



PASCOAG
UTILITY DISTRICT

Demand Side Management

2021 Report

Docket 5084

Pascoag Utility District
253 Pascoag Main Street
Pascoag, RI 02859

401-568-6222
ddolan@pud-ri.org
www.pud-ri.org

Table of Contents

Contents:

Letter of Transmittal.....	1
Schedule A Proposed Budget for Demand Side Management Program 2021.....	2
Schedule B Executive Summary.....	4
Schedule C Program Details 2021.....	10
Schedule D-1 Expenses and Balances 2020.....	25
Schedule D-2 Projected Expenses and Balances 2020.....	26
Schedule E Demand Side Management Tariff.....	27
Schedule F Highlights of Pascoag's 2020 Program.....	28
Schedule G Customer Information.....	30
Schedule H 2020 Lighting Project Information.....	34
Schedule I Supporting Documents.....	35

November 6, 2020

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

Re: RIPUC Docket No. 5084

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 2021. This submission includes Pascoag's Executive Summary, Program Details for 2021, reconciliation of 2020 DSM activities and budget, and other schedules that support this docket.

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

Very truly yours,



Desarae Dolan
DSM Coordinator

Cc: Mr. William Bernstein, Esquire

Schedule A-1: Proposed Budget for 2021 DSM Program

Pascoag Utility District
Demand Side Management Programs - 2021 Proposed Budget

Estimated carry over from 2020	\$ 20,931
Estimated sales for 2021	\$ 109,618
RGGI Funds	\$ 71,383
Estimated RGGI Fund Carryover 2020	\$ 38,030
Net 2021 budget	<u>\$ 239,962</u>

2021 Proposed Budget

<u>Residential Program</u>		
DR2101	Home Energy Audits with Weatherization Incentives	\$ 94,413 120 audits and weatherization incentives-RGGI Funds
DR2102	Residential ENERGY STAR Offerings	\$ 8,000 Energy Star Appliances, Refrigerator/Freezer Buyback and Home Office/Electronics Equipment
DR2103	HVAC & Water Heating Program	\$ 7,000 Central AC, Central Heat Pump, Mini-Split Heat Pumps and Heat Pump Water Heaters
DR2104	Change a Light Program	\$ 1,750 Lighting outreach kits for income eligible customers
DR2105	Committed for 2020 Programs	\$ 1,500 To accommodate programs with depleted funds from 2019
DR2106	Pilot Program: Landlord/Renter Weatherization Incentives	\$ 30,000 Energy Audits and Weatherization for Rental Units. \$15,000 will come from RGGI Funds
	Net Residential	\$ 142,663
<u>Industrial/Commercial</u>		
DI2101	Small Business ENERGY STAR Offerings	\$ 1,200 ENERGY STAR Office Equipment and Commercial Appliances
DI2102	Committed Funds- Lighting & EE Projects	\$ 5,437 Pascoag Public Library Lighting Project and Ashton Court Mini-Split Project
DI2103	Potential 2020 Lighting & EE Projects	\$ 27,562
DI2104	LED Street Light Incentive	\$ 10,000 Public Street Lighting Project
	Net Industrial/Commercial	\$ 44,199
<u>Administrative</u>		
DA2101	Administrative	\$ 21,000 Administrative labor, mileage and supplies.
DA2102	Energy Consultant	\$ 10,000 Energy Consultant to provide guidance and recommendations on DSM program.
DA2103	Program Research and Development	\$ 500 Funds for future development of programs.
	Net Administrative	\$ 31,500
<u>Community Outreach, Marketing & Education</u>		
DC2101	Outreach/Education	\$ 7,500 Billing inserts, conservation promotional items, and advertisements.
DC2102	Jesse Smith Library Partnership	\$ 3,600 To partner with the Jesse Smith Library on an Energy Efficiency Project.
DC2103	Community Events	\$ 9,000 To promote Energy Efficiency @ Community Events (Green Festival, Family Fair, ...)
DC2104	Energy Efficiency Management continuing education	\$ 1,500 Workshops and Conferences related to the DSM program
	Net Community Outreach, Marketing & Education	\$ 21,600
	Estimated DSM 2021 Budget/ Expenses/ Balance	\$ <u>239,962</u>

Schedule A-2: 2020/2021 Comparison

Pascoag Utility District

Demand Side Management Programs - 2020/2021 Comparison

	2020	2021
Actual/Estimated carry over from 2020/2021	\$ 6,720	\$ 20,931
Estimated sales for 2020/2021	\$ 110,262	\$ 109,618
RGGI Funds	\$ 63,617	\$ 71,383
RGGI Carryover Funds	\$ 20,083	\$ 38,030
Net 2020/2021 budget	\$ 200,682	\$ 239,962

	2020 Proposed Budget	2021 Proposed Budget	Change in \$	% Change
Residential Program				
Home Energy Audits with Weatherization Incentives	\$ 65,000	\$ 94,413	\$ 29,413.00	45%
Residential ENERGY STAR Offerings	\$ 7,315	\$ 8,000	\$ 685.00	9%
HVAC & Water Heating Program	\$ 7,000	\$ 7,000	\$ -	0%
Change a Light Program	\$ 1,000	\$ 1,750	\$ 750.00	75%
Committed for 2019/2020 Programs	\$ 2,353	\$ 1,500	\$ (853.00)	-36%
Pilot Program: Landlord/Renter Weatherization Incentives	\$ -	\$ 30,000	\$ 30,000.00	
Net Residential	\$ 82,668	\$ 142,663	\$ 59,995.00	73%
Industrial/Commercial				
Small Business ENERGY STAR Offerings	\$ 1,200	\$ 1,200	\$ -	0%
Burrillville School Department	\$ 18,700	\$ -	\$ (18,700.00)	-100%
Committed Funds- Lighting & EE Projects	\$ 22,764	\$ 5,437	\$ (17,327.00)	-76%
Potential Lighting & EE Projects	\$ 10,250	\$ 27,562	\$ 17,312.00	169%
LED Street Light Incentive	\$ 10,000	\$ 10,000	\$ -	0%
Net Industrial/Commercial	\$ 62,914	\$ 44,199	\$ (18,715.00)	-30%
Administrative				
Administrative	\$ 21,000	\$ 21,000	\$ -	0%
Energy Consultant	\$ 10,000	\$ 10,000	\$ -	0%
Program Research and Development	\$ 500	\$ 500	\$ -	0%
Net Administrative	\$ 31,500	\$ 31,500	\$ -	0%
Community Outreach, Marketing & Education				
Funds for Follow-up to Successful Programs	\$ 1,000	\$ -	\$ (1,000.00)	-100%
Outreach/Education	\$ 7,500	\$ 7,500	\$ -	0%
Jesse Smith Library Partnership	\$ 3,600	\$ 3,600	\$ -	0%
Community Events	\$ 9,000	\$ 9,000	\$ -	0%
Energy Efficiency Management continuing education	\$ 2,500	\$ 1,500	\$ (1,000.00)	-40%
Net Community Outreach, Marketing & Education	\$ 23,600	\$ 21,600	\$ (2,000.00)	-8%
Estimated DSM Budgets/Change \$/Change%	\$ 200,682	\$ 239,962	\$ (39,280.00)	20%

Schedule B: Executive Summary

Submitted by Desarae Dolan

Pascoag Utility District's (PUD) 2021 Demand Side Management Program reflects an opportunity to enhance the utility's energy efficiency offerings to its customers during these ever changing times. Working in partnership with the Rhode Island Office of Energy Resources (OER) and with their energy consultant, Optimal Energy, PUD is committed to implementing a series of strategies that will enhance and expand ratepayer access to important energy-cost saving measures, with the added benefit of reducing the community's greenhouse gas emissions. Through financial and technical assistance offerings, PUD has worked closely with OER staff to begin advancing two recommendations and six strategies as a pathway for the future of the utility's demand side management program (the full strategy document is contained in Schedule I). These recommendations and strategies are described below, with details on progress made in 2020 and proposed program enhancements in 2021.

Administrative Recommendation #1: Align energy efficiency funding more closely with sector SBC contributions.

To ensure equity among customer segments, PUD will endeavor to more closely align demand side management program spending with system benefit charge collections from each sector. In 2020, 57% of the budget was devoted to residential programs and 43% of the budget was dedicated to commercial programs. PUD proposes to increase the funding level for residential energy audits to \$94,413 as it is our last year receiving RGGI funds for residential energy audits and weatherization incentives and we will have a large carryover of RGGI funds. This would bring the residential portion of the budget to 76%. The commercial portion of the budget represents 24% due to the Burrillville School Department not being able to move forward with the Burrillville High School lighting project. In addition, after reaching out to businesses in the community it seems that they are hesitant to plan projects this year due to the uncertainty of COVID-19. We have allocated funds for the Potential 2020 Lighting & EE Projects line items and will continue to provide outreach to our commercial and industrial customers about this program.

[1] OER has committed a portion of the proceeds from Rhode Island's participation in the Regional Greenhouse Gas Initiative (2018-A and 2018-B) to promote the accelerated adoption of cost-effective energy efficiency measures by customers within the Pascoag Utility District and support the delivery of cost-effective energy programs and incentives to electric utility customers in the Pascoag Utility District over 2019-2021.

Schedule B: Executive Summary

Administrative Recommendation #2: Account for and report on full costs and benefits as defined in the Rhode Island Cost-Effectiveness Test.

PUD recognizes the importance of accurately tracking energy and cost savings data, as well as appropriately accounting for all benefits of demand side management. However, staff constraints have historically prevented more detailed analysis than has been filed through the demand side management plan and year-end report. In 2019, PUD retained Optimal Energy as its energy efficiency consultant to help guide data collection, cost-benefit analysis, and program development moving forward. Pascoag Utility now has the ability to submit a comprehensive data overview in the mid and year end reports that includes metrics such as annual/lifetime savings, peak savings, participants, cost-to-achieve, and carbon reductions.

Strategy #1: Decrease energy burden and address energy-related school construction priorities in Burrillville Public Schools located within the Pascoag District.

Reducing energy use and costs through efficiency improvements in schools would allow schools to reallocate cost savings to other projects, and comprehensive energy efficiency has additional benefits for health and education outcomes. Helping the schools is a priority strategy, with benefits that extend to students, staff, and the community.

The Burrillville School Department has completed major lighting projects in three of its five schools in 2018. In 2019, the Burrillville School Department continued the success of its energy efficiency efforts by completing a lighting project at the Levy Rink. They had planned to begin work on a lighting project for the Burrillville High School in 2020 but due to budgetary constraints they had to table the project. Unfortunately, the Burrillville School Department will not be able to move forward with this project in 2021 due to ongoing budgetary concerns. This is the last school that the Burrillville School Department would need to complete in order to transition all the schools in Pascoag's territory to LED lighting. The District will continue to look for opportunities to find a path forward for this project, including working with OER to identify additional means of supporting this important work.

Schedule B: Executive Summary

Strategy #2: Enhance incentive levels, especially for measures that go beyond lighting (e.g. weatherization).

Effective incentives are those that encourage energy efficient choices that would not have occurred in the absence of the incentive. There was concern that the incentive levels may be too low in some categories to encourage customers to take advantage of the program. PUD reviewed rebate incentive levels with its energy efficiency consultant and proposed changes to some programs for 2020. PUD is satisfied with the rebate levels that were proposed in 2020 for the Residential ENERGY STAR program, HVAC & Water Heating program and Small Business ENERGY STAR program for 2021. Given the COVID-19 related challenges the DSM program has faced in 2020, there hasn't been enough data collected yet to warrant significant changes to these programs.

Strategy #3: Subsidize energy-efficient workforce development training for facilities managers.

Energy efficiency workforce development trainings, like the Building Operator Certification (BOC), provide essential information for how to effectively maintain buildings, including specific processes to ensure optimal energy use and proper energy management. Such opportunities also connect facilities managers to each other, fostering a professional network for sharing best practices and answering specific questions. We began reaching out to facility managers this fall to gauge interest. Due to businesses shutting down during the second quarter of the year, we need more time to speak with local businesses in order to determine whether workforce development training is something that they'd be interested in pursuing. PUD has been able to identify potential funding through OER to cover the tuition for one participant in the program for 2021.

Schedule B: Executive Summary

Strategy #4: Facilitate commercial financing options either through a third-party bank and/or enable Commercial Property Assessed Clean Energy.

For small businesses, energy efficiency measures can not only reduce energy costs but can help the business absorb shocks from increasing energy prices or use due to colder-than-normal winters and hotter-than-normal summers. However, small businesses often struggle with finding the up-front capital needed for energy efficiency projects, preventing these businesses from benefiting from reduced energy bills. PUD has identified several energy efficiency projects in small, local businesses, but has noted the barrier upfront costs play in preventing businesses from realizing benefits of energy efficiency. One possible finance product that could alleviate the upfront cost hurdle is Commercial Property Assessed Clean Energy (C-PACE), a product offered through a third-party institution that does not place any additional burden on ratepayers. Unfortunately, the Town of Burrillville chose to not move forward with this program at this time.

PUD and OER had preliminary conversations with local banks in 2020 to determine if they were able to offer a product that would help fill this need. After speaking with several banks, we determined that most were not able to offer a product that would fit our needs at this time. One of the main issues was that it would take time and resources to develop a program specific to Pascoag customers and the banks did not feel that they would get enough loan volume to justify the creation of a new loan product. There was also concern that our current budget would not allow us to pay down the interest on enough loans to make it worthwhile. We plan on revisiting financing options in the future if opportunities present themselves.

Strategy #5: Increase the number of residential energy assessments and no-cost direct install measures, with increased outreach to low-income residents.

