Appliance Rebate Program	Incentive
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: \$560

The District would like to continue the refrigerator/freezer buyback program in 2018. This program encourages our customers to reduce their power bills by removing an old inefficient refrigerator or freezer from their house. The Energy Star website 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 decrease the budget in 2018 to allow the removal of eight 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 decrease the funds to this line item to \$560; a rebate of \$50 and a removal fee of \$20 will allow us to process eight incentives.

ENERGY STAR Windows/Skylights and Doors Incentive: \$2,300

The budget for 2017 was \$2,000 and by October, the District has processed \$1,995 in rebates. The District would like to slightly increase funding to \$2,300 in 2018. When a customer purchases ENERGY STAR compliant windows, doors and skylights 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 for one door. To qualify all windows and doors must meet energy efficiency standards:

WINDOWS			
CLIMATE ZONE	U-FACTOR ¹	SHGC ²	
Northern	≤ 0.27	Any	Prescriptive
	≤ 0.28	≥ 0.32	Equivalent Energy Performance
	≤ 0.29	≥ 0.37	
	≤ 0.30	≥ 0.42	
North Central	≤ 0.30	≤ 0.40	
South Central	≤ 0.30	≤ 0.25	
Southern	≤ 0.40	≤ 0.25	

SKYLIGHTS		
CLIMATE ZONE	U-FACTOR ¹	SHGC ²
Northern	≤ 0.50	Any
North Central	≤ 0.53	≤ 0.35
South Central	≤ 0.53	≤ 0.28
Southern	≤ 0.60	≤ 0.28

Air Leakage ≤ 0.3 cfm/ft²

¹ Btu/ft²·F
² Solar Heat Gain Coefficient

DOORS			
GLAZING LEVEL	U-FACTOR ¹	SHGC ²	
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/ft²
Air Leakage for Swinging Doors ≤ 0.5 cfm/ft²

ENERGY STAR Heating System Incentives: \$3,000

The District would like to continue the funding for heating system replacement at \$3,000, in 2018. The District issued nine rebates totaling \$2,250 as of October of 2017.

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 up to 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 2018. This will allow twelve customers to take advantage of this program.

ENERGY STAR Solar and Electric Heat Pump Water Heaters: \$600

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 cut your annual hot water costs in half.

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 has not processed any rebates to date. The District would like to slightly decrease funding from \$900 to \$600 in 2018. An incentive of 10% of the cost, not to exceed \$150 will allow us to process four incentives in 2018.

ENERGY STAR Lighting Fixtures/Ceiling and Ventilation Fans: \$650

The District would like to keep funding \$650 in 2018. We would like to continue the fifty percent rebate on lighting fixtures and ENERGY STAR ceiling and ventilation fans. The District processed seven rebates totaling \$295, as of October 2017.

ENERGY STAR qualified lighting fixtures uses 75% less energy than incandescent 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 are 60% more efficient 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: \$1,000

The District would like to slightly decrease funding to \$1,000 in 2018. The incentives for this line item will remain 15% of the cost, up to a maximum rebate of \$50. The District has processed \$429.00 in rebates through October. The District feels that the demand for office and electronic rebates will hopefully increase, possibly 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 are 25-50% more efficient 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.

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 \$1,000 with a rebate of 15% not to exceed \$50.

Incentives for Geothermal Systems or a Ground Source Heat Pump (GHP): \$0

Unfortunately, the District has had no firm commitments for this line item in the last several years. We haven't processed any rebates to date or in recent memory. The District would like to discontinue this program and revisit bringing it back, if there's a renewed interest in geothermal in our community.

New Construction Rebates: \$1,000

The District has not processed any rebates in 2017 but would like funding to remain at \$1,000 for 2018. The budget of \$1,000 will allow us to process two rebates with a cap of \$500 per unit /home.

This line item is an excellent way to encourage 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.

Central Air Conditioning: \$2,400

The District has processed five rebates totaling \$1,414 in 2017, which is down from last year at this time. The District would like to slightly decrease funding to \$2,400 for the upcoming year.

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 8% more efficient than standard models. ENERGY STAR certified central air conditioners must meet the following specifications:

Equipment	Specification
Air-Source Heat Pumps	≥ 8.5 HSPF/ ≥ 15 SEER/ ≥ 12.5 EER* for split systems ≥ 8.2 HSPF ≥ 15 SEER/ ≥ 12 EER* for single package equipment including gas/electric package units.
Central Air Conditioners	≥ 15 SEER/ ≥ 12.5 EER* for split systems ≥ 15 SEER/ ≥ 12 EER* for single package equipment including gas/electric package units.

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

Air Source Heat Pump	SEER	EER	HSPF	Proposed Incentive Amount
Single package	≥ 15.0	≥ 12.0	≥ 8.2	\$200
Split System	≥ 15.0	≥ 12	≥ 8.5	\$200
	≥ 16	≥ 12.5	≥ 8.5	\$250
	≥ 17	≥ 13	≥ 8.5	\$300

Central AC	SEER	EER	Proposed Incentive Amount
Single Package	≥ 15	≥ 12	\$200
Split System	≥ 15	≥ 12.5	\$250
	≥ 16	≥ 13	\$300

Energy Star Light Bulbs: \$750

The ENERGY STAR label on lighting means you are getting a product that is superior in energy efficiency. ENERGY STAR qualified light bulbs use 70%-90% less energy than traditional

incandescent bulbs. ENERGY STAR decorative light strings use 75% 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 used by just one 7-watt incandescent bulb, can power 140 LEDs or enough to power a 25-foot string of LEDs.

The District proposes a rebate of 50% of the cost of the LED light bulbs with a cap of \$50 per customer. The District would like funding to slightly decrease to \$750 for 2018.

Desk Calendars with DSM Rebate Information: \$1000

In 2017, the District purchased 500 Desk Calendars that are personalized with information about the DMS rebates and directs our customers to our website 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 \$1000 for this line item.

“Smart” Power Strips: \$0

Unfortunately, the District has had no firm commitments for this line item in the last several years. We haven’t processed any rebates to date or in recent memory. The District would like to discontinue this program and revisit bringing it back if there is a need.

ENERGY STAR Qualified Pool Pump Program: \$0

Unfortunately, the District has had no firm commitments for this line item in the last several years. We haven’t processed any rebates to date or in recent memory. The District would like to discontinue this program and revisit bringing it back if there’s a need.

Committed for 2017 Programs: \$2,100

The District is estimating a carryover of funds from 2017 in the amount of \$18,895. The District would like to use \$16,795 of these funds in the 2018 budget and use \$2,100 to satisfy 2017 qualified rebates for customers who do not receive a rebate because the funds for a particular program had been depleted in 2017 or for rebates that are turned in after the books are closed for 2017; the cutoff date for 2017 rebates would be March 15, 2018.

COMMERCIAL & INDUSTRIAL PROGRAMS

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

The District issued three incentives totaling \$138 through October of 2017. The District continues to promote this program. The District would like to continue this program at the same level of funding in 2018.

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 2017:

Burrillville School Department:

The District has been working with the School Department on multiple energy efficiency projects. To date, they have replaced 61 interior lighting fixtures with 30 new LED lights. The project cost \$15,040 and they've received a rebate of \$6,000. This part of the project will save 44,750 kwhrs annually.

The Burrillville School Department is looking into a major lighting project for the Burrillville High School Skating Rink for 2018. We estimate they will receive \$27,000 in incentives if they complete this project in 2018. The District would like to fund this program with \$27,000.

Committed Funds-Lighting and Energy Efficiency Projects:

The District has completed two projects this year. Pascoag Fire Department completed a major lighting project that cost \$25,164. The District was able to process a rebate for \$11,365.28 for this project. They will save 12,703 kwhrs annually and reduce their kW by 5.17.

Brigidos IGA also completed an extensive lighting project. The project cost \$39,048 and the District provided a rebate of \$21,497. They will save 63,283 kwhrs and reduce their kW by 12.62.

Committed Funds 2018- Lighting and Energy Efficiency Projects: \$

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 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 2018. These incentives have enticed customers to make the necessary changes to increase their energy efficiencies

The District would like to allocate \$21,566 to this line item and make the funds available on a first come first serve basis.

The District has identified the following projects for 2018:

- NeighborWorks has constructed 96 new, affordable housing rental units in Burrillville. They have put energy efficient heating in 40 of the units so far. Each unit is equipped with a HTP High Efficiency Wall Combi Gas Boilers that has a 95% AFUE rating. These are brand new housing units so there are no heating systems being removed and replaced. We will be rebating them \$10,000 in 2017 for 40 of the completed units with money that was unassigned. The unassigned funds came from what was over the estimated amount from the carryover in 2016. The District would like to rebate them for the remaining 56 units, once completed in 2018. Based on our current heating system application they would qualify for \$250 for each heating system.
- Town of Burrillville Binn's Building completed their energy audit and is looking into a lighting project. The estimated rebate would be \$507 and would save \$1,569 kWhrs annually and reduce their kW by 1.05.
- Little General Store completed their energy audit and is looking into a lighting project. The estimated rebate would be \$2,928 and would save 6,400 kWhrs annually and reduce their kW by 1.06.

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 remain at \$250 for 2018.

ENERGY STAR Commercial Appliances: \$700

The District has not processed any rebates to date. 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 35% 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 15% 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 65% more efficient than standard models. Models that meet the requirements incorporate better insulation, reducing heat loss, and may 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 50% 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.

2018 LED Street Light Incentive: \$10,000

In 2017, the DSM Program rebated Pascoag Utility District \$10,000 for the LED Street Light Project that was completed in 2016 in which the District purchased and installed 610 LED Street Lights. This money will be used to reduce the Account Receivable from the DSM Program from \$97,006 to \$87,006.

ADMINISTRATIVE/AD/EDUCATION PROGRAMS

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 three 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 2018.

The District would like to fund this line item at \$21,000 in 2018.

Follow-Up to Successful Programs: \$1,000

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 2018 budget. Any transfer would only be done with the Division's approval.

Outreach/Education Program: \$7,500

The District took several opportunities to educate the public on energy efficiency matters this year. We attended and helped with some of the planning aspects of the Burrillville Family Fair. Customers received energy efficient information products at the Family Fair and Green Festival. We also distribute information at our office for walk in customers.