Residential energy assessments with no-cost direct install measures are critical for households to reduce energy use and lower their energy bills. PUD has historically contracted with Energy New England (ENE) to conduct home energy assessments. Previously, ENE conducted 10-20 assessments annually within PUD territory. The assessments provided limited no-cost direct install measures (i.e. up to three LED bulbs per home) and did not include tests of ventilation or insulation.

Schedule B: Executive Summary

In 2019, we increased the line item for energy audits to \$65,000 with funding from the Regional Greenhouse Gas Initiative (2018-B). This funded energy audits and weatherization incentives such as insulation, air sealing and programmable thermostats. 115 home energy audits were performed during that year with 5 customers taking advantage of weatherization rebates and 9 customers installing programmable thermostats.

In 2020, PUD saw a sharp decline in energy audits due to COVID-19. Customers have been slow to participate in the remote home energy audit program that was offered in place of in-person assessments. Staff from PUD would normally be out at community events speaking to customers one on one to encourage the use of a program that was underperforming but since in-person events have been cancelled, we had to rely on more traditional means of advertising. When advertising failed to increase the number of energy audits or weatherization projects, we thought that increasing the weatherization incentive might help. Customers might be more inclined to take advantage of remote home energy audits if they knew they would not have such big, upfront costs to contend with when weatherizing their home during a time when the job market is unreliable. In July, PUD petitioned the Rhode Island Public Utilities Commission to increase the weatherization and air sealing rebate percentage from 75% to 100% as well as raise the maximum rebate caps from \$800 for insulation and \$500 for air sealing to a combined total of \$3,000 per customer. The rebate level was raised in October and new audits and weatherization projects are slowly starting to trickle in. PUD would like to keep the weatherization rebates at the new level for 2021 in hopes that customers will begin to take advantage of this program again. To date, PUD has completed 24 residential energy audits, 6 weatherization projects and 2 programmable thermostat rebates.

We hope that by maintaining the increase to weatherization rebates that this will encourage more low income customers to participate in the program. We have reached out to Tri-Town Community Action Agency and will be working to find ways we can assist each other in outreach efforts in 2021.

Schedule B: Executive Summary

Strategy #6: Continue to improve residential offerings by developing specific incentives for renters/landlords.

Renters and landlords face a split-incentive when it comes to energy efficiency improvements, and resolving this problem is a current challenge that efficiency programs are tackling across the country. Renters are also often low-income residents who face a significantly higher energy burden than other residents, and are hit particularly hard by price volatility. Furthermore, solving this problem would lead to better health and productivity outcomes, especially for vulnerable populations.

Due to an abnormally large carryover of funds from 2020, we're proposing to use a portion of the carryover to create a focused pilot program to address weatherization needs in rental units.

Transferring Funds

Pascoag Utility District feels that the coming years will require the DSM program to be more adaptable in order to adjust quickly to customers changing needs. The District is proposing modifications to the transferring of funds within and between sectors to help us adjust the budget as needed, if opportunities present themselves. A detailed proposal is provided in DSM Program Details for the Public Utilities Commission's consideration.

Existing Programs Not Covered Above

We have kept programs largely the same this year, with the exception of the Landlord/Renter Weatherization Pilot Program. We have reviewed incentive levels and the way some programs are structured. Changes to the program are based on an extensive review conducted by Optimal Energy and Pascoag Utility, in conjunction with OER over the last year.

Pascoag Utility feels that the proposed plan has been developed in a way that will allow it to be responsive to the changing landscape of the coming year and is looking forward to continuing its work on the Demand Side Management Program. Pascoag's proposed budget is based on a forecast of Sales for 2020 of 54,809,000 kWh (\$109,618). The District anticipates a \$20,931 carryover fund from 2020, \$38,030 from 2020 RGGI carryover funds and \$71,383 from 2021 RGGI funds, which would bring the total 2021 budget to \$239,962.

Schedule C: Program Details 2021

2021 Program Details- Residential, Commercial and Industrial, Administrative and Customer Education and Community Outreach, Marketing & Education

Residential Programs

After making several changes to the program in 2020, we have elected to keep the residential program mainly the same except for the addition of a pilot program focusing on landlord/renter weatherization needs. This summary will detail the programs proposed for 2021 and will review the 2020 programs.

Audits with Follow-Up Incentives-\$94,413:

Residential energy assessments with no-cost direct install measures are critical for households to reduce energy use and lower their energy bills. PUD has historically contracted with Energy New England (ENE) to conduct home energy assessments. Previously, ENE conducted 10-20 assessments annually within PUD territory. In 2019 due to being awarded Regional Greenhouse Gas Initiative (RGGI) funding, 115 residential energy audits were conducted, 9 programmable thermostats were installed and 5 weatherization projects were completed.

In 2020, we were looking forward to building on the success of the 2019 weatherization program but COVID-19 hit in March and much of the state was closed until June. Energy New England began offering remote home energy audits in April. PUD immediately began advertising by placing ads on Facebook, our online bill portal and with a community online news site. Letters were also sent to all electric customers that were past due, to let them know about the energy audit program and the Energy Star rebates offered. After using these methods of outreach for two months with little success, we thought that increasing the weatherization level might incentivize customers to take advantage of the program. In July, PUD petitioned the Rhode Island Public Utilities Commission to increase the weatherization and air sealing rebate percentage from 75% to 100% as well as raise the maximum rebate caps from \$800 for insulation and \$500 for air sealing to a combined total of \$3,000 per customer. The rebate level was raised in October and new audits and weatherization projects are slowly starting to trickle in. To date, PUD has completed 24 residential energy audits, 6 weatherization projects and 2 programmable rebates. We would like to maintain the increased weatherization incentive that

Schedule C: Program Details 2021

was approved by the Rhode Island Public Utilities Commission in September. We feel that we haven't had enough time to market the increased weatherization incentive fully and that it will still be necessary due to the continued uncertainty surrounding next year.

In 2021, we would like to increase this line item to \$94,413 with funds from RGGI (2018-B). This will be our last year receiving RGGI funds so we are hopeful that between the increased weatherization incentive and the option to have an in person or remote energy audit, customer participation will increase. This will fund energy audits and weatherization incentives such as insulation, air sealing and programmable thermostats. The energy audits will also include direct-installs such as LED lightbulbs, smart strips, and low-flow aerators/shower heads for customers that heat with electric, oil and propane.

The program would consist of the following:

120- Audits	\$31,500
Direct Installs (LED Lightbulbs, smart strips, aerators and shower heads)	\$10,000
Insulation and Air Sealing Measures 100% up to \$3000	
Programmable Thermostat Incentives	
Wireless	\$100
Non-wireless	\$25

PUD would be able to devote an estimated \$31,500 to residential energy audits, \$10,000 for direct installs and \$52,913 to rebate insulation, air sealing and programmable thermostats. Only customers who received an energy audit that recommended the products above, would qualify for the rebates. Air sealing and insulation would also need to be installed by a licensed contractor to qualify for rebates.

Additionally, Pascoag Utility is working to establish set pricing between Energy Geeks of North Smithfield and Energy New England based on National Grid's Rhode Island pricing structure (see Schedule I) in order to streamline the process for customers and secure a standardized measurement of pricing to ensure funds are being used effectively. Pascoag Utility sent out post energy audit questionnaires in 2019 and received feedback from a small sample of customers. Several customers stated that lack of time was one of the barriers to moving forward with the prescribed measures. Energy Geeks staff will train Energy New England's energy

Schedule C: Program Details 2021

auditors to more accurately measure for weatherization installations so they can give a precise estimate on behalf of Energy Geeks. The customer can then choose to go with the proposal provided and schedule work immediately with Energy Geeks or find another BPI certified contractor to do the work for them. If the customer decides to move forward with the proposal, Energy New England will complete a Combustion Safety/Blower Door test to take measurements before the air sealing or insulation is installed. This will help streamline the energy audit to weatherization measure install process.

Residential ENERGY STAR Offerings: \$8,000

Pascoag would like to maintain this program at its current incentive levels and offerings. Residential ENERGY STAR Offerings have performed well this year and the funds for this program should be depleted by the end of the year. We may propose phasing out televisions, computers, displays and printers in 2022 due to declining claimable savings.

Pascoag proposes to continue the following incentives for this program:

2021 Proposed Residential ENERGY STAR Program	Proposed Incentive
Refrigerator/Freezer Purchase & Buyback Program	\$75 purchase of new refrigerator or freezer \$50 buyback plus the cost of removal \$19
Clothes Washer and Dryers	\$75.00
Air Purifiers and Air Conditioners	\$40.00
Dehumidifiers	\$30.00
Televisions and Computers	\$50.00
Displays	\$30.00
Printers	\$25.00

PUD would like to increase this line item by \$685 to \$8000 in 2021.

Schedule C: Program Details 2021

HVAC and Water Heater Program-\$7,000

PUD would like to maintain the rebate level proposed in 2020. The new rebate structure seems to be working well and we've noticed a slight increase in customer interest in the program. In 2019, we processed 7 rebates for HVAC and Water Heaters and this year we've processed 9 rebates through September. By basing the rebate level on a per ton basis instead of a flat rate, we've been able to provide more of an incentive to products that offer more savings potential.

2021 Proposed HVAC and Water Heater Program	SEER	EER	HSPF	Proposed Rebate
Central Air Conditioning	≥16	≥13		\$50 per ton
Central Heat Pump	≥15		≥9	\$350 per ton
Ducted or Mixed Ducted Mini-Split Heat Pump	≥15		≥9	\$350 per ton
Ductless Mini-Split Heat Pump	≥15		≥10	\$150 per ton
*Rebate not to exceed \$700 per customer for this program.				

2021 Proposed HVAC and Water Heater Program	Rating	Proposed Rebate
Heat Pump Water Heater	ENERGY STAR ≤ 55 gallon should have a minimum UEF of 2.00	\$300
	ENERGY STAR > 55 gallons should have a minimum UEF of 2.70	\$150

PUD would like to maintain the level of funding at \$7,000 for this program.

Schedule C: Program Details 2021

Change a Light Program: \$1,750

In 2020, Pascoag modified its existing Change A Light program from rebating individual lightbulbs and fixtures to premade lighting kits that could be handed directly to customers. Pascoag made the decision to change the program based on the fact that National Grid is responsible for many upstream rebates at local stores in the area and if Pascoag customers buy from these retailers they are getting the benefit of both National Grid and Pascoag's incentive programs. This in turn doesn't accurately represent energy savings, as the savings are claimed twice.

Lighting kits were delivered to residents at primarily income-eligible, elderly housing complexes in the District's territory. They contained LED lightbulbs, a LED nightlight, energy efficiency information and outreach material from Tri County Community Action agency.

The District has found this to be a good way to provide outreach at a time when most community events have been cancelled. In 2021, PUD would like to use the premade lighting kits to provide outreach to income-eligible customers about our programs and energy efficiency information. PUD will utilize our database of customers who have applied for Financial Hardship or Infant Protection to create a more targeted approach of outreach. In addition, we're hoping that by receiving information on the increased weatherization incentive it will also encourage and allow for more income-eligible customers to take advantage of the program.

PUD would like to slightly increase this line item from \$1000 to \$1750.

Pilot Program: Landlord/Renter Weatherization Program: \$30,000

Due to the abnormally large carryover balance from 2020, Pascoag would like to create a weatherization pilot program focused on rental properties. The program would conduct an energy audit for 1-4 unit dwellings and provide direct install measures such as LED lightbulbs, smart strips, and low-flow aerators/shower heads for customers that heat with electric, oil and propane. A rebate of 100% up to \$5,000 would be provided for qualified air sealing and insulation measures. Pascoag Utility believes that due to the larger building size of rental properties compared to single-family residential homes, the increased cap to \$5,000 would account for the increase in labor and materials needed to air seal and insulate a bigger property. The landlord would need to provide a copy of the lease for Pascoag Utility to keep

Schedule C: Program Details 2021

on file. This program would be limited to year round rentals and exclude summer rentals. Pascoag Utility is working to establish set pricing between Energy Geeks of North Smithfield and Energy New England based on National Grid's Rhode Island pricing structure in order to streamline the process for customers and secure a standardized measurement of pricing to ensure funds are being used effectively. Energy Geeks staff will train Energy New England's energy auditors to more accurately measure for weatherization installations so they can give a precise estimate on behalf of Energy Geeks. The landlord can then choose to go with the proposal provided and schedule immediately with Energy Geeks or find another BPI certified contractor to do the work for them. If the landlord decides to move forward with the proposal, Energy New England will complete a Combustion Safety/Blower Door test to take measurements before the insulation or air sealing is installed. This will help streamline the energy audit to weatherization measure install process.

The District would like to commit \$30,000 to fund this program, with RGGI funds providing half of the support for this program. This would allow for:

4 rental property energy audits with up to 4 units each	\$3,760
Direct Installs (LED Lightbulbs, smart strips, aerators and shower heads)	\$6,240
Insulation and Air Sealing Measures- 100% up to \$5000	\$20,000
Programmable Thermostat Incentives	
Wireless	\$100
Non-wireless	\$25

Committed for 2020 Programs: \$1,500

Pascoag Utility is estimating a carryover of funds from 2020 in the amount of \$20,931. PUD would like to use \$19,431 of these funds in the 2021 budget and use \$1,500 to satisfy 2020 qualified rebates for customers who do not receive a rebate because the funds for a particular program had been depleted in 2020 or for rebates that are turned in after the books are closed for 2020; the cutoff date for 2020 rebates would be March 26, 2021.

Schedule C: Program Details 2021

Commercial and Industrial Programs

Small Business ENERGY STAR Offerings: \$1200

Pascoag would like to maintain the same program as was approved in 2020 for Small Business ENERGY STAR Offerings. PUD would like to mirror the incentives offered under the Residential ENERGY STAR program, for office equipment and non-commercial grade appliance equipment. Pascoag proposes that the commercial appliances listed below would qualify for a rebate of 10% with a cap of \$350.

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 also offer additional energy saving devices such as magnetic door gaskets, auto-door closures, or Dutch doors.

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

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

Schedule C: Program Details 2021

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.

Pascoag has provided incentives for one appliance rebate in 2020. In late 2020, Pascoag was able to compile a listing of all commercial and industrial customer email addresses and will be using the email list going forward to try to target outreach efforts more effectively. Small businesses in town struggle to update their facilities with energy efficient equipment, which has only been made more challenging due to COVID-19, and Pascoag plans to keep exploring opportunities to help businesses manage their energy usage and costs wherever possible.

PUD would like to maintain this level of funding at \$1200 in 2021.

Industrial and Commercial Projects 2020 and 2021:

Burrillville School Department:

The Burrillville School Department had planned to complete a lighting project at the Burrillville High School in 2020 but due to budgetary restrictions, were unable to do so. At this time, they do not have any plans to work on this project in 2021. We will continue to work with the School Department to try to find a path forward with this project in the future but have taken it out of our budget for the time being.

Schedule C: Program Details 2021

Committed Funds-Lighting and Energy Efficiency Projects 2020:

Pascoag Utility has completed one LED lighting project this year and two are in the process of being completed. St. Joseph's Church has completed Phase I of their LED lighting project which includes lighting in their hallways, restroom and kitchen. This project will reduce their kWh by 2,322 and reduce their kW by 1.98. Phase II of their project will include LED lighting within the church. Ashton Court is finishing up a major interior LED lighting project in the interior of all their apartments. The project when completed will reduce their kWh by 52,120 and kW by 19.74.

Potential 2020 Lighting and Energy Efficiency Projects:

Pascoag Utility is also working with GS Inc. to complete a lighting project before the end of the year. The project would cost \$29,706, with Pascoag Utility providing a \$10,025 rebate. The project would reduce kWh by 28,307 and reduce kW by 11.93.

Committed Funds 2021- Lighting and Energy Efficiency Projects: \$5,437

The Pascoag Public Library would like to move forward with a lighting project in 2021. The project would cost \$10,232 with Pascoag providing an incentive of \$3,337. The project would reduce kWh by 3,545 and reduce kW by 2.37.

Ashton Court is diligently working to upgrade their facilities and make their elderly, affordable housing units as energy efficient as possible. In 2019, they completed an exterior LED lighting project. In 2020, they are working to complete a major LED lighting project in the interior of all their units. In 2021, they would like to install mini-splits in the entryways of all their units. Currently there is no way to effectively regulate the heating in these areas so they would like to install mini-splits to be able to adjust and program the heating in the entryways. This project would consist of installing 14 mini-splits within the units for a potential rebate of \$2,100.

Schedule C: Program Details 2021

Potential 2021 Lighting and Energy Efficiency Projects: \$27,562

Pascoag Utility has had preliminary conversations with Crystal Lake Rehabilitation and Care Center on a potential lighting project for the facility in 2021. We have funded this line item at \$27,562 to go towards any prospective projects for 2021.

2021 LED Street Light Incentive: \$10,000

In 2020, the DSM Program rebated Pascoag Utility District \$10,000 for the LED Street Light Project that was completed in 2016 in which PUD purchased and installed 610 LED Street Lights. In 2021, we'd like to maintain this line item at \$10,000. This money will be used to reduce the Account Receivable from the DSM Program from \$63,096 to \$53,096.

Administrative Programs

Administrative Expenses: \$21,000

The funds from this line item will be used to pay for staff time, supplies, 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 like to maintain funding of this line item at \$21,000 in 2021.

Schedule C: Program Details 2021

Energy Efficiency Consultant: \$10,000

PUD recognizes the importance of accurately tracking energy and cost savings data, as well as appropriately accounting for all benefits of demand side management. However, staff constraints have historically prevented more detailed analysis than has been filed through the demand side management plan and year-end report. In 2019, PUD retained Optimal Energy as an energy efficiency consultant to help guide data collection, cost-benefit analysis, and program development. Their assistance has been integral in the success of the program and has continually helped shape the DSM program. We'd like to continue working with Optimal Energy in 2021 to review and improve our DSM program. The District would like to fund this line item at \$10,000 in 2020.

Program Research and Development: \$500

Pascoag Utility would like to fund this line item with \$500 to have a source of funds to help develop future energy efficient programs. These funds would be used to research and review other successful DSM programs that utilities are participating in.

Community Outreach, Marketing & Education

Follow-Up to Successful Programs: \$0

PUD would like to discontinue this line item in hopes of establishing a more fluid process to transfer funds between programs and sectors. Currently, Pascoag Utility District is allowed the flexibility to reallocate up to 10% of the funding associated with a certain program subject to Division authorization; reallocation of any amount in excess of 10% requires the Commission's approval. Recognizing the value and need for our DSM programs to be flexible and responsive to both changing societal conditions and shifts in customer demand, Pascoag Utility District is proposing adjustments to how we can more ably and efficiently adjust our budget, if needed, during a program year. Pascoag Utility District recognizes the Commission's authority in reviewing and approving the incentive levels and budgets for the DSM program each year and intends for these proposed modifications to increase program flexibility and customer outcomes without eroding that authority in any way.

Schedule C: Program Details 2021

Pascoag is proposing that budget transfers during the program year may occur as follows:

Transfers within a Sector:

For transfers of less than 20% of the originating program's budget, Pascoag Utility District can transfer funds from one program to another program in the same sector.

For transfers of 20% or more of the originating program's budget, Pascoag Utility District can transfer funds from one program to another program in the same sector with the Division's prior approval. Upon seeking the Division's approval, the Company shall simultaneously notify OER.

For all transfers in a sector, Pascoag Utility District will reflect changes in any applicable report (mid-year or year-end) following the transfer.

For any transfers involving Regional Greenhouse Gas Inventory (RGGI) funds, Pascoag may do so within the above limits and with prior written approval from the Office of Energy Resources (OER).

Transfers between Sectors:

Pascoag Utility District can transfer funds from one sector to another sector with the Division's prior approval. Upon seeking the Division's approval, the Company shall simultaneously notify OER. If a transfer reduces the originating sector's budget by more than 20% in aggregate over the course of the program year, the transfer will also require PUC approval.

For all transfers between sectors, Pascoag Utility District will reflect changes in any applicable report (mid-year or year-end) following the transfer.

For any transfers involving Regional Greenhouse Gas Inventory (RGGI) funds, Pascoag may do so within the above limits and with prior written approval from the Office of Energy Resources (OER).

Outreach/Education Program: \$7,500

Pascoag Utility struggled with outreach efforts this year due to the pandemic. We were able to attend a Burrillville Aging Stronger event and host the 4th grade Steere Farm Elementary Field trip in February before the state shutdown in March. The District provided outreach materials primarily online and on social media throughout this year. PUD continued to look for ways to

Schedule C: Program Details 2021

adapt our outreach strategies during this tumultuous time period. In June, we began to redesign the Pascoag Utility District website and create a more user friendly online experience for our customers, realizing that this would be the best, contactless way for customers to get information from us. The energy conservation pages were redesigned with more energy saving tips and buying info guides. We incorporated more links to helpful ENERGY STAR website pages and included educational videos. We also revamped the existing rebate form process to an integrated online form that would be faster and more user friendly for the customer. There is still an option on the site for customers to print out their rebate forms and bring in the necessary material if they are more comfortable doing so. In addition, we included our Facebook page posts on our homepage so customers that do not have a Facebook account will also have access to the information we put out on that platform. Finally, although this is somewhat unrelated to energy efficiency but nevertheless important, we created a new page for payment assistance information that includes information not only on our payment plans but also a directory of resources regarding energy, general emergency, housing, food and clothing assistance contacts. We realize that the pandemic has impacted all of our customers in different ways and if customers are having trouble paying their electric bill, they are most likely having trouble in other areas as well. The redesigned website will give customers more access to important resources if they are unable to come into the office or attend an event if they are held.

We are also working to collaborate with Tri-Town Community Action Center to determine ways we can assist each other in outreach efforts this year. Our intention is to leverage the close relationship we have with our customers to ensure that they are taking advantage of any and all services for which they are eligible through each of our agencies.

Additionally we've been using the premade lighting kits to aid us in our outreach efforts to elderly and income-eligible customers. 228 lighting kits were delivered to elderly and income-eligible customers this year. We've also created a 30 minute energy conservation virtual classroom program that we will be offering to K-5 teachers next month, for the remainder of the school year and in 2021. This will allow us to continue to safely provide outreach to classrooms in the District territory.

Schedule C: Program Details 2021

As always, we will continue to distribute information at our office for walk in customers.

PUD would like to maintain the funding level at \$7,500. We'd like to use some of these funds to process bill inserts promoting the various programs, and to run advertisements in the local paper and through social media. We'd also like to use the funds to purchase any fulfillment materials we may need if events are held in 2021.

Jesse Smith Library Partnership - \$3,600

Pascoag Utility partnered 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 2021 calendar with recycling and conservation messages.

In 2021, PUD 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 \$3,600 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: \$9,000

Burrillville is a small, tight-knit community. Pascoag Utility District's presence at community events is imperative to promote our DSM programs, establish trust within the community and communicate with our customers face to face. The importance of these in person events to the engagement in our DSM program was made very clear in 2020 when the pandemic prevented us from engaging with our customers directly. These events give us an opportunity to interact with our customers outside of the office and answer questions they may have, that they didn't have time to call us about. The community events we attend allow us to promote our expanded home energy audit program and weatherization incentives, as well as our other offerings.

Schedule C: Program Details 2021

Unfortunately, due to the pandemic, we were unable to provide outreach at community events this year. The Burrillville Family Fair, Green Festival and Burrillville Aging Stronger events were cancelled for 2020. PUD was able to attend one Burrillville Aging Stronger event in February and provide outreach materials. PUD also hosted the entire 4th grade from Steere Farm Elementary School at the District office for a field trip on February 14th. The children learned about public power, energy efficiency and the operation of an electrical company. They played energy efficiency games and worked on energy efficiency posters for the annual calendar contest. They were also given a tour of the facilities and had lunch at our office. The staff and the children had a lot of fun and it's something PUD hopes to continue in 2021 either safely onsite or by virtual classroom.

Pascoag Utility would like to continue the line item for Community Events even though next year remains uncertain. We are working with other organizations within the community to figure out ways to still provide offerings safely, whether that is in person or virtually.

Pascoag Utility would like to maintain this line item at \$9,000 in 2021.

Energy Efficiency Management Continuing Education funds: \$1,500

In 2020, the DSM Coordinator was not able to travel to conferences due to most events being held virtually. The DSM Coordinator was able to participate in many free virtual workshops and trainings through American Public Power, Association of Energy Professionals and University of Rhode Island.

Pascoag Utility would like to decrease funding in this line item from \$2,500 to \$1500 in 2021 due to most trainings being held virtually for the foreseeable future.

Schedule D-1: 2020 Expenses & Balances

Pascoag Utility District
Demand Side Management Programs - 2020 Approved Budget

	<u>Estimated</u>	<u>Actual</u>	<u>Difference</u>
Estimated/Actual carry over from 2019	\$ 5,867	\$ 6,720.24	\$ 853
Estimated sales for 2020	\$ 110,262	\$ 110,262.00	\$ -
RGGI Funds	\$ 64,700	\$ 63,617.00	\$ (1,083)
RGGI Fund Carryover 2019	\$ 19,000	\$ 20,083.00	\$ 1,083
Net 2020 budget	\$ 199,829	\$ 200,682.24	\$ 853

	<u>2020 Approved Budget</u>	<u>Expenses through 10/30/20</u>	<u>Balance</u>
<u>Residential Program</u>			
DR2001 Home Energy Audits with Weatherization Incentives	\$ 85,000	\$ 14,997	\$ 50,003
DR2002 Residential ENERGY STAR Offerings	\$ 7,315	\$ 5,641	\$ 1,674
DR2003 HVAC & Water Heating Program	\$ 7,000	\$ 2,275	\$ 4,725
DR2004 Change a Light Program	\$ 1,000	\$ 1,000	\$ -
DR2005 Committed for 2019 Programs	\$ 2,353	\$ 2,342	\$ 11
Net Residential	\$ 82,668	\$ 26,255	\$ 56,413
<u>Industrial/Commercial</u>			
DI2001 Small Business ENERGY STAR Offerings	\$ 1,200	\$ 144	\$ 1,056
DI2002 Burnitville School Department	\$ 18,700	\$ -	\$ 18,700
DI2003 Committed Funds- Lighting & EE Projects	\$ 22,764	\$ 2,848	\$ 19,916
DI2004 Potential 2020 Lighting & EE Projects	\$ 10,250	\$ -	\$ 10,250
DI2005 LED Street Light Incentive	\$ 10,000	\$ 10,000	\$ -
Net Industrial/Commercial	\$ 62,914	\$ 12,992.00	\$ 49,922
<u>Administrative</u>			
DA2001 Administrative	\$ 21,000	\$ 14,367	\$ 6,633
DA2002 Energy Consultant	\$ 10,000	\$ 4,388	\$ 5,613
DA2003 Program Research and Development	\$ 500	\$ -	\$ 500
Net Administrative	\$ 31,500	\$ 18,755	\$ 12,746
<u>Community Outreach, Marketing & Education</u>			
DC2001 Funds for Follow-up to Successful Programs	\$ 1,000	\$ 832	\$ 168
DC2002 Outreach/Education	\$ 7,500	\$ 7,276	\$ 224
DC2003 Jesse Smith Library Partnership	\$ 3,800	\$ 2,450	\$ 1,350
DC2004 Community Events	\$ 9,000	\$ 235	\$ 8,765
DC2005 Energy Efficiency Management continuing educatic	\$ 2,500	\$ 568	\$ 1,932
Net Community Outreach, Marketing & Educatio	\$ 23,600	\$ 11,360.90	\$ 12,239
Estimated DSM 2020 Budget/ Expenses/ Balance:	\$ 200,682.24	\$ 69,362.40	\$ 131,320