A budget of \$7,500 is requested, to use some of these funds to update the website in 2018, 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 2018, 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 collaborated with the Jesse Smith Library and Burrillville Recycling for an Earth Day Contest, which encouraged students, grades K -8 to create posters on why recycling and energy conservation was important. The top twelve posters were chosen and will be included in a 2018 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 2018, 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: \$8,031

In 2017, 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 Burrillville Family Fair and the 11th Annual Green Festival. Many hours were dedicated to the preparation of the Green Festival 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 be very rewarding. The Festival had something for everyone. Festivalgoers 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. 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 would like to fund this line item at \$8,031 in 2018.

Burrillville High School Partnership: \$0

The District added a new line item to the budget in 2017 for the Burrillville High School Partnership in the amount of \$3,000. Over the course of many years, the District staff worked with Charles Boucher's classes on various energy conservation projects. Pascoag had assisted with the purchase of video and computer equipment and up-grades to software, which in return was used to create conservation videos, logos, and animated characters that encouraged the use of energy conservation. Mr. Boucher retired in 2009 and since then, PUD staff has had a difficult time finding another teacher to partner with for similar projects. Staff began to work with Principal Michael Whaley on developing a partnership with their Environmental Sciences program. Unfortunately, the school has not moved forward with any of the suggested ideas and the fund hasn't been used. The District would like to discontinue this program in 2018, as there is no teacher able to lead this partnership.

Energy Efficiency Management Continuing Education funds: \$2,500

In 2017, Ms. Dolan-the DSM Coordinator, was able to attend the American Public Power Association's Spring Education Institute to earn a certificate in Energy Efficiency Management. Ms. Dolan has passed the required test and is now working on the Business Plan portion of the program due next year. Once completed, she will be awarded the certificate.

The District would like to decrease funding to this line item to \$2,500 in 2018 so the DSM coordinator can attend various workshops and other learning opportunities.

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. Staff were able to attend the Boston Green Festival this year to research ways to improve the District's Green Festival.

Schedule D-2

Pascoag Utility District Demand Side Management Programs - 2017 Projected Expenses and Balances

Actual carry over from 2016	\$	69,167		
Estimated sales for 2017	\$	112,346		
Net 2017 budget	\$	181,513		
		2017 Approved Budget	Projected Expenses	Projected Balance
<u>Residential Program</u>				
DR1701 ENE Residential Conservation Admin Fees	\$	2,580	\$ 2,580	\$ -
DR1702 Home Energy Audits with Incentives	\$	3,250	\$ 3,250	\$ -
DR1703 Energy Star Appliance Rebates	\$	6,000	\$ 6,000	\$ -
DR1704 Refrigerators/Freezer Buy Back	\$	700	\$ 134	\$ 566
DR1705 Energy Efficient Windows/Doors	\$	2,000	\$ 1,995	\$ 5
DR1706 Heating System Incentive	\$	3,000	\$ 2,750	\$ 250
DR1707 ENERGY STAR qualified Water Heaters	\$	900	\$ -	\$ 900
DR1708 Energy Star Lighting fixtures & ceiling/ventilation fans	\$	650	\$ 350	\$ 300
DR1709 Home Office Equipment/Home Electronics	\$	1,500	\$ 629	\$ 971
DR1710 Geothermal System	\$	100	\$ -	\$ 100
DR1711 New Construction	\$	1,000	\$ -	\$ 1,000
DR1712 Central Air Conditioning	\$	3,000	\$ 2,014	\$ 986
DR1713 Change a Light Campaign	\$	1,000	\$ 300	\$ 700
DR1714 Smart Power Strips	\$	200	\$ -	\$ 200
DR1715 ENERGY STAR Pool Pumps	\$	500	\$ -	\$ 500
DR1716 Desk Calendars- with DSM rebate information	\$	1,000	\$ 965	\$ 35
DR1717 Committed for 2016 Programs	\$	2,000	\$ 2,005	\$ (5)
Net Residential	\$	29,380	\$ 22,872	\$ 6,508
<u>Industrial/Commercial</u>				
DI1701 Energy Star Incentive - Office Equipment	\$	500	\$ 138	\$ 362
DI1702 Burnillville School Department	\$	25,000	\$ 25,000	\$ -
DI1703 Committed Funds- Lighting & EE Projects	\$	35,168	\$ 32,862	\$ 2,306
DI1704 Consultation Fees	\$	250	\$ -	\$ 250
DI1705 Energy Star Commercial Appliance	\$	700	\$ -	\$ 700
DI1706 LED Street Light Incentive	\$	10,000	\$ 10,000	\$ -
Net Industrial/Commercial	\$	71,618	\$ 68,000	\$ 3,618
<u>Administrative/Ad/Education</u>				
DA1701 Administrative	\$	21,000	\$ 20,000	\$ 1,000
DA1702 Funds for Follow-up to Successful Programs	\$	1,000	\$ -	\$ 1,000
DA1703 Outreach/Education	\$	7,500	\$ 7,250	\$ 250
DA1704 Jesse Smith Library Partnership	\$	3,700	\$ 3,214	\$ 486
DA1705 Community Events	\$	8,031	\$ 7,000	\$ 1,031
DA1706 Burnillville High School Partnership	\$	3,000	\$ -	\$ 3,000
DA1707 Energy Efficiency Management Continuing Ed	\$	5,934	\$ 4,431	\$ 1,503
DA1708 Program Research and Development	\$	500	\$ -	\$ 500
Unassigned Money from Actual Carryover	\$	29,850	\$ 29,850	\$ (0)
Net Administrative/Ad/Education	\$	50,665	\$ 41,895	\$ 8,770
Estimated DSM 2017 Budget/ Expenses/ Balance	\$	181,513	\$ 162,618	\$ 18,895

Schedule E

Pasco Utility District Savings Associated with Completed Conservation Projects January-June 2017

<i>Project</i>	<i>kWh Savings</i>	<i>Dollars (0.135/kwhr)</i>
Appliance Rebates	8205.00	\$ 1,494.05
Appliance Rebates Committed 2016	375.00	\$ 50.63
Refrigerator/Freezer Buyback	2190.00	\$ 295.65
Home Office Equipment	191.00	\$ 25.79
Home Office Equipment Committed 2016	0.00	\$ -
Commercial Office Equipment	426.00	\$ 57.51
Central Air Conditioning	2243.00	\$ 302.81
Central Air Conditioning Committed 2016	3738.00	\$ 504.63
LED Lightbulb Rebates	5413.00	\$ 730.76
Total:	22781.00	\$ 3,075.44

Additional Projects:

Notes:

Residential Heating System Replacements (Gas)

Energy Cost Saved $\$324 \times 5 = \1620
 Energy Consumption Saved (MMBTU) $14 \times 5 = 70$
 Energy Consumption (Therms) $142 \times 5 = 710$

Residential Heating System Replacements (Oil)

Energy Cost Saved $-\$85 \times 2 = \170
 Energy Consumption Saved (MMBTU) $6 \times 2 = 12$
 Energy Consumption (Gallons) $44 \times 2 = 88$

Windows and Doors

16 Homes replaced 7 doors and 107 windows

Replacing single-pane windows could save between \$101-\$583 annually.
 Replacing double pane windows could save you between \$27-\$197 annually.

Committed Funds:

Burrillville School Department

44,750 kwhrs saved annually

Pascoag Fire Department

12,703 kwhrs saved annually

Brigidos IGA

63,283 kwhrs saved annually

Schedule E

Pascog Utility District
Savings Associated with Completed Conservation Projects
July-October 2017

<i>Project</i>	<i>kWh Savings</i>	<i>Dollars (0.135/kwhr)</i>
Appliance Rebates	7345.00	\$ 991.58
Appliance Rebates Committed 2016	0.00	\$ -
Refrigerator/Freezer Buyback	0.00	\$ -
Home Office Equipment	95.00	\$ 12.83
Home Office Equipment Committed 2016	0.00	\$ -
Commercial Office Equipment	0.00	\$ -
Central Air Conditioning	1495.00	\$ 201.83
Central Air Conditioning Committed 2016	0.00	\$ -
LED Lightbulb Rebates	1848.00	\$ 249.48
Total:	10783.00	\$ 1,455.71

Additional Projects:***Notes:***

Residential Heating System Replacements (Gas)

n/a

n/a

n/a

Residential Heating System Replacements (Oil)

Energy Cost Saved -\$85x1=\$85

Energy Consumption Saved (MMBTU) 6x1=6

Energy Consumption (Gallons) 44x1=44

Windows and Doors

1 Home replaced 10 windows

Replacing single-pane windows could save between \$101-\$583 annually.

Replacing double pane windows could save you between \$27-\$197 annually.

Committed Funds:

Schedule F

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

Schedule G

Estimate for Family Fair			
Expenses			
		Estimate	Actual
Total Expenses		\$2,528.73	
		Estimate	Actual
Labor			
AS	\$229.53		
PC	\$214.20		
Totals	\$443.73		\$0.00
Misc. Items/ Handouts			
Oliver Items	\$2,000.00		
Totals	\$2,000.00		\$0.00
Advertisements			
Totals	\$0.00		\$0.00
Totals	\$2,443.73		\$0.00
		Estimate	Actual
Refreshments			
Food Drinks for the PUD Staff	\$25.00		
Candy for the kids	\$50.00		
Totals	\$75.00		
Program			
Vendor Fee	\$10.00		\$0.00
Totals	\$10.00		\$0.00
Totals	\$85.00		\$0.00

Schedule G

Estimate for Green Festival Expenses			
Expenses			Estimate
Total Expenses			\$9,835.84
	Estimate	Actual	
Labor			
Pre-event Labor	\$2,835.84		
Staff Labor-day of event	\$3,000.00		
Totals	\$5,835.84	\$0.00	
Misc. Items/ Handouts			
Culver Items	\$3,000.00		
Totals	\$3,000.00	\$0.00	
Advertisements			
Bargain Buyer Ad	\$325.00		
Photocopying/Printing	\$75.00		
Change Banner Dates	\$40.00		
Totals	\$440.00	\$0.00	
Refreshments			
Food Drinks for the PUD Staff	\$200.00		
Candy for the kids	\$60.00		
Totals	\$260.00		
Program			
Misc. Items/Tshirts/Supplies	\$300.00		
Totals	\$300.00		
Totals			
			\$560.00
Totals	\$9,275.84	\$0.00	

Schedule G

Summary for all Estimated Events

Expenses

	Estimate	Actual
Total Expenses	\$10,046.40	

	Estimate	Actual
Total Expenses		
Family Fair	\$2,121.40	
Green Festival	\$7,925.00	
Totals	\$10,046.40	\$0.00