Schedule D-2: 2020 Projected Expenses & Balances

**Pascoag Utility District
Demand Side Management Programs - 2020 Projected Expenses and Balances**

Actual carry over from 2019	\$ 6,720.24
Estimated sales for 2020	\$ 110,262
RGGI Funds	\$ 63,617
RGGI Fund Carryover 2019	\$ 20,083
Net 2020 budget	\$ 200,682.24

	2020 Approved Budget	Projected Expenses	Projected Balance	Notes
<u>Residential Program</u>				
DR2001 Home Energy Audits with Weatherization Incentives	\$ 65,000	\$ 45,670	\$ 19,330	*We currently have 9 customers interested in completing weatherization projects by the end of the year.
DR2002 Residential ENERGY STAR Offerings	\$ 7,315	\$ 7,315	\$ -	
DR2003 HVAC & Water Heating Program	\$ 7,000	\$ 3,275	\$ 3,725	
DR2004 Change a Light Program	\$ 1,000	\$ 1,000	\$ -	
DR2005 Committed for 2019 Programs	\$ 2,353	\$ 2,342	\$ 11	
Net Residential	\$ 82,668	\$ 59,602	\$ 23,067	
<u>Industrial/Commercial</u>				
DI2001 Small Business ENERGY STAR Offerings	\$ 1,200	\$ 300	\$ 900	
DI2002 Burrillville School Department (RGGI Funded)	\$ 18,700	\$ -	\$ 18,700	They were not able to move forward due to budget issues. RGGI funded.
DI2003 Committed Funds- Lighting & EE Projects	\$ 22,764	\$ 21,066	\$ 1,698	St. Joseph's phase II project and Ashton Court will be rebated by the end of the year.
DI2004 Potential 2020 Lighting & EE Projects	\$ 10,250	\$ 10,025	\$ 225	GS Incorporated lighting project
DI2005 LED Street Light Incentive	\$ 10,000	\$ 10,000	\$ -	
Net Industrial/Commercial	\$ 62,914	\$ 41,391.00	\$ 21,523	
<u>Administrative</u>				
DA2001 Administrative	\$ 21,000	\$ 19,367	\$ 1,633	Current administrative labor was processed through September. This will account for Oct-Dec.
DA2002 Energy Consultant	\$ 10,000	\$ 10,000	\$ -	Final invoice has not been paid yet.
DA2003 Program Research and Development	\$ 500	\$ -	\$ 500	
Net Administrative	\$ 31,500	\$ 29,367	\$ 2,133	
<u>Community Outreach, Marketing & Education</u>				
DC2001 Funds for Follow-up to Successful Programs	\$ 1,000	\$ 832	\$ 168	
DC2002 Outreach/Education	\$ 7,500	\$ 7,276	\$ 224	
DC2003 Jesse Smith Library Partnership	\$ 3,600	\$ 2,450	\$ 1,150	
DC2004 Community Events	\$ 9,000	\$ 235	\$ 8,765	
DC2005 Energy Efficiency Management continuing education	\$ 2,500	\$ 568	\$ 1,932	
Net Community Outreach, Marketing & Education	\$ 23,600	\$ 11,360.90	\$ 12,239	
Estimated DSM 2020 Budget/ Expenses/ Balance	\$ 200,682.24	\$ 141,720.50	\$ 58,962	

Schedule E: Demand Side Management Tariff

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 F: Highlights of Pascoag's 2020 Program



Steere Farm Elementary Field Trip



Jesse Smith Library Earth Day Calendar Contest



Burrillville Aging Stronger Event



Lighting Outreach Kits



Virtual Classroom Offering

Schedule F: Highlights of Pascoag's 2020 Program



Did you know there are more than 3 billion light sockets in homes across the U.S. with old inefficient bulbs, wasting billions of dollars in energy costs and contributing to greenhouse gas emissions? If every American home replaced just one inefficient light bulb with one that has earned the ENERGY STAR, we would save more than \$370 million in energy costs and prevent nearly 7 billion pounds of greenhouse gas emissions per year, equivalent to the emissions from approximately 670,000 cars.

- [Check a Light Guide](#)
- [Ask The Expert](#)

- [Renovate Your Home with ENERGY STAR LED Lighting](#)
- [Downloadable ENERGY STAR LED Lighting Information](#)
- [How to Find the Perfect Lightbulb](#)
- [Lighting made Easy Information](#)



Air Source Heat Pumps



- ENERGY STAR certified heat pumps have higher ratings for seasonal energy efficiency ratio (SEER), energy efficiency ratio (EER), and heating seasonal performance factor (HSPF) and use about 55% percent less energy than conventional new models.
- [Air Source Heat Pumps Fact Sheet](#)
- [What else should I consider when buying an air source heat pump?](#)

Central AC



- ENERGY STAR certified central air conditioners have higher seasonal energy efficiency ratio (SEER) and energy efficiency ratio (EER) ratings and use 8 percent less energy than conventional new models.
- [Cooling Fact Sheet](#)
- [What else should I consider when buying a central air conditioner unit?](#)



Refrigerator



- ENERGY STAR certified refrigerators are about 9 percent more energy efficient than models that meet the federal minimum energy efficiency standard.
- An estimated 190 million refrigerators and refrigerator-freezers are currently in use in the United States. More than 66 million refrigerators are over 10 years old, costing consumers \$5.3 billion a year in energy costs. By properly recycling your old refrigerator and replacing it with a new ENERGY STAR certified refrigerator, you can save more than \$200 over the 12-year lifetime of the product.
- ENERGY STAR certified refrigerators use less energy and help us reduce our impact on the environment. If all refrigerators sold in the United States were ENERGY STAR certified, the energy cost savings would grow to nearly \$700 million each year and 9 billion pounds of annual greenhouse gas emissions would be prevented, equivalent to the emissions from more than 870,000 vehicles.
- Use the ENERGY STAR Savings Calculator to find out exactly how much money you'll save by replacing your existing refrigerator or removing a second refrigerator.
- [What should I consider when buying a refrigerator?](#)



You can fill out an online form for your Residential, Commercial, or Water rebates below. If you do not wish to submit an online rebate form, please download the pdf version, fill it out, and submit by mail or drop it off at our office.

Residential Rebates

ONLINE FORMS

- [Residential Energy Audit-Weatherization Incentives](#)
- [Residential Energy Star Offerings](#)
- [HVAC & Water Heater Rebates](#)

DOWNLOADABLE PDF FORMS

- [Residential Energy Audit-Weatherization Incentives](#)
- [Residential Energy Star Offerings](#)
- [HVAC & Water Heater Rebates](#)

Redesigned Pascoag Utility Website-Conservation Pages

Schedule G: Customer Information

 Pascoag Utility District
April 2

Let's **keep** our energy auditors working in a safe way! ENE is now offering a remote energy audit option for PUD customers. We think it's a **great** way to **keep people working** and **provide** our customers with the **information** they need to **lower** their energy usage. Please pass this on to your neighbor. We'd love to see our **customers** take advantage of this new option!



Let's Make Good Use of This Time at Home.

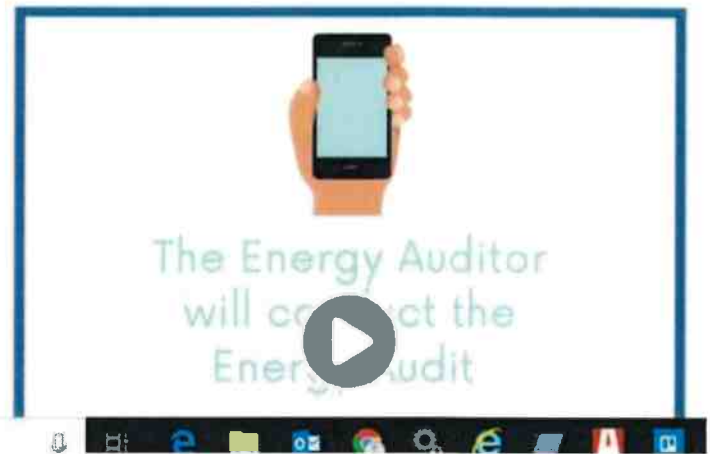
Being at home so much may increase your utility bills. Let us help you make an energy savings plan. By using the video feature on your iPhone or Android phone we can capture information about your home that we need to create a comprehensive Home Energy Assessment Report. We will have a follow up call with you to review your report and make a short and long term savings plan.

 **ENE**
CONSERVE


SIGN UP HERE for a FREE Remote Home Energy Assessment, call 888-772-4242, email solutions@ene.org, or visit us at www.ene.org/energy-assessment.

 Pascoag Utility District
April 21

Pascoag Utility District offers free "remote" Home Energy Audits! Please call 1-888-772-4242 to schedule yours today!



The Energy Auditor will contact the Energy Audit



 **PASCOAG**
UTILITY DISTRICT



Let's Make Good Use of This Time at Home.

Being at home so much may increase your utility bills. Let us help you make an energy savings plan. By using the video feature on your iPhone or Android phone we can capture information about your home that we need to create a comprehensive Home Energy Assessment Report. We will have a follow up call with you to review your report and make a short and long term savings plan.

 **ENE**
CONSERVE

SIGN UP HERE for a FREE Remote Home Energy Assessment, call 888-772-4242, email solutions@ene.org, or visit us at www.ene.org/energy-assessment.

 Pascoag Utility District
May 5

We offer credits on your electric bill when you purchase an Energy Star product! Please visit the link below for qualifying products; <https://www.pud-ri.org/conservation/download-rebate-forms>



Energy

Money Isn't All You're Saving

Pascoag Utility District

 Send Message

Pascoag Utility District Energy Audit & Energy Efficiency
Facebook Posts

Schedule G: Customer Information

Free "remote" home energy audits for Pascoag Electric customers!



PASCOAG
UTILITY DISTRICT

Please take advantage of this new offering by Energy New England!

Call: 1 888-772-4242

Let's Make Good Use of This Time at Home.

Being at home so much may increase your utility bills. Let us help you make an energy savings plan. By using the video feature on your iPhone or Android phone we can capture information about your home that we need to create a comprehensive Home Energy Assessment Report. We will have a follow up call with you to review your report and make a short and long term savings plan.

ENE
Energy New England

SIGN UP HERE for a FREE Remote Home Energy Assessment, call 888-772-4242, email ed@enewengland.org, or visit us at www.ene.org/energy-assessment.

Ad on our Bill Pay Site

NRI Now News Advertisement

Find us on Facebook



Pascoag...
1.9K likes

Like Page



Pascoag Utility District

June 18 · 🌐

Pass this along to a local business owner 🙏 We also offer free business energy audits! **Information** on Small Business ENERGY STAR Offerings can be found here: <http://www.pud-ni.org/.../Small-Business-Energy-Star-Offerin...>

Are you a PUD business customer?

We have a Small Business ENERGY STAR Rebate Program and offer additional Rebates on Energy Efficiency Projects!

ENE is now offering free "remote" Home Energy Audits by video chat on Apple or Android devices!



Call 1-888-772-4242 today to schedule your appointment!
Save money from the comfort of your own home!



Schedule G: 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 Pascoag Utility District 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 Energy Star rated:

- **Commercial Appliances-10%** of the cost up to a maximum of \$350
 - Clothes washers
 - Vending Machines
 - Water Coolers
 - Kitchen Packages
 - Dishwashers
 - Fryers
 - Griddles
 - Hot Food Holding Cabinets
 - Ice Machines
 - Refrigerators/Freezers
 - Steam Cookers
- **Residential Products for your business-rebates listed below**
 - Clothes Washers & Dryers-\$75
 - Air Purifiers-\$40
 - Room Air Conditioners-\$40
 - Dehumidifiers-\$30
 - Televisions-\$50
 - Computers-\$50
 - Monitor/Displays-\$30
 - Printers-\$25

We also provide:

- **Free business energy audits!** Call 401-567-1262 to schedule yours today!
- **Incentives for qualified** lighting and energy efficiency projects.

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

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

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

Billing Insert for Commercial and Industrial Customers

Schedule G: Customer Information



New for 2020!

Free Home Energy Audits for Pascoag Utility Customers- Now Includes Insulation, Air Sealing & Programmable Thermostat Incentives!

Pascoag Utility District is offering free home energy audits, conducted by Energy New England. The energy audit will include a full home assessment, including all appliance, mechanical systems and building envelope. In addition, the auditor will have free LED lightbulbs, smart strips, grounded power switches, low-flow shower heads and aerators on hand, to install if needed. If the home energy auditor recommends insulation, air sealing or programmable thermostats; PUD has incentives for each that customers can take advantage of.

- Insulation Incentive: 75% up to \$800
- Air Sealing Incentive: 75% up to \$500
- Programmable Thermostat Incentive: Wireless \$100 Non-wireless \$25

Appointments are filling up fast, so make yours today! Please call 1-888-772-4242 for more details and to schedule and audit. This offer is for a limited time only and is subject to the availability of funding.

Energy Star Rebates

We also offer rebates on the following Energy Star rated products:

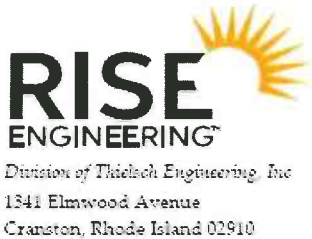
- Clothes Washer and Dryer-\$75
- Air Purifier-\$40
- Air Conditioner-\$40
- Dehumidifier-\$30
- Television-\$50
- Computer-\$50
- Monitor/Display-\$30
- Printer-\$25
- Central AC, Mini-split Heat Pump & Heat Pump Water Heaters-price/ton
- Refrigerator/Freezer Buyback-\$50

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>

Schedule H: Lighting Project Information for 2021

Efficiency Energized.



Pascoag Public Library

Financial Summary

Total Project Cost	\$	10,232
Estimated Electric Incentive	\$	(3,337)
Customer Net Cost	\$	6,895
Estimated Energy Cost Savings Annually	\$	461
Estimated Maintenance Savings	\$	351
Return on Investment (ROI)		12%
Simple Payback in Years		8.5

Energy Savings

kW Reduction	kWh Reduction
2.37	3,545

Pollution Savings

CO2 Reduction (lbs)	NOx Reduction (lbs)	SO2 Reduction (lbs)
3,403	0.9	0.1

Ashton Court Interior Lighting Project

Schedule I: Supporting Documentation

Contents:

- Strategies to Enhance Energy Efficiency in Pascoag Utility District
- 2018-A Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds
- 2018-B Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds
- National Grid EnergyWise Price List



Strategies to Enhance Energy Efficiency in Pascoag Utility District

Rhode Island Office of Energy Resources & Pascoag Utility District

2018.5.1

Existing Energy Efficiency Successes in Pascoag

Pascoag Utility District (PUD) has a record of investing in energy efficiency programs to help their customers save energy and lower utility bills. Despite limited administrative resources dedicated to energy efficiency program management, an impressive 300 residential customers and one-dozen non-residential customers participate in incentive and rebate programs annually.

Currently, PUD customers pay a Systems Benefit Charge (SBC; also called an Energy Efficiency Charge) of 2.3 mills. This charge allows for an energy efficiency program budget of roughly \$130,000 and results in average monthly (annual) ratepayer costs of \$1.15 (\$13.80).¹ For investments across all customer types, annual energy savings in the District have ranged between 50,000 and 190,000 kWh between 2015 and 2017.

Framework for Program Development

The Rhode Island Office of Energy Resources (OER) is Rhode Island's lead state agency on energy policy and programs. The mission of OER is to lead Rhode Island to a secure, cost-effective, and sustainable energy future. To do so, OER works closely with stakeholders, ratepayers, and utilities to leverage, coordinate, and align clean energy efforts. OER's familiarity with energy efficiency programs and initiatives within the state and across the region provides a strong foundation for technical assistance and program development support.

The purpose of this document is to identify strategies for enhancing and expanding access to PUD's energy efficiency programs. OER has a history of partnering with Rhode Island's local utilities on clean energy projects. For example, OER developed and implemented a pilot energy efficiency program in the Town of New Shoreham in 2015-2017.² OER has also recently partnered with PUD to support

¹ Based on monthly electricity consumption of 500 kWh.

² Full report is available here: <http://www.energy.ri.gov/reports-publications/>

investments in high-efficiency LED streetlighting.³ OER is interested in establishing a multi-year partnership with PUD to strengthen energy efficiency programs and institutional capacity within the District and help the local utility to foster substantial energy savings and other system benefits for its customers. To support this effort, along with providing staff and technical support, OER recently allocated \$100,000 in state Regional Greenhouse Gas Initiative (RGGI) proceeds to spur cost-effective efficiency investments in 2018-2019.

The following strategies were identified collaboratively through discussions with the PUD management team. Strategy elements are prioritized based on need, available funding, ease and timing of implementation, and impact to the community. Most strategies rely on a pilot program to understand challenges unique to PUD and thoughtfully develop a full-scale program, if appropriate. OER proposes to leverage state Regional Greenhouse Gas Initiative (RGGI) funds to support pilot implementation.

In developing these strategies, PUD and OER follow three guiding principles to enhance or expand existing energy efficiency programs and ensure long-term sustainability. First, we recognize the substantial benefits that cost-effective energy efficiency can provide to ratepayers, our economy and environment, and the utility. Energy efficiency not only lowers utility bills for participating customers, but also reduces greenhouse gas emissions, supports job creation and other economic development benefits, and is a powerful tool for long-term distribution infrastructure planning.

Second, we consider the historical context of energy efficiency program funding by PUD customers and PUD's commitment to keeping energy costs as low as possible for all customers. Budget requirements of any full-scale program enhancement or expansion must be financially sustainable. If long-term funding were to come through SBC collections, changes should be relatively small and gradual to avoid perceived volatility or customer bill shock.

Third, we recognize PUD management's limited bandwidth. PUD operates efficiently on a small staff, which minimizes administrative cost burdens on local consumers. PUD and OER are careful to propose strategies that do not substantially increase the workload for PUD staff. For each proposed strategy, we outline how to scale the initiative into a full program with sustainable implementation and how to build out institutional capacity or relationships with third-party vendors, as needed.

We present both administrative **recommendations** and programmatic strategies. We organize programmatic strategies into three phases, based on timing and scale.

Phase 1 Programmatic Strategies are the low-hanging fruit that can make a sizeable impact with relatively little upfront research or funding. Phase 1 Programmatic Strategies can begin in 2018 as pilots or research, with full-scale implementation in 2019.

Phase 2 Programmatic Strategies require more substantial program development and, in most cases, would require additional sustainable funding to cover the costs of full-scale implementation. We anticipate Phase 2 Programmatic Strategies could grow to full-scale implementation in 2020.

Phase 3 Ideas cover more innovative energy efficiency program development ideas and rely on external dependencies for full-scale implementation. We anticipate these ideas could come to fruition in 2021-2022.

³ See allocations of state Regional Greenhouse Gas Initiative (RGGI) proceeds outlined in the 2015 RGGI Allocation Plan: <http://www.energy.ri.gov/documents/rggi/2015%20Plan%20Items/2015%20RGGI%20Allocation%20Plan.pdf>

All figures in this document are estimates for illustrative purposes only, and are subject to change pending further research and analysis.

Administrative Recommendations

Administrative Recommendation #1: Align energy efficiency funding more closely with sector SBC contributions

Timeframe and Funding Considerations: Alignment could begin in 2019. No additional funding required.

Explanation: We recommend aligning residential and non-residential program budgets more closely with SBC collections to ensure equity among these segments. Retail sales in 2018 for residential and non-residential sectors are forecasted to be 34,180 MWh and 22,786 MWh, respectively. Residential sales account for 60% of total sales while non-residential sales make up the remaining 40%. All customers incur a uniform SBC of 2.3 mills per kWh. Of the \$130,000 in 2018 program funding, residential programs receive roughly one-third (32.3%) the total budget while non-residential programs receive two-thirds (67.7%). Relative to sales and resulting SBC collections, residential customers are underserved while non-residential customers are proportionally overserved.

Administrative Recommendation #2: Account for and report on full costs and benefits as defined in the Rhode Island Cost-Effectiveness Test

Timeframe and Funding Considerations: Suggest incorporating benefit-cost analysis into 2019 filing. Consulting experts can assist, but it may require an increase in administrative budget costs.

Explanation: PUD currently tracks program costs and energy savings. While a solid foundation for program development and evaluation, there are other costs and benefits that should be included in the decision-making process. These costs and benefits are outlined through the Rhode Island Test, and include benefits and costs to the utility system, customers, and society (e.g. environmental benefits of reduced greenhouse gas emissions and economic development impacts).⁴

Understanding the full costs and benefits of programmatic decisions can help PUD optimize its portfolio of energy efficiency offerings and ensure PUD's energy efficiency programs are cost-effective. We also recommend developing a method to determine optimal incentive levels using benefit-cost data and market research as appropriate.

We recognize that tracking these costs and benefits and reporting on cost-effectiveness is administratively burdensome. Therefore, we recommend hiring a consulting firm that has prior expertise in cost-effectiveness testing and best practices for energy efficiency portfolio optimization and program development. Through its close work with the Energy Efficiency and Resource Management Council (EERMC) and its consultant team, OER is well-positioned to advise on best practices and consultant needs. OER can provide technical expertise with drafting a Request for Proposals, including a scope of work, and reviewing consultant proposals with PUD staff.

⁴ For more information, see Rhode Island Public Utilities Commission Docket 4600.

Strategy #1: Decrease energy burden and address energy-related school construction priorities Burrillville Public Schools located within the Pascoag District

Timeframe and Funding Considerations: Funding from 2018 RGGI Allocation Plan A (Q2/Q3 2018) could assist school projects beginning in summer 2018.

Motivation: Rhode Island Department of Education School Building Authority identified serious school construction priorities across Rhode Island. These priorities were echoed by the Schools Task Force in their recommendations to the Governor in December 2017. Reducing energy use and costs through efficiency improvements in schools is one element of school construction priorities and would allow schools to reallocate cost savings to other projects. Comprehensive energy efficiency has additional benefits for health and education outcomes.

Burrillville Schools have received energy assessments within the past several years and have a clear idea of the energy efficiency measures needed. The schools have recently started to work with PUD on upgrading lighting in all school buildings within PUD service territory. Upgrading lighting is a substantial first step to reducing school energy costs, the savings from which can help pay for more additional energy efficiency projects, other construction priorities, or other school needs.

The total cost of previously-identified lighting projects for Burrillville schools in PUD territory is nearly \$400,000, not including costs of additional comprehensive energy efficiency improvements. PUD is able to provide \$130,000 in incentives over a multiyear period to reduce the net cost to Burrillville schools to roughly \$270,000 for efficient lighting upgrades. If the 2018 state budget legislation allows Housing Aid to be combined with financing through the Efficient Buildings Fund, the schools will be in a good position to finance the costs of their lighting projects.

However, we want to encourage the schools to undertake additional, more comprehensive energy efficiency measures, such as the measures identified in their Efficient Buildings Fund (EBF) application in 2016 for Burrillville High School and Steere Farm Elementary School. Doing so will have a more significant long-term impact on reducing school energy use, cost, and greenhouse gas emissions, among other benefits like improved comfort, indoor air quality, etc. Therefore, a further offsetting costs with additional support may be warranted.

Action: OER has allocated \$100,000 of RGGI funding to enhance energy efficiency opportunities in the PUD community.⁵ Some portion of this funding allocation could help further offset the cost of lighting upgrades and encourage the schools to consider additional comprehensive energy efficiency measures.

Impact: The lighting upgrades are estimated to save over 400 MWh in annual electricity use⁶ and over \$50,000 in annual utility bill costs. Over the 20-year life of the high-efficiency lighting upgrades, Burrillville schools will see a savings of over \$1,000,000.

⁵ Proposed 2018-A Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds, 5.4.2.f: <http://www.energy.ri.gov/documents/rggi/2018%20Plan%20Items/2018-A%20Proposed%20RGGI%20Allocation%20Plan%202-21-18.pdf>

⁶ 400 MWh savings represent a roughly 17% reduction in aggregate annual energy use for Callahan School, Levy School, Steere Farm School, and the High School and Rink.

From Burrillville School's EBF application in January 2016, there were twenty energy efficiency measures identified for the High School and Steere Farm Elementary School (including the lighting upgrades for these schools). The total cost of these measures was just over \$2.3 million, resulting in \$215,000 in annual energy cost savings. This suite of energy efficiency measures was cost-effective, with an estimated positive annual cash flow of \$2,500 over the term of the EBF loan.

Sustainable Implementation: Ongoing initiatives specific to schools should be considered, such as subsidizing the cost of energy efficiency training and energy management resources for facilities managers (see Strategy #3).

Strategy #2: Enhance incentive levels, especially for measures that go beyond lighting (e.g. weatherization)

Timeframe and Funding Considerations: Begin research in 2018 and pilot program expansion in 2019, leveraging RGGI funding. If successful, implement full-scale program in 2020.

Motivation: PUD budgeted \$18,400 (residential) and \$1,200 (business) for rebates on efficient appliances and equipment in 2018. These rebates reach roughly 250-350 residential customers and 10 business customers annually. There is concern these incentive levels may be too low to encourage true market transformation, leading to low participation levels and unspent budgets. Furthermore, there are currently no incentives for weatherization measures, like insulation and air sealing. We propose enhancing rebate levels to both increase participation and encourage comprehensive energy efficiency projects.

There are several possibilities for program enhancement:

1. Increase the level of all existing rebates – Increasing rebate levels would likely increase participation, and would be instrumental in encouraging customers to choose energy efficient alternatives when they would otherwise choose a base alternative.
2. Increase the rebate level for one appliance for a one-year period – Having a specific campaign could focus energy efficient efforts on that product, and the limited-time offer could encourage increased participation
3. Provide an additional rebate for customers who complete a defined set of energy efficiency upgrades – Incentivizing packages of multiple measures would encourage customers to look beyond lighting for energy savings.
4. Develop an incentive structure for weatherization measures.

These options should be considered in tandem with a benefit-cost analysis and development of a method to determine incentives (see Administrative Recommendation #2), and with input from best practices across New England.

Action: OER can work with PUD to develop an enhanced incentive package that is aligned with PUD's grid management priorities, works with PUD's management structure, and can be sustainably maintained for future program years.

Impact: Claimable savings from lighting is attenuating quickly. Therefore, incentivizing non-lighting measures and comprehensive projects will ensure PUD is positively affecting the market in a cost-effective manner.

Sustainable Implementation: After determining incentive levels and structure, implementation should be largely similar to current program implementation. Assuming an aggregate annual budget of \$50,000,

sector-specific budgets can be split to ensure equity and **cost-effectiveness** based on findings from the pilot.