	Estimate	Actual

Totals	\$10,046.40	\$0.00
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Jesse Smith Library Earth Day Calendar Contest
Award Ceremony
May 10, 2017 at 6:00PM



Schedule H

2017 Green Festival Vendors

1. PUD
2. Energy New England
3. Face Painters
4. Jesse Smith Library
5. RIRRC
6. Burrillville Land Trust
7. Save the Lakes
8. Betty's Bee Farm
9. Burrillville Historical Society
10. URI Master Gardeners
11. URI Water Quality
12. Trinity Solar
13. Maloney Properties
14. Advocare
15. DVK Naturals
16. Spirit Animal Pet and Wellness
17. Manatee Design
18. Claude's Cycles
19. A Touch of Light-Massage
20. Healthy Homes Happy Lives
21. E2SOL
22. A Touch of Light-Yoga
23. Anderson Windows
24. URI Energy Fellows
25. Celadon Road
26. Vivint Solar
27. Scentsy
28. Burrillville Recycling
29. Yoga Arts
30. BFMA

PASCOAG UTILITY DISTRICT BURRILLVILLE PARKS & RECREATION DENIA JESSE SMITH MEMORIAL LIBRARY



11TH ANNUAL SEPTEMBER 9, 2017 10-2PM

GREEN FESTIVAL

Pascoag Utility District and the Town of Burrillville's Parks and Recreation Department are teaming up to hold the 11th Annual Green Festival on Saturday, September 9, 2017 from 10:00-2:00 PM at the Stillwater Mill Center -100 Tinkham Lane, Harrisville RI 02830. The event is free to the public!

The Festival has something for everyone! Learn about local products and ideas that will help you conserve energy and create a more sustainable lifestyle. There will be free crafts, face painting and bucket truck rides for children.

This year the **Jesse Smith Memorial Library** will be holding two workshops on composting and beekeeping in their community room.

Secrets of Composting with URI Master Gardeners 11:30-12:15

Composting at home is a great way to turn food scraps and leaf/yard waste into a rich soil amendment for lawns and gardens. Join URI Master Gardeners for an informational session on some easy steps you can take to incorporate composting into your daily routine!

Beekeeping with Betty Mencucci 12:30-1:00

Ever wondered if you might make a good beekeeper? Stop by Betty's workshop as she gives an overview of the exciting world of beekeeping. Betty's Bee Farm, located in Burrillville, has 20 colonies of bees. She also teaches beginner Beekeeping each spring for the Rhode Island Beekeepers Association.

The Burrillville Farmers Market will be under the Pavilion selling their amazing vegetables, baked goods and other fine products. Stop by and see all the great things they have to offer! Kids can make a free craft!

Gotta Q Smokehouse BBQ's food truck will be on site offering lunch and snacks to purchase! Musician, Dave Laprise of Accordion Cool will be performing music from big band, old standards, fifties, country, rock n' roll, and light jazz.

And in addition to all the great vendors, workshops, and activities we'll have giant yard size Checkers, Twister, Connect 4 and many other fun games to play!!! Best of all, it's free!

First 500 attendees get free reusable bags packed with information and goodies!

Save the Date!



Schedule I –Customer Information

Energy Star Products Help You Save

Do you know you could be getting a rebate for the Energy Star products you buy?

It's easy! Fill out an Energy Star rebate form by picking one up at the office or downloading it from our website. Mail or drop off the form with proof of purchase and proof of the Energy Star label. The rebate then gets credited to your electric account.

We offer rebates on the following Energy Star rated products:

- Pool Pumps
- Appliances
- Central Air
- Commercial Appliances
- Commercial Office Equipment
- Electric Heat Pump Hot Water Heaters and Solar Water Heaters used in combination with an Electric Tank Water Heater
- Heating System or Burner Replacement
- Home Office Equipment and Electronics
- Light Bulbs
- Lighting Fixtures, Ceiling and Ventilation Fans
- Geothermal Heat Pumps or Ground Source Heat Pumps
- New Construction
- Smart Power Strips
- Windows and Doors

We also provide:

- Free home and business energy audits with rebates available for follow up audit measures.
- Rebates when you get rid of an old running refrigerator or freezer.

For more information on how to qualify for an Energy Star rebate, please visit us on the web at:

<http://www.pud-ri.org/conservation/download-rebate-forms>

This offer is for a limited time only, subject to availability of funding.

THE COMPLETE GUIDE TO SAVING ENERGY IN THE HOME



TEN NO COST/LOW COST TIPS TO SAVE ON YOUR ENERGY BILL

- 1) **Bundle up your home** - Hidden gaps and cracks in the home can add up to as much air-flow as an open window. The more heat that escapes, the more cold air gets in, causing your heating system to work harder, use more energy, and costing you energy \$\$'s. Start by sealing air leaks and pay special attention to your attic and basement, where the biggest gaps and cracks are often found. Weatherizing can be done economically using materials such as caulking, weatherstripping, and insulation...where needed.
- 2) **Put on a sweater and save a few dollars** - For every notch you raise the thermostat, your bill increases up to 3%. Try reducing the temperature if possible. Turning down the thermostat by 10 degrees at night or when the house is unoccupied can save as much as 20% of heating costs. But remember, small children and the elderly in particular may be vulnerable to problems at lower temperatures, so reduce the temperature gradually to give your body time to adjust to the new temperature level.
- 3) **Let the sunshine in** - Be sure to open draperies and blinds on sunny days to let the sunlight warm your home. But remember to close them at night and on overcast days.
- 4) **Don't light up the whole room** - Most of us know to turn off the lights when we leave a room. However even while in a room, if a small reading lamp can be used, just light up your area instead of the whole room. Of course also replacing incandescent light bulbs with compact fluorescents (CFL's) or light emitting diodes (LED's) can save considerably over the life of the bulb.
- 5) **Get a heating system tuneup** - A heating and cooling professional can perform an annual inspection and routine maintenance to make sure your furnace is operating at peak performance.
- 6) **Keep the damper closed on your fireplace when not in use** - If you keep the damper open, all the heat you are paying for is going right out the chimney. Remember if the damper is not closed; it's like having a window open in the middle of winter....a waste of energy, money and not very comfortable....brrrrr.
- 7) **Reduce hot water temperature** - Set your water heater to the "normal" setting of 120 degrees, unless the owner's manual for your dishwasher requires a higher setting. You could save 7-11% of water heating costs.
- 8) **Shorten showers** - Simply reducing that lingering time by a few minutes can save hundreds of gallons of hot water per month for a family of four. Showers account for 2/3 of your water heating costs. Cutting your showers in half can reduce hot water costs by 33%.
- 9) **Discontinue the use of that older second refrigerator** - Got an old beer fridge in the basement or worse, in the garage? Unplug it and make the trek to your kitchen refrigerator. It will be good for your heart and your energy bill.
- 10) **Make use of your oven's leftover heat** - An oven will keep its heat for about 15 - 20 minutes after it is turned off. Use this heat to keep things such as second courses, desserts, or anything else that may need to be kept warm.

BROUGHT TO YOU BY PASCOAG UTILITY DISTRICT

Fall into Energy Efficiency

Summer is winding down, and the seasons aren't the only thing in transition. Your energy bills are about to change too. Soon the leaves will be falling, there will be frost on the pumpkin, and nights will get downright chilly.....and behind that another cold winter and higher energy bills.

Dodge those drafts... even simple leaks as a result of cracks and gaps in the home can waste 5% to 30% of your energy use according to the U.S. Department of Energy. It pays to seal up leaks with caulking and weather-stripping. Filling cracks with caulk and adding weatherstripping to windows and doors saves money and increases energy efficiency by keeping cold winds outside and warm air inside; your furnace won't have to work so hard to heat your home because heat is not escaping through cracks and gaps.

When cool weather hits, remove your portable air conditioners and window units. Store them carefully and clean them well. If you can remove the unit, make sure any gaps, cracks, or holes are sealed when you close the window. If you are not able to remove the A/C from the window, make sure it is well insulated and covered.

Remove screens from windows. For double insulated windows, or gas filled windows this may not be necessary. For older homes, take down the screen window or slide it out of the way, and replace it with the "storm" windows. Make sure the storm windows are in good working order.

Now is the time for a furnace tune up. Call or check around. This is the season when there may be tuning specials. Get a deal on a tune up today.

Run fans in reverse. Most people think of fans only when they want to be cool, but many ceiling units come with a handy switch that reverses the direction of the blades. Counterclockwise rotation produces cooling breezes while switching to clockwise makes it warmer: air pooled near the ceiling is circulated back into the living space, cutting your heating costs as much as 10%

Service or clean fireplaces. Make sure they are in working order, including gas or electric fireplaces

Adjust the thermostat for winter or colder weather usage when the time is right. Don't turn on your furnace until all the windows in your home are closed and locked/sealed!

Brought to you by Pascoag Utility District





Beware of V-a-m-p-i-r-e P-o-w-e-r!!!

Vampire power is created by any appliance that continues to draw power when not in use, which, in the typical home, includes dozens of appliances ranging from the clock radio on your night stand to the computer in your home office. A couple of watts here, a couple of watts there are sucked away 24 hours a day, 365 days a year. Seem scary?.....**it could be!!!**

Some household appliances are sneaky and draw power even when they are shut off. The source of that drain has been given any number of derogatory names, from vampire power to wall wart to phantom load. And like all vampires, this villain goes without notice --until the electricity bill arrives at the end of the month.

Vampire power can best be spotted at night. Turn off all the lights and look around your home. Every appliance marked by an LED light, or anything else that glows, is drawing electricity. Not everything that leads to vampire power can be seen in the dark, however. Some must be felt. Cell phone chargers, for example, draw electricity when they are plugged in, whether they are connected to the phone or not.

Uncertain whether an appliance is drawing electricity? Try laying your hands on it. If it's an electrical item that's warm to the touch, it's using energy. Anything that must be reset after a power failure, or anything that operates by remote control (e.g., televisions, VCRs, etc.) draws electricity even when they are turned off. Even your doorbell is indirectly nickel-and-diming your electric bill.

Not all vampire power can be eliminated. For starters, smoke and carbon monoxide detectors draw vampire power but provide life-saving service. And although not a matter of life or death, unplugging other phantoms is not very practical. Most of us wouldn't think of cutting the power to our alarm clocks and then resetting them before bed each night. So even though not all vampire power is bad, we tend to forget about it and the energy/\$\$...it consumes.