Strategy #3: Subsidize Building Operator Certification for facilities managers

Timeframe and Funding Considerations: Pilot in 2018; Full scale implementation in 2019. Pilot funding coincides with the EERMC workforce development initiative.

Motivation: Building Operator Certification (BOC) training provides essential information for how to effectively maintain buildings, including specific processes to ensure optimal energy use and proper energy management. BOC courses also connect facilities managers to each other, fostering a professional network for sharing best practices and answering specific questions.

We recommend providing a reimbursement for facilities managers that obtain a BOC. To align with reimbursement levels elsewhere in the state, we recommend reimbursing 50% of the cost (\$900) for each facilities manager that manages a facility that either meets some square footage criteria (e.g. manages facility over some square footage) or some energy consumption criteria (e.g. consumes over some MWh per year or has peak demand over some kW).

The EERMC has allocated funding for facilities managers workforce development in 2018. This initiative possibly includes subsidizing BOC training, developing energy efficiency modules specific for Rhode Island that are publicly available, and disseminating free resources to facilities managers. This existing initiative would be a timely way to start developing reimbursement criteria, conducting outreach about BOC, and getting at least one Pascoag facilities manager trained.

Action: OER can work with PUD to garner initial interest among facilities managers to attend a BOC training in 2018. OER can continue to work with PUD to define reimbursement criteria and process, and connect interested facilities managers with training opportunities after full-scale implementation of this strategy.

Impact: 10 facilities managers per year representing 10 community businesses or public entities can be trained each year, leading to an estimated total annual savings of 1,000 MWh.⁷

Sustainable Implementation: 50% reimbursement (\$900) for 10 facilities managers per year requires an annual budget of \$9,000.

Phase 2 Programmatic Strategies

Strategy #4: Facilitate commercial financing options either through a third-party bank and/or enable Commercial Property Assessed Clean Energy

Timeframe and Funding Considerations: Research in 2018 with implementation in 2019. No funding necessary, though creating a loan loss reserve could lower interest rates for borrowers.

⁷ Based on 100 MWh annual savings per BOC-credentialed building operator: <http://www.theboc.info/wp-content/uploads/2017/02/BOC-Energy-Savings-FAQ-2.0-web.pdf>

Motivation: For small businesses, energy efficiency measures can not only reduce energy costs but can help the business absorb shocks from increasing energy prices or use due to colder-than-normal winters and hotter-than-normal summers. However, small businesses often struggle with finding the up-front capital needed for energy efficiency projects, preventing these businesses from benefiting from reduced energy bills. PUD has identified several energy efficiency projects in small, local businesses, but has noted the barrier upfront costs play in preventing businesses from realizing benefits of energy efficiency.

We recommend facilitating financing options for cost-effective energy efficiency investments through partnership with a local, third-party bank. Ideally, energy auditors and contractors could recommend the bank and include the cost of financing directly in their recommendations report. Ideally, too, the length of the loan should be flexibly structured so the overall financing is cash-flow positive. A loan loss reserve is one tool that could lower interest rates for energy efficiency projects.

Commercial Property Assessed Clean Energy (C-PACE) is another financing option that would eliminate the barrier of upfront capital. C-PACE finances cost-effective clean energy projects with repayment through municipal property assessments. The Town of Burrillville would need to pass an ordinance to allow C-PACE financing.

If successful, later work could explore financial products for residential customers. Public entities already have access to the Efficient Buildings Fund for low-interest rate financing.

Action: OER and PUD can work to explore the potential for financial relationships with local third-party banks. OER can additionally work with RIIB and the Town of Burrillville to facilitate acceptance of C-PACE financing, and liaise with PUD as needed.

Impact: Financing availability could assist at least three small businesses annually, based on typical energy efficiency project implementation levels in PUD. Annual energy savings impact could be roughly 100-200 MWh.

Sustainable Implementation: PUD staff do not have the bandwidth to administer and manage a financing program in house. Therefore, the sustainable implementation of this strategy lies in identifying a third-party bank to oversee financing, and/or enacting C-PACE in the Town of Burrillville.

Strategy #5: Increase the number of residential energy assessments and no-cost direct install measures, with increased outreach to low-income residents

Timeframe: Begin pilot planning in 2018 and identify a funding source. If successful, implement a full-scale program in 2020.

Motivation: Residential energy assessments with no-cost direct install measures are critical for households to reduce energy use and lower their energy bills. PUD contracts with Energy New England (ENE) to conduct home energy assessments. ENE conducts 10-20 assessments annually within PUD territory. The assessments provide limited no-cost direct install measures (i.e. up to three LED bulbs per home) and do not include tests of ventilation or insulation.

In contrast, other Rhode Island residents can receive a more comprehensive assessment with a larger number of no-cost direct install measures. These additional benefits lead to participation rates that are an order of magnitude higher.

We recommend scaling up the residential energy assessment program. Ideally, PUD should target 120 home energy audits annually, with an increased number of direct-install measures and a more comprehensive assessment that includes ventilation and insulation.

OER can provide technical assistance with issuing a Request for Proposals, reviewing or revising scopes of work, and including best practices for residential home energy assessments.

Action: OER can provide technical assistance to PUD to build out a more comprehensive home energy assessment program pilot.

Impact: A more robust home energy assessment program would reach nearly 110 more households, and would increase energy and cost savings from direct install measures. In total, we aim for an annual participation rate of 3% (equals 120 audits/4,074 residential customers). Over ten years, nearly one in three PUD homes would have received a home energy assessment.

Sustainable Implementation: PUD budgeted for 12 audits at \$235 each in 2018. The proposed pilot will aim to increase participation ten-fold in addition to increasing the depth of the energy assessment (assume a roughly two-fold increase in unit cost, subject to further research and cost-benefit analysis of the aggregate residential program).

$$120 \text{ audits} * \$500 \text{ per audit} = \$60,000 \text{ annual program budget}$$

OER can provide technical assistance for modifying the contract with Energy New England or for developing an RFP to solicit a new vendor. OER can also provide ongoing technical assistance as needed. The vendor would be responsible for program administration and would be required to provide monthly reports to PUD.

Strategy #6: Continue to improve residential offerings by developing specific incentives for renters/landlords

Timeframe: Develop pilot-scale program in 2019 to test program elements. Suggested allocation of \$25,000 in RGGI funding. If successful, implement full scale program in 2020.

Motivation: Renters and landlords face a split-incentive when it comes to energy efficiency improvements, and resolving this agency problem is a current challenge efficiency programs are tackling across the country. Renters are also often low-income residents, who face a significantly higher energy burden than other residents, and are hit particularly hard by price volatility. Furthermore, energy efficiency often leads to better health and productivity outcomes, especially for vulnerable populations.

Renter/landlord-specific energy efficiency offerings are key to addressing this important need. Examples include programs designed specifically for renters and special outreach to affordable housing developers to encourage energy efficient designs. PUD could also enhance outreach about federal programs like WAP and LIHEAP.

PUD has offered a program specific for low-income residents in the past but without much success in participation. This experience should inform a pilot program in 2019 aimed instead at renters and landlords. If successful, the 2019 pilot should inform development of a full-scale program to be implemented in 2020.

Action: OER can work with PUD to develop an outreach strategy to the renter community about energy efficiency opportunities. OER can support PUD in developing a pilot program and full-scale program based on best practices.

Impact: Approximately 1,700 housing units are not owner-occupied in the Town of Burrillville.⁸ This program should aim to reach five percent of households that rent (85 households) in its first year, scaling up as appropriate.

Sustainable Implementation: Budget to be determined by scope of program and demand.

Phase 3 Ideas

We do not include specific descriptions or actions for Phase 3 Ideas at this point. These ideas can be developed and evolve as we learn from Phase 1 and Phase 2 Programmatic Strategies.

Strategy #7: Automate benchmarking through EnergyStar Portfolio Manager, with appropriate support, training, and resources

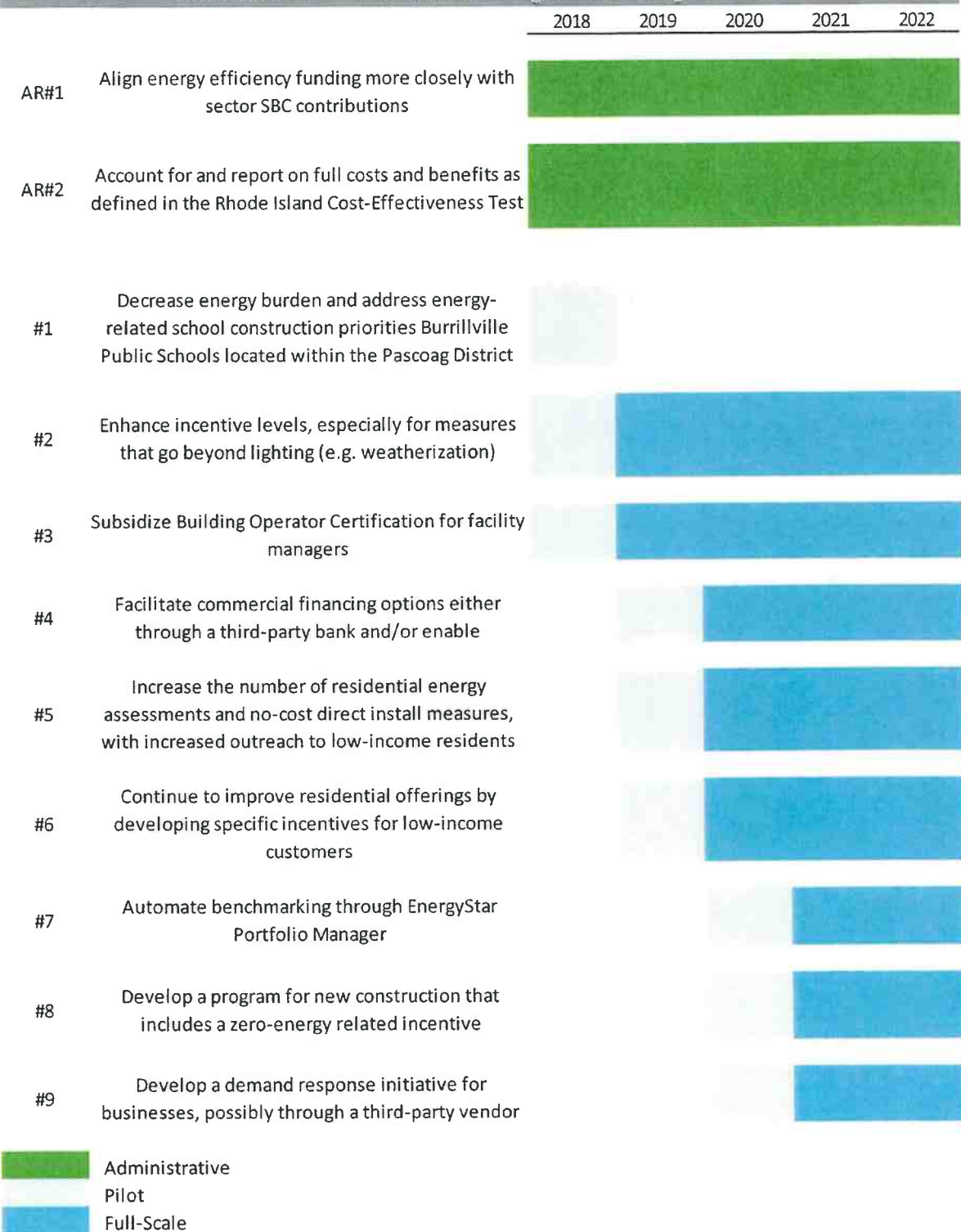
Strategy #8: Develop a program for new construction that includes a zero-energy related incentive

Strategy #9: Develop a demand response initiative for businesses, possibly through a third part vendor

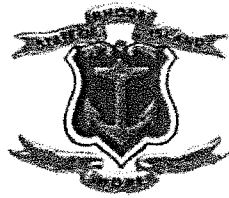
⁸ <https://www.census.gov/quickfacts/fact/table/burrillvilletownprovidencountyrhodeisland/PST045216>

Strategy	Pilot/Research Timeframe	Initial Funding	Initial Funding Source	Year of Full Scale Implementation	Sector	Proposed Annual Budget from SBC	Incremental SBC
<i>Administrative Recommendations</i>							
AR#1	Evenly distribute energy efficiency funding by sector based on SBC contribution	2018	\$ -	N/A	2019	Admin	\$ - \$ -
AR#2	Account for and report on full costs and benefits as defined in the Rhode Island Cost-Effectiveness Test	2018	\$ -	N/A	2019	Admin	\$ 10,000 \$ 0.00018
<i>Phase 1 Programmatic Strategies</i>							
#1	Decrease energy burden and address energy-related school construction priorities Burrillville Public Schools located within the Pascoag District	2018	\$ 100,000	RGGI 2018 A	2018	Non-Res	\$ - \$ -
						Res	\$ 25,000 \$ 0.00044
#2	Enhance incentive levels, especially for measures that go beyond lighting (e.g. weatherization)	2018	\$ 100,000	RGGI 2018 B	2019	Non-Res	\$ 25,000 \$ 0.00044
#3	Subsidize Building Operator Certification for facility managers	2018	\$ -	Implicit in EERMC workforce development initiative	2019	Non-Res	\$ 9,000 \$ 0.00016
<i>Phase 2 Programmatic Strategies</i>							
#4	Facilitate commercial financing options either through a third-party bank and/or enable Commercial Property Assessed Clean Energy	2018	\$ -	N/A	2019	Non-Res	\$ - \$ -
#5	Increase the number of residential energy assessments and no-cost direct install measures, with increased outreach to low-income residents	2019	\$ 120,000	RGGI 2018 B	2020	Res	\$ 60,000 \$ 0.00105
#6	Continue to improve residential offerings by developing specific incentives for low-income customers	2019	\$ 25,000	RGGI 2018 B	2020	Res	\$ 25,000 \$ 0.00044
<i>Phase 3 Programmatic Strategies</i>							
#7	Automate benchmarking through EnergyStar Portfolio Manager	2020	\$ -	?	2021	Both	\$ -
#8	Develop a program for new construction that includes a zero-energy related incentive	2020	\$ -	?	2022	Both	\$ -
#9	Develop a demand response initiative for businesses, possibly through a third party vendor	2020	\$ -	?	2022	Non-Res	\$ -

Administrative Recommendations and Programmatic Strategies Timeline



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ADMINISTRATION
OFFICE OF ENERGY RESOURCES



PROPOSED
2018-A PLAN FOR THE ALLOCATION AND DISTRIBUTION OF REGIONAL
GREENHOUSE GAS INITIATIVE AUCTION PROCEEDS

Auctions Held September 6, 2017 & December 6, 2017

February 2018

1.0 Authority
The 2018-A Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds (Plan) is authorized by Rhode Island General Laws (RIGL) §23-82-1 et seq. and 42-140-9 and the “Rules and Regulations for the Allocation and Distribution of Regional Greenhouse Gas Initiative Proceeds,” effective August 2011.