The good news is that there are ways to stop being haunted by vampire power.

First, identify which electronic devices drain power when not in use, and then unplug those that are turned off. And a very easy way to cut all power to multiple appliances at one time with one flip of the switch is to use a surge protector or power strip. Finally, when it is time to replace an electronic device, look for energy efficient models that waste less energy.

So get ready to pick up your stake and take a stab at saving energy.....**and \$\$.**

BROUGHT TO YOU BY PASCOAG UTILITY DISTRICT

Schedule J- 2017 Lighting Project Information

Pascoag Fire Department Lighting Project



Division of Thielsch Engineering, Inc

1341 Elmwood Avenue

Cranston, Rhode Island 02910



PASCOAG
UTILITY DISTRICT

Pascoag Fire Dept

Financial Summary

Total Project Cost	\$	25,164
Estimated PUD Incentive	\$	(11,365)
Customer Net Cost	\$	13,799
Estimated Energy Cost Savings Annually	\$	1,842
Estimated Maintenance Savings	\$	758
Return on Investment (ROI)		19%
Simple Payback in Years		5.3

Energy Savings

kW Reduction	kWh Reduction
5.17	12,703

Pollution Savings

CO2 Reduction (lbs)	NOx Reduction (lbs)	SO2 Reduction (lbs)
12,195	3.2	0.4

Pascag Fire Dept.
105 Main St
Pascag RI 02859
Dave Carpenter
(401) 569-4470



Room Name	Fixture Type	Existing Fixture	Building	AUDITED QTY		Proposed Fixture	AUDITED QTY		SENSOR TYPE	SENSOR QTY	INSTALLED Sensor QTY	COMMENTS
				AUDITED QTY	Building		EXISTING QTY	PROPOSED QTY				
Bunk room closet 117176 (3)	I1	1F1712 2' STRIP	0			BALLAST 14'FT18 SSLP - UNV SVL QHE 1X3278UNV SL	0	0				
Bunk room 65w br 40 (3)	I2	65W INC BR 40	6			PHI 14BR40ENDF90 2700-800 DIM 6/1 (420562)	6	6				
Day room	I2	65W INC BR 40	4			PHI 14BR40ENDF90 2700-800 DIM 6/1 (420562)	4	4				
Hallway	I2	65W INC BR 40	4			PHI 14BR40ENDF90 2700-800 DIM 6/1 (420562)	4	4				
Hall 24x12 4 wrap	B1	2F40T12 4' WRAP	24			F-14CR-L4N-40-FR-WB	24	24				
Women's room 32w dining	I3	32W CIRCLINE SURFACE	2			REIMPHOS RPT DRUM 14 1800LM 3000K - LED 14IN DRUM, 12W	2	2		WS301	1	1
Men's room	I3	32W CIRCLINE SURFACE	2			REIMPHOS RPT DRUM 14 1800LM 3000K - LED 14IN DRUM, 12W	2	2		WS301	1	1
20612 8' strip	A1	2F98T12 8' STRIP	1			F-18VX-N4N-40-FR	1	1				
Stairway (2) 13w CFL s1	I4	13W CFL S1	2			PHI BA18END2700 DIM 6/1 423483 ALSO LISTED AS 7W	2	2				
Front landing	I4	13W CFL S1	2			PHI BA18END2700 DIM 6/1 423483 ALSO LISTED AS 7W	2	2				
Day room 195pg 17cw	A2	1F98T12 8' PG SOFFIT	5			F-18VX-N4N-40-FR	5	5				
Day room 195pg 17cw	A2	1F98T12 8' PG SOFFIT	6			F-18VX-N4N-40-FR	6	6				
Emergency closet	B2	2F40T12 4' WRAP	1			F-14CR-L4N-40-FR-WB	1	1		WS301	1	1
Dispatch	C1	2F40T12 2X4	1			K-24XL-L4N-40-FR-PA	1	1				
Apertur room 256112 8' ind (field install 8-h	A3	2F98T12 8' IND	17			F-18VX-N4N-40-FR	17	17		HB-350	10	10
Apertur room 240112 4' ind	B4	1F40T12 4' STRIP	1			K-14VX-N4N-40-FR	1	1				
Apertur room	I4	13W CFL S1	1			PHI BA18END2700 DIM 6/1 423483 ALSO LISTED AS 7W	1	1				
Emergency closet 240 2X2 u6'surface	D1	2F40T12 2X2 U6	1			K-22XL-L2N-40-FR-PA	1	1				
Meeting room 440112 8 wraps	A4	4F40T12 8' WRAPS	5			F-18CR-L4N-40-FR-WB	5	5				
Bathroom	D1	2F40T12 2X2 U6	0			K-22XL-L2N-40-FR-PA	0	0				
Bathroom	D2	2F40T12 2X2 U6	2			K-22XL-L2N-40-FR-PA	2	2				
Dugout 196112 8' ind	A5	1F98T12 8' IND	4			F-18VX-N4N-40-FR	4	4		WS250 one 184 box one 11d box	1	0
Dugout 140112 4' stop	B4	1F40T12 4' STRIP	1			K-14VX-N4N-40-FR	1	1				
Boiler room a19	I5	65W INC S1	1			PHI BA18END2700 DIM 6/1 423483 ALSO LISTED AS 7W	1	1				
Rear exit 50wraps	I6	50W HFS WALLPACK	1			RAB WP2LED37PC WP 37W COOL LED 120V PC W/ GLASS LENS BZ	1	1				
Exterior	I7	65W INC S1	3			PHI 15PAR30ENDIF25 3000 1050 OD 6/1 453431 UL WET LOCATION	3	3				
Chefs office	D2	2F40T12 2X2 U6	2			K-22XL-L2N-40-FR-PA	2	2				
EMS Room and App room	I8	2F40T12 2X2 U6	2			RURB 2X2 WITH LED MT	2	2				

FEATURES & SPECIFICATIONS

INTENDED USE — The BLT Best-in-Value Low Profile LED luminaire features a popular center basket design that offers a clean, versatile style and volumetric distribution. High efficacy LED light engines deliver energy savings and low maintenance compared to traditional sources. An extensive selection of configurations and options make the BLT the perfect choice for many lighting applications including schools, offices and other commercial spaces, retail, hospitals and healthcare facilities. The low profile BLT design (2-3/8") also makes it an excellent choice for renovation projects.

CONSTRUCTION — BLT enclosure components are die-formed for dimensional consistency and painted after fabrication with a polyester powder paint for improved performance and protection.

The reflector is finished with a high reflective matte white powder paint for improved aesthetics and increased light diffusion.

End plates contain easy-to-position integral T-bar clips for securely attaching the luminaire to the T-grid. For additional T-grid security, optional screw on T-bar clips are available.

Diffusers are extruded from impact modified acrylic for increased durability.

LED boards and drivers are accessible from the plenum.

OPTICS — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces — rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. High performance extruded acrylic diffusers conceal LEDs and efficiently deliver light in a volumetric distribution. Four diffuser choices available — curved and square designs with linear prisms or a smooth frosted finish.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000).

Non-Configurable BLT: Generic 0-10 volt dimming driver. Dims to 10%

Configurable BLT: available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. The High Efficiency versions deliver >130 LPW and can be specified via the Lumen Package designations in the Ordering Information below.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight® controls make each luminaire addressable — allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Connection to nLight is simple. It can be accomplished with integrated nLight AIR wireless or through standard Cat-5 cabling. nLight offers unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission, while nLight AIR is commissioned easily through an intuitive mobile app.

Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Driver disconnect provided where required to comply with US and Canadian codes.

SENSOR — Integrated sensor (individual control): Sensor Switch MSD7ADCC ((Passive Infrared (PIR)) or MSDPD77ADCC ((PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 4 for more details on the integrated sensor.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 4 for the nLight sensor options.

Integrated Smart Sensor (nLight Air Wireless Platform): The rES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is both a digital PIR occupancy sensor/automatic dimming photocell. It pairs to other luminaires and wall switches through our mobile app, CLAIRITY, which allows for simple sensor adjustment. See page 4 for more details on the Integrated Smart Sensor.

INSTALLATION — The BLT's low profile design of only 2-3/8" provides increased installation flexibility especially in restrictive plenum applications. The BLT fits into standard 15/16" and narrow 9/16" T-grid ceiling systems.

Suitable for damp location.

For recessed mounting in hard ceiling applications, Drywall Grid Adapters (DGA) are available as an accessory. See Accessories section.

LISTINGS — CSA Certified to meet U.S. and Canadian standards. IC rated.

DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Catalog Number
Notes
Type

BLT Series LED

2BLT

2' x 4'
LED



eldoLED



Specifications

Length: 47-3/4 (121.2)

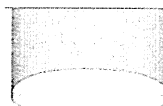
Width: 23-3/4 (60.3)

Depth: 2-3/8 (6.0)

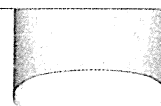
Depth with Air supply/return: 2-3/4 (6.9)

All dimensions are inches (centimeters) unless otherwise specified.

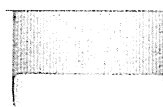
Multiple Diffuser Options



ADP
Curved Ribbed



ADSM
Curved Smooth



SDP
Square Ribbed



SDSM
Square Smooth

CSA+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

2BLT Volumetric Recessed Lighting 2'x4'



A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2BLT4 40L ADP EZ1 LP840

2BLT4													
Series	Air function	Lumens ²		Diffuser		Voltage		Driver	Color temperature				
2BLT4 2x4 BLT	(blank) Static A Air supply/return ¹	Standard efficiency (>100 LPW)	High efficiency^{3,4} (>130 LPW)	ADP	Curved, linear prisms	(blank)	MVOLT	EZ1	eldoLED dims to 1% (0-10 volt dimming)	LP830	82CRI, 3000 K		
				ADSM	Curved, smooth	120	120V			LP835	82CRI, 3500 K		
				SDP	Square, linear prisms	277	277V			LP840	82CRI, 4000 K		
				SDSM	Square, smooth	347	347V ⁵	SLD	Step-level dimming ⁶	LP850	82CRI, 5000 K		
				Includes trim rings to match sensed version						LE1	Lutron Ecosystem driver dims to 1% ^{6,7}	LP930	90CRI, 3000K
				ADPT	Curved, linear prisms	LP935	90CRI, 3500K						
				ADSMT	Curved, smooth	LP940	90CRI, 4000K						
				SDPT	Square, linear prisms	LP950	90CRI, 5000K						
				SDSMT	Square, smooth								

Controls		Occupancy control ¹⁰		Options	
(blank) No nLight®		(blank) No sensor control		EL7L 700 lumen battery pack ¹³	
N80 nLight® with 80% lumen management		nLight Wired Networking	Individual Control	EL14L 1400 lumen battery pack ¹³	
N80EMG nLight® with 80% lumen management For use with generator supply EM power ⁸		NES7 nLight™ nES 7 PIR integral occupancy sensor ¹¹	MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell ^{6,12}	EL14LSD 1400 lumen battery pack with self-diagnostic testing feature ^{13,14}	
N100 nLight® without lumen management		NESPD7 nLight™ nES PDT 7 dual technology integral occupancy control ¹¹	MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell ^{6,12}	CP Chicago plenum ¹⁵	
N100EMG nLight® without lumen management For use with generator supply EM power ⁸		NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ¹¹	nLight Wireless Zone	BGTD Bodine Generator Transfer Device ¹⁶	
NLTAIR nLight AIR enabled ⁹		NESPD7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ¹¹	RES7Z nLight Air PIR integral occupancy sensor with automatic dimming photocell for zone control	PWS1836 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit	
		nLight Wireless Networking		PWS1846 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuit	
		RES7N nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities		PWS1846 PWSLV Two cables: one 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuits; one 6' pre-wire, 3/8" diameter, 18 gauge, purple and gray ¹⁷	
				PWS1856LV 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/low voltage purple and grey wires ¹⁷	
				GLR Fast-blowing fuse ¹⁸	
				GMF Slow-blowing fuse ¹⁸	
				NPLT Narrow pallet	
				RRL_ RELOC®-ready luminaire ¹⁹	
				LATC Earthquake clip	
				DWAM Anti-Microbial paint	
				JP16 Job packaging	
				IP5X Gasketed diffuser compartment to meet IP5X rating ²⁰	

Accessories next page

Notes

- Air supply/return option only available with ADPT, ADSMT, SDPT, and SDSMT diffuser options.
- Approximate lumen output.
- All versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com.
- Air supply/return option, 90 CRI, and versions with integral sensor trim rings may not achieve 130 LPW.
- Not available with SLD EL7L, or EL14L options.
- Not available with N80, N80EMG, N100, N100EMG, NLTAIR, or occupancy control.

- Not available with controls, occupancy controls, or PWS options. Consult factory for Hi-Lume dimming.
- nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
- Must order with RES7N or RES7Z sensor. Only available with EZ1 driver. Not available with 72L, 72LHE, or 85LHE options.
- Must specify diffuser with trim rings. See sensor options on page 4.
- Requires N80, N80EMG, N100, or N100EMG.
- Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
- When using pre-wire option, use PWS1846 or PWS1846 PWSLV.

- For more information, please see the [PSSD2 specification sheet](#).
- Not available with N80, N80EMG, N100, or N100EMG.
- Must specify voltage. Requires BSE labeling, voltage specific. Consult factory for options.
- Not available with nLight wired/wireless network or individual controls.
- Must specify voltage, 120 or 277, with GLR and GFM fusing.
- For ordering logic consult [RRL_2013](#).
- Not available with air supply/return or Wired Networking (NES_) and Individual Control (MSD_) sensors.



2BLT-2X4

2BLT Volumetric Recessed Lighting 2'x4'

Non-Configurable BLT								
Stock/MTO	Catalog Description *	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT4 40L ADP LP835	00190887470789	3945	34	116	3500K/82 CRI	120-277	26
	2BLT4 40L ADP LP840	00190887470765	4032	34	118	4000K/82 CRI	120-277	26
	2BLT4 46L ADP LP835	00190887468656	4520	38.34	118	3500K/82 CRI	120-277	26
	2BLT4 46L ADP LP840	00190887468649	4620	38.34	120	4000K/82 CRI	120-277	26
	2BLT4 40L ADP EL14L LP835	00190887470925	3945	34	116	3500K/82 CRI	120-277	26
	2BLT4 40L ADP EL14L LP840	00190887470918	4032	34	118	4000K/82 CRI	120-277	26
	2BLT4 46L ADP EL14L LP835	00190887468670	4520	38.34	118	3500K/82 CRI	120-277	26
	2BLT4 46L ADP EL14L LP840	00190887468663	4620	38.34	120	4000K/82 CRI	120-277	26
MTO	2BLT4 40L ADP 347 LP835		3945	34	116	3500K/82 CRI	347	26
	2BLT4 40L ADP 347 LP840		4032	34	118	4000K/82 CRI	347	26
	2BLT4 46L ADP 347 LP835		4520	38.34	118	3500K/82 CRI	347	26
	2BLT4 46L ADP 347 LP840		4620	38.34	120	4000K/82 CRI	347	26

*Generic 0-10V Dimming to 10%.

Accessories: Order as separate catalog number.	
DGA24	Drywall grid adapter for 2x4 recessed fixture

nLight® Wired Control Accessories: Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight .			
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD GFX [color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocell controls	Model number	Cat-5 cable (plenum rated)	Model number
Full range dimming	nCM ADCX RJB	10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

nLight® AIR Control Accessories: Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair .	
Wall switches	Model number
On/Off single pole	rPODB [color]
On/Off two pole	rPODB 2P [color]
On/Off & raise/lower single pole	rPODB DX [color]
On/Off & raise/lower two pole	rPODB 2P DX [color]
On/Off & raise/lower single pole	rPODBZ DX WH ¹

Notes

- Can only be ordered with the RES7Z zone control sensor version.

Replacement Parts: Order as separate catalog number.		
*249P2N	2DBLT48 ADP LENS ASSEMBLY	4 ft. replacement lens
*249P2T	2DBLT48 SDP LENS ASSEMBLY	4 ft. replacement lens
*249P30	2DBLT48 ADSM LENS ASSEMBLY	4 ft. replacement lens
*249P33	2DBLT48 SDSM LENS ASSEMBLY	4 ft. replacement lens
*237LT2	2DBLT48 ADPT LENS ASSEMBLY	4 ft. replacement lens
*237LT4	2DBLT48 SDPT LENS ASSEMBLY	4 ft. replacement lens
*237LT6	2DBLT48 ADSMT LENS ASSEMBLY	4 ft. replacement lens
*237LT8	2DBLT48 SDSMT LENS ASSEMBLY	4 ft. replacement lens
*237LTA	2DBLT48 ADPT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M52	2DBLT48 SDPT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M5A	2DBLT48 ADSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M5L	2DBLT48 SDSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens



An AcuityBrands Company

LED: One Lithonia Way Conyers, GA 30012 Phone: 800-858-7763 www.lithonia.com © 2016 Acuity Brands Lighting, Inc.

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2BLT-2X4

2BLT Volumetric Recessed Lighting 2'x4'

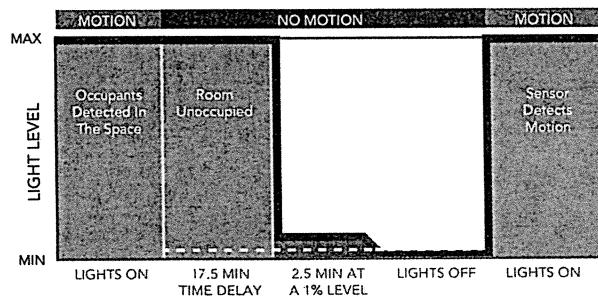
Sensor Options					
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking	nLight AIR Networking
		PIR	PDT		
MSD7ADCX	X	X			
MSDPDT7ADCX	X		X		
NES7		X		X	
NES7ADCX	X	X		X	
NESPD7			X	X	
NESPD7ADCX	X		X	X	
RES7N	X	X			X
RES7Z	X	X			X

Integrated Sensor with Individual Control

The MSD7ADCX PIR occupancy sensor/automatic dimming photocell is ideal for areas without obstructions and where daylight harvesting may be desired. Suggested applications include, but not limited to, hallways, corridors, storage rooms, and breakrooms or other areas where people are typically moving.

The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

Sequence of Operation

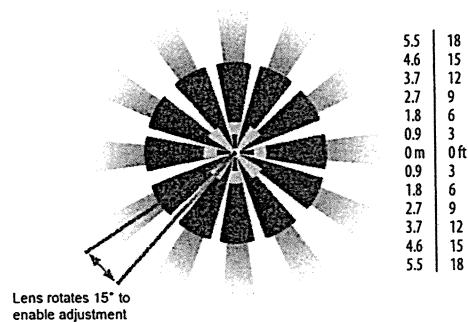


*The presetting on the automatic dimming photocell is 5fc.

Sensor Coverage Pattern Mini 360° Lens

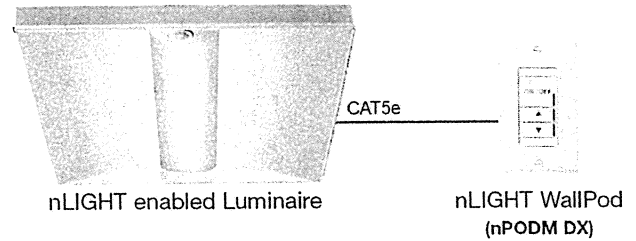
- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axes at distances of 2x the mounting height up to 15 ft (4.57 m) and
- 1.75x up to 20 ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor

9 FT Mounting



Lens rotates 15° to enable adjustment

Basic nLight Zone

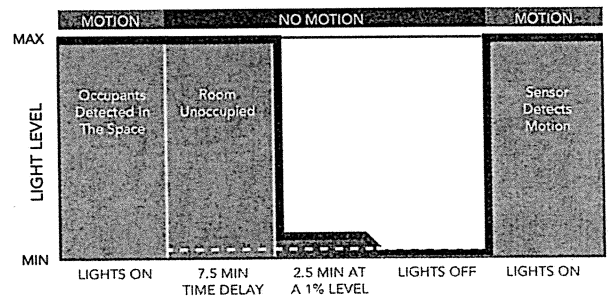


nLight Wired Networking

The nES 7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the NES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the NESPD7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

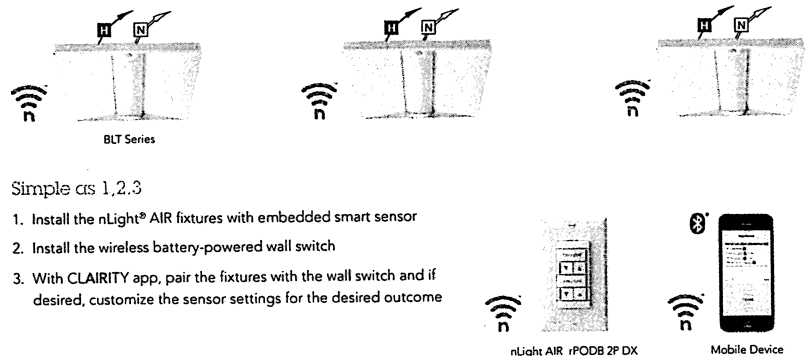
Sequence of Operation



*The presetting on the automatic dimming photocell is 5fc.

nLight AIR Wireless

nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and costly. The integrated rES 7 smart sensor is part of each luminaire in the nLight AIR network, which can be grouped to control multiple luminaires. The granularity of control with the digital PIR occupancy detection and daylight sensing makes a great solution for any application.