2.0 Definitions
For the purposes of this Plan, the terms defined in RIGL §23-82-1 et seq. and the “Rules and Regulations for the Allocation and Distribution of Regional Greenhouse Gas Initiative Proceeds,” effective August 2011 shall be given the same meaning as provided in the statute and regulations.

3.0 Auction Proceeds included in this Plan

3.1 RGGI, Inc. conducted auctions on behalf of the State of Rhode Island on September 6, 2017 (Auction #37) and December 6, 2017 (Auction #38).

3.2 These auctions resulted in the following Auction Proceeds for the State of Rhode Island:

Auction #37	\$1,078,639.05
Auction #38	\$942,263.20
Total	\$2,020,902.25

4.0 Adoption of the Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds

4.1 The Rhode Island Regional Greenhouse Gas Initiative Act provides for the use of Auction Proceeds. RIGL §23-82-6 requires that the Auction Proceeds be used for the benefit of energy consumers through investment in the most cost-effective available projects that can

reduce long-term consumer energy demands and costs. The annual auction proceeds proposal shall be designed to augment and coordinate with existing energy efficiency and renewable energy programs, and shall not propose use of auction proceeds for projects already fully funded under other programs.

- 4.2. The Rhode Island Office of Energy Resources (OER) is authorized to allocate the auction proceeds for the following purposes, in a proportion to be determined annually by OER in consultation with the Rhode Island Department of Environmental Management (DEM) and the Rhode Island Energy Efficiency and Resources Management Council (EERMC):
- (1) Promotion of cost-effective energy efficiency and conservation in order to achieve the purposes of section 39-1-27.7;
 - (2) Promotion of cost-effective renewable non-carbon emitting energy technologies in Rhode Island as defined in RIGL §39-26-5 and to achieve the purposes of chapter 39-26 entitled "Renewable Energy Standard";
 - (3) Cost-effective direct rate relief for consumers;
 - (4) Direct rate relief for low-income consumers;
 - (5) Reasonable compensation to RGGI, Inc.; and
 - (6) Reasonable costs of the OER and the Department of Environmental Management (DEM) in administering this program.
- 4.3 OER concludes that this Plan is consistent with the applicable statutes and regulations. Public notice of the proposed Plan was provided on xx 2018. A copy of the Notice is attached hereto. A public comment hearing was held on xx 2018 at the Department of Administration, One Capitol Hill, Providence, Rhode Island. The public was allowed additional time to submit written comments until xx 2018.
- 4.4 OER has responded to all substantive comments received on the Plan and are provided attached document entitled Response to Comments.

4.5 OER and DEM agree that the Plan was adopted in accordance with RIGL §23-82-6; "Rules and Regulations for the Allocation and Distribution of Regional Greenhouse Gas Initiative Proceeds" and Chapter 42-35, the Administrative Procedures Act.

5.0 Allocation of Auction Proceeds

5.1 Compensation to RGGI, Inc.

5.1.1 RIGL §23-82-6(a)(5) authorizes the reasonable compensation of an entity to administer the auction on behalf of the State of Rhode Island. RGGI, Inc. is the entity that conducted the auctions listed in Section 3.0.

5.1.2 RGGI Inc. was not compensated from Auction 37 or Auction 38 proceeds.

5.2 Administrative expenses

5.2.1 RIGL §23-82-6(a)(6) authorizes the reasonable costs of OER and DEM in administering the RGGI program. The total reimbursement to both entities shall not in any year exceed Three Hundred Thousand Dollars (\$300,000.00) or ten percent (10.0%) of the proceeds, whichever is greater.

5.2.2 Ten percent (10.0%) of total auction proceeds from Auctions 37 and 38 total \$202,090.22. Therefore, as specified in RIGL §23-82-6(a)(6), OER and DEM shall each be reimbursed a total of \$101,045.11.

5.3 Interest Accrued on RGGI Proceeds

5.3.1 OER has identified \$76,298.49 of unallocated accrued interest payments on state RGGI auction proceeds as of December 31, 2017.

5.4 Allocation of Net RGGI Proceeds

5.4.1 After accounting for compensation for RGGI Inc., administrative expense reimbursement to OER and DEM, and unallocated interest payments, the net balance available for programmatic allocation is **\$1,895,110.52 (One Million Eight Hundred Ninety-Five Thousand One Hundred and Ten Dollars and Fifty-Two Cents)**.

5.4.2 OER finds that allocating the balance of the Auction Proceeds set forth in Paragraph 5.4.1 herein for the promotion of cost-effective energy efficiency and conservation; and the promotion of cost-effective renewable non-carbon emitting energy technologies in an integrated manner shall be best accomplished by disbursements as follows:

5.4.2.a **\$500,000.00 (Five Hundred Thousand Dollars)** shall be allocated to support residential, commercial, and/or public sector energy efficiency and/or renewable energy financing transactions through the Rhode Island Infrastructure Bank, as established under Rhode Island General Laws Sections 39-26.5 and 46-12.2-4.2.

5.4.2.b **\$110,000.00 (One Hundred and Ten Thousand Dollars)** shall be allocated to support the Rhode Island Department of Environmental Management's (DEM) Energy-Saving Trees Program, which helps homeowners conserve energy and reduce their utility costs. Trees play an important role in cooling streets and homes, filtering air, and reducing stormwater pollution. DEM's program is operated in coordination with the Arbor Day Foundation and the Rhode Island Tree Council.

5.4.2.c **\$250,000.00 (Two Hundred and Fifty Thousand Dollars)** shall be allocated to DEM to support the Rhode Island Agricultural Energy Grant Program, a collaborative project of DEM, OER, and the Rhode Island Resource Conservation & Development Area Council (RI RC&D). This program, which is implemented through RI RC&D's Farm Energy Program, helps local farmers "green" their operations and benefit from the related energy and cost savings achieved through energy efficiency and renewable energy projects. OER will coordinate with DEM on future implementation of this program to support alignment with other existing clean energy initiatives available to Rhode Island's agricultural community. RGGI funds may be leveraged with other sources of capital to help local farmers implement clean energy projects. Such sources include, but are not limited to, the Rhode Island Renewable Energy Fund, USDA's Rural Energy for America Program (REAP), and utility-administered energy efficiency incentives.

5.4.2.d **\$350,000.00 (Three Hundred and Fifty Thousand Dollars)** shall be allocated for use by Rhode Island municipalities to support the installation of LED streetlights and associated control technologies. This program will be administered by OER.

5.4.2.e **\$585,110.52 (Five Hundred Eighty-Five Thousand One Hundred and Ten Dollars and Fifty-Two Cents)** shall be allocated to the Rhode Island Commerce Corporation's Renewable Energy Fund (REF), which is dedicated to increasing the role of renewable energy throughout the state. REF provides grants for renewable energy projects with the potential to make electricity in a cleaner, more sustainable manner, while stimulating job growth in the green technology and energy sectors of Rhode Island's economy.

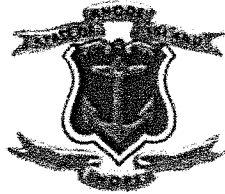
5.4.2.f **\$100,000.00 (One Hundred Thousand Dollars)** shall be allocated to support the accelerated adoption of cost-effective energy efficiency measures by customers located in the Pascoag Utility District (PUD). OER will work in coordination with PUD management

to leverage existing system benefit charge funding, enhance incentive and program offerings, and identify cost-effective investment opportunities in the community.

- 6.0 Reallocation of RGGI funds from the 2012, 2013, 2014 and 2015 Plans for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds.
- 6.1 OER finds that **\$69,802.97 (Sixty-Nine Thousand Eight Hundred and Two Dollars and Ninety-Seven Cents)** of funds allocated pursuant to Section 5.4.2.c of the 2012 Plan (SRP) shall be reallocated to achieve the purposes of Section 5.4.2.e (REF) of the 2018-A Plan.
- 6.2 OER finds that **\$41,427.00 (Forty-One Thousand Four Hundred and Twenty-Seven Dollars)** of funds allocated pursuant to Section 5.3.2.b of the 2013 Plan (Thermal WG) shall be reallocated to achieve the purposes of Section 5.4.2.e (REF) of the 2018-A Plan.
- 6.3 OER finds that **\$1,894.28 (One Thousand Eight Hundred and Ninety-Four Dollars and Twenty-Eight Cents)** of funds allocated pursuant to Section 5.3.2.c of the 2014 Plan (DOT EE) shall be reallocated to achieve the purposes of Section 5.4.2.e (REF) of the 2018-A Plan.
- 6.4 OER finds that **\$101,765.23 (One Hundred One Thousand Seven Hundred and Sixty-Five Dollars and Twenty-Three Cents)** of funds allocated pursuant to Section 5.3.2.f of the 2015 Plan (Solarize) shall be reallocated to achieve the purposes of Section 5.4.2.e (REF) of the 2018-A Plan.
- 7.0 Tracking and Reporting
- 7.1 Consistent with OER's reporting requirement under RIGL §23-82-6(d), all recipients of RGGI funding are required to comply with OER data and reporting requests, including, but

not limited to, those reporting requirements specified in procurement documents and/or any memoranda of understanding.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ADMINISTRATION
OFFICE OF ENERGY RESOURCES



**2018-B PLAN FOR THE ALLOCATION AND DISTRIBUTION OF
REGIONAL GREENHOUSE GAS INITIATIVE AUCTION PROCEEDS**

Auctions Held March 18, 2018 & June 13, 2018

August 2018

1.0 Authority

The 2018-B Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds (Plan) is authorized by Rhode Island General Laws (RIGL) §23-82-1 et seq. and 42-140-9 and the “Rules and Regulations for the Allocation and Distribution of Regional Greenhouse Gas Initiative Proceeds,” effective August 2011.

2.0 Definitions

For the purposes of this Plan, the terms defined in RIGL §23-82-1 et seq. and the “Rules and Regulations for the Allocation and Distribution of Regional Greenhouse Gas Initiative Proceeds,” effective August 2011 shall be given the same meaning as provided in the statute and regulations.

3.0 Auction Proceeds included in this Plan

3.1 RGGI, Inc. conducted auctions on behalf of the State of Rhode Island on March 18, 2018 (Auction #39) and June 13, 2018 (Auction #40).

3.2 These auctions resulted in the following Auction Proceeds for the State of Rhode Island:

Auction #39	\$907,939.98
Auction #40	\$963,039.24
Total	\$1,870,979.22

4.0 Adoption of the Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds

4.1 The Rhode Island Regional Greenhouse Gas Initiative Act provides for the use of Auction Proceeds. RIGL §23-82-6 requires that the Auction Proceeds be used for the

benefit of energy consumers through investment in the most cost-effective available projects that can reduce long-term consumer energy demands and costs. The annual auction proceeds proposal shall be designed to augment and coordinate with existing energy efficiency and renewable energy programs, and shall not propose use of auction proceeds for projects already fully funded under other programs.

- 4.2. The Rhode Island Office of Energy Resources (OER) is authorized to allocate the auction proceeds for the following purposes, in a proportion to be determined annually by OER in consultation with the Rhode Island Department of Environmental Management (DEM) and the Rhode Island Energy Efficiency and Resources Management Council (EERMC):
- (1) Promotion of cost-effective energy efficiency and conservation in order to achieve the purposes of section 39-1-27.7;
 - (2) Promotion of cost-effective renewable non-carbon emitting energy technologies in Rhode Island as defined in RIGL §39-26-5 and to achieve the purposes of chapter 39-26 entitled “Renewable Energy Standard”;
 - (3) Cost-effective direct rate relief for consumers;
 - (4) Direct rate relief for low-income consumers;
 - (5) Reasonable compensation to RGGI, Inc.; and
 - (6) Reasonable costs of the OER and the Department of Environmental Management (DEM) in administering this program.
- 4.3 OER concludes that this Plan is consistent with applicable statutes and regulations. Public notice of the proposed Plan was provided on July 17, 2018. A copy of the Notice is attached hereto. A public comment hearing was held on August 16, 2018 at the Department of Administration, One Capitol Hill, Providence, Rhode Island. The public was allowed additional time to submit written comments until August 26, 2018.