Simple as 1,2,3

1. Install the nLight® AIR fixtures with embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CLAIRITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome



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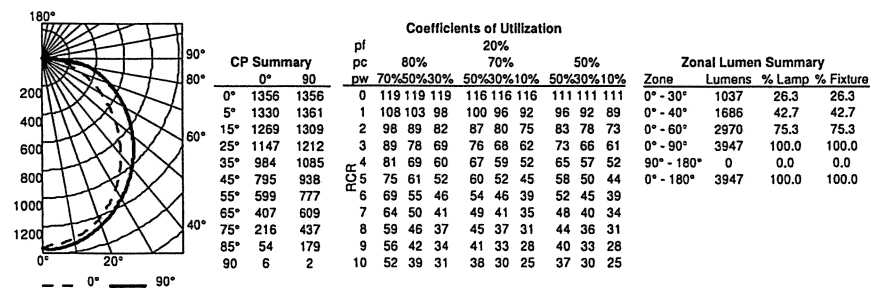
Rev. 01/19/17

2BLT-2X4

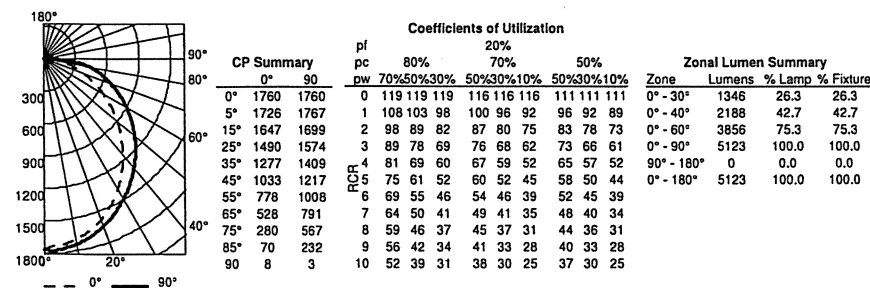
2BLT Volumetric Recessed Lighting 2'x4'

PHOTOMETRICS

2BLT4 40L ADP LP835, 3945 delivered lumens, test no. LTL28918P37, tested in accordance to IESNA LM-79

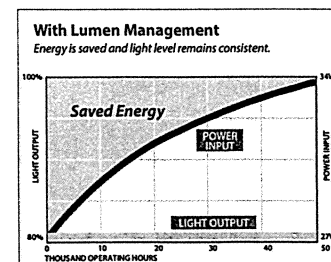
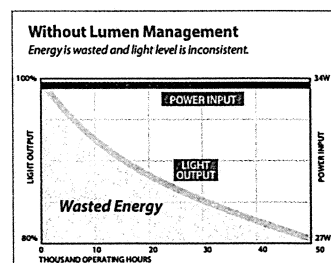


2BLT4 48L ADP LP835, 5121 delivered lumens, test no. LTL28918P41, tested in accordance to IESNA LM-79



Constant Lumen Management

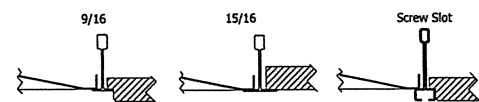
Enabled by the embedded nLight control, the 2BLT actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.



Performance Data			
Lumen Package	Lumens	Input Watts	LPW
30L ADP LP830	3286	30	110
30L ADP LP835	3371	30	113
30L ADP LP840	3445	30	115
30L ADP LP850	3614	30	121
40L ADP LP830	3846	34	113
40L ADP LP835	3945	34	116
40L ADP LP840	4032	34	118
40L ADP LP850	4230	34	124
48L ADP LP830	4993	45	111
48L ADP LP835	5121	45	114
48L ADP LP840	5234	45	116
48L ADP LP850	5492	45	122
60L ADP LP830	6014	53	114
60L ADP LP835	6169	53	117
60L ADP LP840	6305	53	119
60L ADP LP850	6615	53	125
72L ADP LP830	7388	67	110
72L ADP LP835	7579	67	113
72L ADP LP840	7746	67	115
72L ADP LP850	8127	67	121
AIR 30L ADP LP830	3075	30	103
AIR 30L ADP LP835	3138	30	105
AIR 30L ADP LP840	3223	30	108
AIR 30L ADP LP850	3250	30	108
AIR 40L ADP LP830	3599	34	105
AIR 40L ADP LP835	3673	34	108
AIR 40L ADP LP840	3772	34	110
AIR 40L ADP LP850	3804	34	111
AIR 48L ADP LP830	4672	45	104
AIR 48L ADP LP835	4897	45	109
AIR 48L ADP LP840	4897	45	109
AIR 48L ADP LP850	4939	45	110
AIR 60L ADP LP830	5628	53	106
AIR 60L ADP LP835	5743	53	108
AIR 60L ADP LP840	5899	53	111
AIR 60L ADP LP850	5949	53	112
AIR 72L ADP LP830	6914	67	103
AIR 72L ADP LP835	7055	67	105
AIR 72L ADP LP840	7247	67	108
AIR 72L ADP LP850	7309	67	109

HE Performance Data			
Lumen Package	Lumens	Input Watts	LPW
48LHE ADP LP830	4655	36	127
48LHE ADP LP835	4775	36	130
48LHE ADP LP840	4880	36	133
48LHE ADP LP850	5121	36	139
60LHE ADP LP830	5473	42	129
60LHE ADP LP835	5614	42	132
60LHE ADP LP840	5738	42	135
60LHE ADP LP850	6020	42	142
72LHE ADP LP830	6805	52	130
72LHE ADP LP835	6981	52	133
72LHE ADP LP840	7135	52	136
72LHE ADP LP850	7486	52	143
85LHE ADP LP830	8189	64	127
85LHE ADP LP835	8400	64	131
85LHE ADP LP840	8585	64	134
85LHE ADP LP850	9008	64	140

MOUNTING DATA	
Ceiling Type	Appropriate Trim Type
Exposed grid tee (1' and 9/16")	G
Concealed grid tee	G
Plaster or plasterboard	G*



*DGA accessory available to provide ceiling trim flange and fixture support for plaster or plasterboard ceiling. Recommended rough-in dimensions for DGA installation is 24-3/4" x 48-3/4" (Tolerance is +1/8", -0").

Brigidos IGA Lighting Project



energysource

December 14th 2016

Brigidos - Pascoag
54 Sayles Ave.
Pascoag, RI 02859

Re: Electrical Upgrade

Brigidos - Pascoag INVOICE NO.

Quantity	Materials/Description			Total
108	2X4 KIT VOLUMETRIC RECESSED			\$ 24,818.55
4	NF 40W LED 4' Tamper Proof Vapor Tight			\$ 858.35
4	2X2 KIT VOLUMETRIC RECESSED			\$ 741.75
5	4 x 4' T8 Ballast/12W LED Lamp KIT			\$ 577.38
28	LED SCREWIN			\$ 644.36
5	NF 41W Surface Mount Canopy (performance)			\$ 2,211.37
2	NF 71W LED Area light-type III beam			\$ 1,240.95
2	NF DARK SKY, 50W, 4000K, 120 OR 277VAC, ECO, KNUCKLE MOUNT			\$ 488.23
5	NF Escort II EMERGI-LITE			\$ 668.46
2	NF GLASS FRONT, G2, 35W, 4000K, 120-277VAC, DIM, BRONZE			\$ 508.22
5	T8 FIXT 2L 4FT STRIP L KIT			\$ 518.10
1	T8 FIXT 2L 4FT WRAP KIT			\$ 153.52
13	T8 IND REFLECT KIT 4L8' WHITE L			\$ 1,761.50
16	T8 FIXT 4L 8FT STRIP L KIT			\$ 2,629.17
Total				\$ 37,819.91

Interest on accounts not paid in 30 days from the date of
invoice shall accrue at one percent (1%) per month.

Payment Terms: Upon Receipt

PLEASE SEND REMITTANCE TO:

**ENERGY SOURCE, LLC
311 BROADWAY
PROVIDENCE, RI 02909**

**PHONE: 401-490-7555
FAX: 401-490-7805**

CONTRACT

Brigidos - Pascoag
54 Sayles Ave.
Pascoag

RI 02859



The costs of this project includes all labor and materials necessary to install the measures listed in the attached proposal. The customer is eligible to receive an incentive from the Utility Company which will be paid directly to Energy Source by the Utility Company upon completion of this project. Also included in this proposal is the cost of recycling the fluorescent lamps removed as a result of the installation. By signing this agreement customer agrees to provide temporary storage of these materials for approximately 4-6 weeks until removed by a licensed hazardous waste company contracted by Energy Source.

Total Project Cost	\$39,048
Utility Incentive	\$21,497
Customer Cost	\$17,551

ACKNOWLEDGED AND ACCEPTED

Brigidos - Pascoag is in agreement with the scope of work and terms set forth in this proposal and that said services will be provided at the cost listed above.

Unless financing Brigidos - Pascoag agrees to pay the net cost of this project in two equal installments: \$8,775 payable upon execution of this proposal and \$8,775 payable upon completion of this project.

BY: Mark A. Brigido DATE: 3-5-17
TITLE: President P.O. #: _____
FED ID # 05-0384190

CUSTOMER REPORT

Customer Name: Brigidos - Pascoag
Street Address: 54 Sayles Ave.
City: Pascoag
State: RI
Zip Code: 02859
Contact: Mark Brigido
Phone: 401-934-2283

Electric Account #

10395001

LIFT/BUCKET TRUCK NEEDED

Bucket Truck

Total Project Cost

\$37,650.12

EXISTING LIGHTING SYSTEM										PROPOSED LIGHTING SYSTEM										
LINE	MEASURE LOCATION	EXISTING SYSTEM	EXISTING QTY	EXISTING HOURS	EXISTING WATTS	EXISTING KW	EXISTING KWH	OPERATING COST	NEW FIXTURE TYPE	PROPOSED QTY	PROPOSED HOURS	PROPOSED WATTS	PROPOSED KW	PROPOSED KWH	OPERATING COST	SENSOR TYPE	SENSOR QTY	KW SAVED	KWH SAVED	HEIGHT
1	Entrance Foyer	Fluor - 4L4 EE/STD	4	5560	160	0.64	3,558	\$498	2X4 KIT VOLUMETRIC RECESSED	4	5560	35	0.14	778	\$109		0	0.50	2,780	12
2	Main Retail Floor 2x4	Fluor - 2L4 EE/EEM	90	5560	70	6.3	35,028	\$4,904	2X4 KIT VOLUMETRIC RECESSED	90	5560	35	3.15	17,514	\$2,452		0	3.15	17,514	18
3	Main Retail Floor 2x2	Fluor - 2L4 EE/EEM	9	5560	70	0.63	3,503	\$490	2X2 KIT VOLUMETRIC RECESSED	4	5560	30	0.12	667	\$93		0	0.51	2,836	18
4	Main Retail Floor Track Lights	Incand - 90 W	15	5560	90	1.35	7,506	\$1,051	LED 12W PAR30 SCREW IN 36degree	15	5560	12	0.18	1,001	\$140		0	1.17	6,505	15
5	Bakery	Fluor - 4L4 EE/STD	8	5560	160	1.28	7,117	\$996	2X4 KIT VOLUMETRIC RECESSED	8	5560	35	0.28	1,557	\$218		0	1.00	5,560	10
6	Back Room in Bakery	Fluor - 2L4 STD/EEM	1	5560	86	0.086	478	\$67	T8 FIXT 2L 4FT WRAP KIT	1	5560	23	0.02	129	\$18		0	0.06	349	10
7	Prep Room - Meat	Fluor - 2L8 EE/EEM	5	5560	123	0.615	3,419	\$479	4 x 4" T8 Ballast/13W LED Lamp KIT	5	5560	46	0.23	1,290	\$181		0	0.38	2,129	8
8	Prep Room - Meat	CFL - 42 W - Hardwired	8	5560	48	0.384	2,135	\$299	40W 4FT Tamper-Proof Vapor Tight 4000K	4	5560	40	0.16	890	\$125		0	0.22	1,245	8
9	Rear Storage	Fluor - 2L8 EE/EEM	12	5560	123	1.476	8,207	\$1,149	T8 IND REFLECT KIT 4L 8" WHITE L	10	5560	46	0.46	2,580	\$361		0	1.01	5,627	12
10	Rear Storage	Fluor - 2L4 STD/EEM	1	5560	86	0.086	478	\$67	T8 FIXT 2L 4FT STRIP L KIT	1	5560	23	0.02	129	\$18		0	0.06	349	12
11	Mens Room	Fluor - 2L4 T8/EL 32W	1	2000	60	0.06	120	\$17	2X2 KIT VOLUMETRIC RECESSED	1	2000	30	0.03	60	\$8		0	0.03	60	8
12	Ladies Room	Fluor - 2L4 T8/EL 32W	1	2000	60	0.06	120	\$17	2X2 KIT VOLUMETRIC RECESSED	1	2000	30	0.03	60	\$8		0	0.03	60	8
13	Break Room	Fluor - 2L4 T8/EL 32W	2	5560	60	0.12	667	\$93	2X2 KIT VOLUMETRIC RECESSED	2	5560	30	0.06	334	\$47		0	0.06	334	8
14	Freezer	Incand - 90 W	2	5560	90	0.18	1,001	\$140	LED 9.5W A19 SCREW-IN	2	5560	10	0.02	106	\$15		0	0.16	895	6
15	Cooler	Incand - 90 W	2	5560	90	0.18	1,001	\$140	LED 9.5W A19 SCREW-IN	2	5560	10	0.02	106	\$15		0	0.16	895	6
16	Prep Room - Produce	Fluor - 2L8 EE/EEM	4	5560	123	0.492	2,736	\$383	T8 IND REFLECT KIT 4L 8" WHITE L	3	5560	46	0.14	774	\$108		0	0.35	1,962	12
17	Walk In Fridge	Incand - 90 W	2	5560	90	0.18	1,001	\$140	LED 9.5W A19 SCREW-IN	2	5560	10	0.02	106	\$15		0	0.16	895	6
18	Compressor Room	Fluor - 2L4 STD/EEM	3	1000	86	0.258	258	\$36	T8 FIXT 2L 4FT STRIP L KIT	3	1000	23	0.07	70	\$10		0	0.19	188	5
19	Cashier Lamps	Incand - 90 W	4	5560	90	0.36	2,002	\$280	LED 9.5W A19 SCREW-IN	4	5560	10	0.04	211	\$30		0	0.32	1,790	5
20	Customer Service Area	Incand - 90 W	2	5560	90	0.18	1,001	\$140	LED 10W BR30 SCREW IN DimTone	2	5560	10	0.02	111	\$16		0	0.16	890	12
21	Customer Service Office	Fluor - 2L4 EE/STD	2	2000	80	0.16	320	\$45	2X4 KIT VOLUMETRIC RECESSED	2	2000	35	0.07	140	\$20		0	0.09	180	8
22	Exterior Floods P-Lot Side	HPS - 250 W	2	2500	295	0.59	1,475	\$207	NF 71W LED Area light-type III beam	2	2500	71	0.14	355	\$50	SC-U	0	0.45	1,120	20
23	Exterior Small Flood P-Lot Side	HPS - 70 W	1	2500	95	0.095	238	\$33	NF DARK SKY, 50W, 4000K, 120 OR 277VAC, ECO, KNUX	1	2500	50	0.05	125	\$18		0	0.05	113	20
24	Canopy on Street Side	HPS - 100 W	5	2500	138	0.69	1,725	\$242	NF 41W Surface Mount Canopy (performance)	5	2500	41	0.21	513	\$72		0	0.49	1,213	20
25	Halgren over Loading Door	HPS - 310 W	1	2500	365	0.365	913	\$128	NF DARK SKY, 50W, 4000K, 120 OR 277VAC, ECO, KNUX	1	2500	50	0.05	125	\$18		0	0.32	788	15

Customer Name: Brigidos - Pascoag
Street Address: 54 Sayles Ave.
City: Pascoag
State: RI
Zip Code: 02859
Contact: Mark Brigido
Phone: 401-934-2283

Electric Account #
10395001

LIFT/BUCKET TRUCK NEEDED
Bucket Truck

Total Project Cost
\$57,650.12

EXISTING LIGHTING SYSTEM										PROPOSED LIGHTING SYSTEM										
		MH - 100 W	2	2500	120	0.24	600	\$84	NF GLASS FRONT, G2, 35W, 4000K, 120-277VAC, DIM.	2	2500	35	0.07	175	\$25	0	0	0.17	425	15
		Incand - 75 W	1	2500	75	0.075	188	\$26	LED 13W PAR38 SCREW IN 40degree	1	2500	13	0.01	33	\$5	0	0	0.06	155	15
		HPS - 100 W	5	4380	138	0.69	3,022	\$423	NF Escort II EMERGI-LITE	5	4380	0	0.00	0	\$0	0	0	0.69	3,022	18
		Fluor - 11.8 EE/STD	16	5560	83	1.328	7,384	\$1,034	T8 FIXT 4L 8FT STRIP L KIT	16	5560	46	0.74	4,128	\$578	0	0	0.59	3,256	
		Fluor - 11.4 EE/STD	1	5560	50	0.05	278	\$39	T8 FIXT 2L 4FT STRIP L KIT	1	5560	23	0.02	129	\$18	0	0	0.03	149	
TOTAL			212		3,294	19.20	97,476	\$13,647		200		898	7	34,193	\$4,787	0	0	12.62	63,283	

Burrillville School Department Lighting Project

Lighting Systems & Sensors Application 2016 Retrofit

nationalgrid
HERE WITH YOU. HERE FOR YOU.

ALL FIELDS ON THIS PAGE ARE REQUIRED TO COMPLETE YOUR APPLICATION.

CUSTOMER/ACCOUNT HOLDER INFORMATION

COMPANY NAME BSD		CONTACT PERSON David Funder		APPLICATION DATE 12/8/16	
INSTALL SITE BHS, WCC, SFE		PHONE 568-1301		FAX NUMBER	
EMAIL ADDRESS Funder@BSD-RI.NET		SQUARE FEET (COVERED BY THIS APPLICATION)			
STREET ADDRESS 2300 Brown Highway		CITY Warrisville		STATE RI	ZIP 02830
MAILING ADDRESS (IF DIFFERENT)		CITY		STATE	ZIP
ELECTRIC COMPANY NAME PUD		<input checked="" type="checkbox"/>		ELECTRIC ACCOUNT NUMBER (OR COPY OF ELECTRIC BILL)	
GAS COMPANY NAME		<input checked="" type="checkbox"/>		GAS ACCOUNT NUMBER (OR COPY OF GAS BILL)	

BUILDING TYPE (PLEASE PLACE "X" IN APPROPRIATE BALLOT BOX)

- | | | | | | |
|--|--|---|--|---|---------------------------------------|
| <input type="checkbox"/> ASSEMBLY | <input type="checkbox"/> FAST FOOD | <input type="checkbox"/> HOTEL | <input type="checkbox"/> MULTI STORY RETAIL | <input type="checkbox"/> RELIGIOUS | <input type="checkbox"/> SMALL RETAIL |
| <input type="checkbox"/> AUTOMOTIVE | <input type="checkbox"/> FULL SERVICE RESTAURANT | <input type="checkbox"/> LARGE REFRIGERATED SPACE | <input type="checkbox"/> MULTIFAMILY HIGH-RISE | <input checked="" type="checkbox"/> K-12 SCHOOL | <input type="checkbox"/> UNIVERSITY |
| <input type="checkbox"/> BIG BOX | <input type="checkbox"/> GROCERY | <input type="checkbox"/> LARGE OFFICE | <input type="checkbox"/> MULTIFAMILY LOW-RISE | <input type="checkbox"/> SMALL OFFICE | <input type="checkbox"/> WAREHOUSE |
| <input type="checkbox"/> COMMUNITY COLLEGE | <input type="checkbox"/> HEAVY INDUSTRIAL | <input type="checkbox"/> LIGHT INDUSTRIAL | <input type="checkbox"/> OTHER: | | |
| <input type="checkbox"/> DORMITORY | <input type="checkbox"/> HOSPITAL | <input type="checkbox"/> MOTEL | | | |

PAYMENT METHOD (PAYEE MUST SUBMIT A W-9 FORM)

PAYMENT TO:	<input checked="" type="checkbox"/> CUSTOMER	CUSTOMER — TAX ID# (REQUIRED)	VENDOR/INSTALLER — TAX ID# (REQUIRED IF RECEIVING INCENTIVE)
	<input type="checkbox"/> VENDOR/INSTALLER		
CHECK PAYABLE TO:	CUSTOMER COMPANY TYPE:	VENDOR COMPANY TYPE:	
	<input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT	<input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT	

VENDOR INFORMATION

AUTHORIZED VENDOR/INSTALLER	CONTACT NAME		
STREET ADDRESS	CITY	STATE	ZIP
PHONE	EMAIL ADDRESS		
DATE	AUTHORIZED VENDOR/INSTALLER SIGNATURE (NOT APPLICABLE IF CUSTOMER IS PAYEE)		
	X		

CUSTOMER ACCEPTANCE OF TERMS

PRE-INSTALLATION			ANTICIPATED COMPLETION DATE
<input checked="" type="checkbox"/> I CERTIFY THAT ALL STATEMENTS MADE IN THIS APPLICATION ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I HAVE READ AND AGREE TO THE TERMS AND CONDITIONS ON THE BACK OF THIS FORM.			12/31/16
DATE 12/8/16	PRINT NAME David Funder	AUTHORIZED SIGNATURE X	
POST-INSTALLATION			
<input type="checkbox"/> I CERTIFY THAT I HAVE SEEN THE ENERGY EFFICIENCY MEASURES THAT HAVE BEEN INSTALLED AND I AM SATISFIED WITH THEIR INSTALLATION.			
DATE 3/7/17	PRINT NAME	AUTHORIZED SIGNATURE X	

Table 1C: Retrofit Lighting Systems Inventory Worksheet

Building and Room Identification (Installation Site): WLC

Ex.	Location	Qty	Lamp/Ballast Description	Device Code*	Existing Watts per Fixture/Device	Product Code** (Table 1A)	Qty	Lamp/Ballast Description	Device Code*	Proposed Watts per Fixture/Device	Annual Operating Hours***	Unit Incentive \$	Total Incentive \$
1	Lobby-East Entrance	4	4' 3 lamp T12 Magnetic	3F40SEM	110 watts	88A	4	LED Interior 2x2 Fixture	1LO35	35 watts	3,200 hours	\$50	\$200
2	250 M	21	250 M	140250S	205	80B	10	LED Hanging	4L170	170	3,100	200	2,120
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20													
Total Requested Incentive (this page):										\$2,120			

Open File

NOTE: An electronic version (Excel) of this sheet must be submitted for inventories exceeding this page.

* The Device Code list is available within the additional tabs of the embedded Excel spreadsheet.

** For all DLC Premium LED fixtures please add a P at the end of the Product Codes outlined in Table 1A (i.e. 88AP)

*** Facility lighting must average a minimum of 2,000 hours per year, except Municipal Facilities who must contact their Program Administrator for more information on eligibility requirements.

Lighting Systems & Sensors 2016 Retrofit Program RI

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Rev. 02/24/2016

1-800-767-1706 / Fax: 1-315-460-9803

Efficiency@nationalgrid.com
www.ngrid.com/rbus-ee

40 Sylvan Road, Waltham, MA 02451-1120

Table 1C: Retrofit Lighting Systems Inventory Worksheet

Building and Room Identification (Installation Site): BUS CAF

Ex.	Location	Qty	Lamp/Ballast Description	Device Code*	Existing Watts per Fixture/Device	Product Code** (Table 1A)	Qty	Lamp/Ballast Description	Device Code*	Proposed Watts per Fixture/Device	Annual Operating Hours***	Unit Incentive \$	Total Incentive \$
1	Lobby-East Entrance	4	4' 3 lamp T12 Magnetic	3F40SEM	110 watts	88A	4	LED Interior 2x2 Fixture	1LO35	35 watts	3,200 hours	\$50	\$200
2	BUS CAF	24	400 MH	1M04009	455	86B14	14	LED 2x4	1L140	140	2,400	200	2,800
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If necessary, use an embedded Excel file to document additional inventory.										Total Requested Incentive (this page): \$ 2,800			

Open File

NOTE: An electronic version (Excel) of this sheet must be submitted for inventories exceeding this page.

* The Device Code list is available within the additional tabs of the embedded Excel spreadsheet.

** For all DLC Premium LED fixtures please add a P at the end of the Product Codes outlined in Table 1A (i.e. 88AP)

*** Facility lighting must average a minimum of 2,000 hours per year, except Municipal Facilities who must contact their Program Administrator for more information on eligibility requirements.

Lighting Systems & Sensors 2016 Retrofit Program RI

Table 1C: Retrofit Lighting Systems Inventory Worksheet

Building and Room Identification (Installation Site):

SFE Cym

Ex.	Location	Qty	Lamp/Ballast Description	Device Code*	Existing Watts per Fixture/Device	Product Code** (Table 1A)	Qty	Lamp/Ballast Description	Device Code*	Proposed Watts per Fixture/Device	Annual Operating Hours***	Unit Incentive \$	Total Incentive \$
1	Lobby-East Entrance	4	4' 3 lamp T12 Magnetic	3F40SEM	110 watts	88A	4	LED Interior 2x2 Fixture	1LO35	35 watts	3,200 hours	\$50	\$200
2	Cym	16	2x4 LED	1M0350S	285	86B	6	2x4 LED	1L140	140	2400	200	1800
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Total Requested Incentive (this page):										\$1,200			

Open File

If necessary, use embedded Excel file to document additional inventory.

NOTE: An electronic version (Excel) of this sheet must be submitted for inventories exceeding this page.

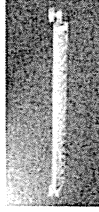
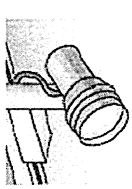
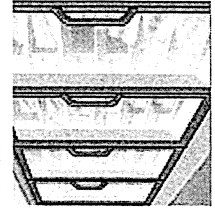
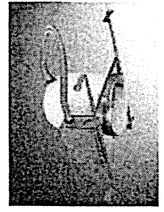

* The Device Code list is available within the additional tabs of the embedded Excel spreadsheet.

** For all DLC Premium LED fixtures please add a P at the end of the Product Codes outlined in Table 1A (i.e. 88AP)

*** Facility lighting must average a minimum of 2,000 hours per year, except Municipal Facilities who must contact their Program Administrator for more information on eligibility requirements.

Lighting Systems & Sensors 2016 Retrofit Program RI

Table 1A: Lighting Systems Eligibility and Incentive Levels (Complete Table 1C for Lighting System Installations)

Product Code	Measure Description	Per Fixture Incentive		Eligibility Criteria	Min Watts Saved	Image
		DLC Standard	DLC Premium			
Table 1A.2: Commercial Interior Fixture Options						
91	LED Interior Directional: Wallwash/Wall Grazing Fixture	\$50	\$60	LED Interior Directional - Wallwash/Wall Grazing Fixture, surface or recessed mounted. Retrofit kits are eligible for this incentive. Eligible fixtures are required to be listed by the Design Lights Consortium or must meet DLC Technical Requirements #4	27	
84	LED Track or Mono-Point Directional Fixtures	\$20	\$30	Integral LED or Mono-Point mounted track fixtures. Eligible fixtures are required to be listed by Design Lights Consortium and must meet DLC Technical Requirements #4	30	
82A	LED Display Case: Cooler, Freezer Case or Refrigerated Shelving Fixtures – 3' & 4' Fixture	\$30	\$40	Eligible LED Cooler and Freezer Case fixtures are required to be listed by the Design Lights Consortium and must meet DLC Technical Requirements #5. Please specify quantity of end and/or center mount fixtures.	14	
82B	LED Display Case: Cooler, Freezer Case or Refrigerated Shelving Fixtures – 5' & 6' Fixture	\$50	\$60	Eligible LED Cooler and Freezer Case fixtures are required to be listed by the Design Lights Consortium and must meet DLC Technical Requirements #5. Please specify quantity of end and/or center mount fixtures	23	
80B	LED Down Light Fixtures – Hard Wired Recessed, Surface Mount or Pendant (≥25W-49W)	\$50	\$75	Eligible LED Down Lights are required to be hardwired fixtures greater than or equal to 25 watts* up to a maximum of 49 watts and must meet DLC Technical Requirements #4 Standard & Premium	75	
80C	LED Down Light Fixtures – Hard Wired Recessed, Surface Mount or Pendant (≥50W)	\$75	\$125	Eligible LED Down Lights are required to be hardwired fixtures greater than or equal to 50 watts and must meet DLC Technical Requirements #4 Standard & Premium	150	
86A	LED Interior High Bay/Low Bay (20W - 99W)	\$100	\$150	LED Interior High Bay/Low Bay - minimum 20W. Retrofit kits are eligible for this incentive. Eligible fixtures are required to be listed by the Design Lights Consortium and must meet DLC Technical Requirements #8 or if a retrofit kit #14. Only one incentive per fixture or retrofit kit.	60	
86B	LED Interior High Bay/Low Bay (100W - 199W)	\$200	\$250	LED Interior High Bay/Low Bay - minimum 100W. Retrofit kits are eligible for this incentive. Eligible fixtures are required to be listed by the Design Lights Consortium and must meet DLC Technical Requirements #8 or if a retrofit kit #14. Only one incentive per fixture or retrofit kit	150	
86C	LED Interior High Bay (>=200W)	\$300	\$350	LED Interior High Bay/Low Bay - minimum 200W. Retrofit kits are eligible for this incentive. Eligible fixtures are required to be listed by the Design Lights Consortium and must meet DLC Technical Requirements #8. Only one incentive per fixture or retrofit kit.	400	