- 4.4 OER has responded to all substantive comments received on the Plan and are provided in the attached document entitled Response to Comments.
- 4.5 OER and DEM agree that the Plan was adopted in accordance with RIGL §23-82-6; “Rules and Regulations for the Allocation and Distribution of Regional Greenhouse Gas Initiative Proceeds” and Chapter 42-35, the Administrative Procedures Act.
- 5.0 Allocation of Auction Proceeds
- 5.1 Compensation to RGGI, Inc.
 - 5.1.1 RIGL §23-82-6(a)(5) authorizes the reasonable compensation of an entity to administer the auction on behalf of the State of Rhode Island. RGGI, Inc. is the entity that conducted the auctions listed in Section 3.0.
 - 5.1.2 RGGI Inc. was compensated \$33,329.33 from Auction 39 proceeds.
- 5.2 Administrative expenses
 - 5.2.1 RIGL §23-82-6(a)(6) authorizes the reasonable costs of OER and DEM in administering the RGGI program. The total reimbursement to both entities shall not in any year exceed \$300,000.00 or 10.0% of the proceeds, whichever is greater.
 - 5.2.2 Ten percent (10.0%) of total auction proceeds from Auctions 39 and 40 total \$187,097.92. Therefore, as specified in RIGL §23-82-6(a)(6), OER and DEM shall each be reimbursed a total of \$93,548.96.

5.3 Allocation of Net RGGI Proceeds

5.3.1 After accounting for compensation for RGGI Inc. and administrative expense reimbursement to OER and DEM, the net balance available for programmatic allocation is **\$1,650,551.97 (One Million Six Hundred Fifty Thousand Five Hundred Fifty-One Dollars and Ninety-Seven Cents)**.

5.3.2 OER finds that allocating the balance of the Auction Proceeds set forth in Paragraph 5.3.1 herein for the promotion of cost-effective energy efficiency and conservation; and the promotion of cost-effective renewable non-carbon emitting energy technologies in an integrated manner shall be best accomplished by disbursements as follows:

5.3.2.a **\$1,388,521.60 (One Million Three Hundred Eighty-Eight Thousand Five Hundred Twenty-One Dollars and Sixty Cents)** shall be allocated to the Rhode Island Commerce Corporation's Renewable Energy Fund (REF), which is dedicated to increasing the role of renewable energy throughout the state. REF provides grants for renewable energy projects with the potential to make electricity in a cleaner, more sustainable manner, while stimulating job growth in the green technology and energy sectors of Rhode Island's economy. A portion of these funds shall be used to establish a pilot incentive program to facilitate solar development on brownfields. All funds allocated through this section shall be administered in coordination with OER.

5.3.2.b **\$200,000.00 (Two Hundred Thousand Dollars)** shall be allocated to support the delivery of cost-effective energy efficiency programs and incentives to electric utility customers in the Pascoag Utility District (PUD). OER will work in coordination with PUD management to leverage existing system benefit charge funding, enhance incentive

and program offerings, and identify cost-effective investment opportunities in the community.

- 5.3.2.c **\$62,030.37 (Sixty-Two Thousand Thirty Dollars and Thirty-Seven Cents)** shall be allocated to support the delivery of cost-effective energy efficiency programs and incentives to electric utility customers of the Block Island Power Company (BIPCo). OER will work in coordination with BIPCo management to leverage existing utility funds and identify cost-effective investment opportunities in the community of New Shoreham.
- 6.0 Reallocation of RGGI funds from the 2013 and 2016-A Plans for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds.
- 6.1 OER finds that **\$100,995.00 (One Hundred Thousand Nine Hundred and Ninety-Five Dollars)** of funds allocated pursuant to Section 5.3.2.f of the 2013 Plan (Grid Mod WG) shall be reallocated to achieve the purposes of Section 5.3.2.a (REF) of the 2018-B Plan.
- 6.2 OER finds that **\$500,000.00 (Five Hundred Thousand Dollars)** of funds allocated pursuant to Section 5.2.2.e of the 2016-A Plan (Microgrid) shall be reallocated to achieve the purposes of Section 5.3.2.a (REF) of the 2018-B Plan.
- 7.0 Tracking and Reporting
- 7.1 Consistent with OER's reporting requirement under RIGL §23-82-6(d), all recipients of RGGI funding are required to comply with OER data and reporting requests, including, but not limited to, those reporting requirements specified in procurement documents and/or any memoranda of understanding.

National Grid RI prices 2019/2020

DESCRIPTION	UNIT	2019
ATTIC FLAT		
ATTIC FLAT - 3" OPEN R-11 CELLULOSE	sqft	\$1.14
ATTIC FLAT - 4" OPEN R-14 CELLULOSE	sqft	\$1.20
ATTIC FLAT - 5" OPEN R-19 CELLULOSE	sqft	\$1.26
ATTIC FLAT - 6" OPEN R-22 CELLULOSE	sqft	\$1.32
ATTIC FLAT - 7" OPEN R-26 CELLULOSE	sqft	\$1.38
ATTIC FLAT - 8" OPEN R-30 CELLULOSE	sqft	\$1.44
ATTIC FLAT - 9" OPEN R-33 CELLULOSE	sqft	\$1.50
ATTIC FLAT - 10" OPEN R-37 CELLULOSE	sqft	\$1.56
ATTIC FLAT - 11" OPEN R-40 CELLULOSE	sqft	\$1.62
ATTIC FLAT - 12" OPEN R-42 CELLULOSE	sqft	\$1.68
ATTIC FLAT - 13" OPEN R-45 CELLULOSE	sqft	\$1.74
ATTIC FLAT - 14" OPEN R-49 CELLULOSE	sqft	\$1.80
ATTIC FLAT - 16" OPEN R-60 CELLULOSE	sqft	\$2.06
ATTIC FLAT - 4" FLOORED R-13 DENSE CELLULOSE	sqft	\$1.69
ATTIC FLAT - 5" FLOORED R-16 DENSE CELLULOSE	sqft	\$1.82
ATTIC FLAT - 6" FLOORED R-19 DENSE CELLULOSE	sqft	\$1.95
ATTIC FLAT - 7" FLOORED R-22 DENSE CELLULOSE	sqft	\$2.08
ATTIC FLAT - 8" FLOORED R-25 DENSE CELLULOSE	sqft	\$2.21
ATTIC FLAT - 9" FLOORED R-28 DENSE CELLULOSE	sqft	\$2.34
ATTIC FLAT - 10" FLOORED R-32 DENSE CELLULOSE	sqft	\$2.47
ATTIC FLAT - 11" FLOORED R-35 DENSE CELLULOSE	sqft	\$2.60
ATTIC FLAT - 12" FLOORED R-38 DENSE CELLULOSE	sqft	\$2.73
ATTIC FLAT - 13" FLOORED R-42 DENSE CELLULOSE	sqft	\$2.86
ATTIC FLAT - 14" FLOORED R-49 DENSE CELLULOSE	sqft	\$2.99
ATTIC FLAT - R-13 UNFACED FIBERGLASS	sqft	\$1.40
ATTIC FLAT - R-13 FACED FIBERGLASS	sqft	\$1.40
ATTIC FLAT - R-19 UNFACED FIBERGLASS	sqft	\$1.60
ATTIC FLAT - R-19 FACED FIBERGLASS	sqft	\$1.60
ATTIC FLAT - R-30 UNFACED FIBERGLASS	sqft	\$1.90
ATTIC FLAT - R-30 FACED FIBERGLASS	sqft	\$1.90
ATTIC FLAT - R-38 UNFACED FIBERGLASS	sqft	\$2.05
ATTIC FLAT - R-38 FACED FIBERGLASS	sqft	\$2.05
ATTIC DAMMING - R-38 FIBERGLASS	sqft	\$2.05
ATTIC - FLIP/SLASH EXISTING INSULATION	sqft	\$0.25
ATTIC - REMOVE EXISTING INSULATION	sqft	\$0.97
ATTIC SLOPE		
SLOPE - 4" DENSE R-13 CELLULOSE	sqft	\$1.78
SLOPE - 5" DENSE R-16 CELLULOSE	sqft	\$1.82
SLOPE - 6" DENSE R-19 CELLULOSE	sqft	\$1.95
SLOPE - 7" DENSE R-22 CELLULOSE	sqft	\$2.08
SLOPE - 8" DENSE R-26 CELLULOSE	sqft	\$2.21
SLOPE - 9" DENSE R-29 CELLULOSE	sqft	\$2.34
SLOPE - 10" DENSE R-32 CELLULOSE	sqft	\$2.47
SLOPE - 4" INT DRILL R-13 CELLULOSE	sqft	\$2.00
SLOPE - 5" INT DRILL R-16 CELLULOSE	sqft	\$2.10
SLOPE - 6" INT DRILL R-19 CELLULOSE	sqft	\$2.20
SLOPE - 7" INT DRILL R-22 CELLULOSE	sqft	\$2.30
SLOPE - 8" INT DRILL R-26 CELLULOSE	sqft	\$2.40
SLOPE - 9" INT DRILL R-29 CELLULOSE	sqft	\$2.50
SLOPE - 10" INT DRILL R-32 CELLULOSE	sqft	\$2.60
SLOPE - R-13 FIBERGLASS BATT	sqft	\$1.40
SLOPE - R-19 FIBERGLASS BATT	sqft	\$1.60
SLOPE - R-30 FIBERGLASS BATT	sqft	\$1.90
SLOPE - FLIP/SLASH EXISTING INSULATION	sqft	\$0.25
SLOPE - REMOVE EXISTING INSULATION	sqft	\$0.97

KNEEWALL		
KNEEWALL - 3" FIBERGLASS R-13	sqft	\$1.40
KNEEWALL - 6" FIBERGLASS R-19	sqft	\$1.60
KNEEWALL - RIGID BOARD	sqft	\$3.96
KNEEWALL- R-13 FG & RIGID BOARD	sqft	\$5.36
KNEEWALL - 4 INCH CELLULOSE	sqft	\$1.78
KNEEWALL - 5 INCH CELLULOSE	sqft	\$1.82
KNEEWALL - 6 INCH CELLULOSE	sqft	\$1.95
KNEEWALL - FLIP/SLASH EXISTING INSULATION	sqft	\$0.25
KNEEWALL - REMOVE EXISTING INSULATION	sqft	\$0.97
KNEEWALL FLOOR		
KNEEWALL FLOOR - 3" OPEN R-10 CELLULOSE	sqft	\$1.14
KNEEWALL FLOOR - 4" OPEN R-14 CELLULOSE	sqft	\$1.20
KNEEWALL FLOOR - 5" OPEN R-19 CELLULOSE	sqft	\$1.26
KNEEWALL FLOOR - 6" OPEN R-22 CELLULOSE	sqft	\$1.32
KNEEWALL FLOOR - 7" OPEN R-26 CELLULOSE	sqft	\$1.38
KNEEWALL FLOOR - 8" OPEN R-30 CELLULOSE	sqft	\$1.44
KNEEWALL FLOOR - 9" OPEN R-33 CELLULOSE	sqft	\$1.50
KNEEWALL FLOOR - 10" OPEN R-37 CELLULOSE	sqft	\$1.56
KNEEWALL FLOOR - 11" OPEN R-40 CELLULOSE	sqft	\$1.62
KNEEWALL FLOOR - 12" OPEN R-42 CELLULOSE	sqft	\$1.68
KNEEWALL FLOOR - 13" OPEN R-45 CELLULOSE	sqft	\$1.74
KNEEWALL FLOOR - 14" OPEN R-49 CELLULOSE	sqft	\$1.80
KNEEWALL FLOOR - 16" OPEN R-60 CELLULOSE	sqft	\$2.06
KNEEWALL FLOOR - 4" DENSE R-13 CELLULOSE	sqft	\$1.69
KNEEWALL FLOOR - 5" DENSE R-16 CELLULOSE	sqft	\$1.82
KNEEWALL FLOOR - 6" DENSE R-19 CELLULOSE	sqft	\$1.95
KNEEWALL FLOOR - 7" DENSE R-22 CELLULOSE	sqft	\$2.08
KNEEWALL FLOOR - 8" DENSE R-25 CELLULOSE	sqft	\$2.21
KNEEWALL FLOOR - 9" DENSE R-28 CELLULOSE	sqft	\$2.34
KNEEWALL FLOOR - 10" DENSE R-32 CELLULOSE	sqft	\$2.47
KNEEWALL FLOOR - 11" DENSE R-35 CELLULOSE	sqft	\$2.60
KNEEWALL FLOOR - 12" DENSE R-38 CELLULOSE	sqft	\$2.73
KNEEWALL FLOOR - 13" DENSE R-42 CELLULOSE	sqft	\$2.86
KNEEWALL FLOOR - 14" DENSE R-49 CELLULOSE	sqft	\$2.99
KNEEWALL FLOOR - 3" UNFACED R-13 FG BATT	sqft	\$1.40
KNEEWALL FLOOR - 3" FACED R-13 FG BATT	sqft	\$1.40
KNEEWALL FLOOR - 6" UNFACED R-19 FG BATT	sqft	\$1.60
KNEEWALL FLOOR - 6" FACED R-19 FG BATT	sqft	\$1.60
KNEEWALL FLOOR - 9" UNFACED R-30 FG BATT	sqft	\$1.90
KNEEWALL FLOOR - 9" FACED R-30 FG BATT	sqft	\$1.90
KNEEWALL FLOOR - 12" UNFACED R-38 FG BATT	sqft	\$2.05
KNEEWALL FLOOR - 12" FACED R-38 FG BATT	sqft	\$2.05
KNEEWALL FLOOR - FLIP/SLASH EXISTING INSULATION	sqft	\$0.25
KNEEWALL FLOOR - REMOVE EXISTING INSULATION	sqft	\$0.97
KNEEWALL SLOPE		
KNEEWALL SLOPE - 6" FIBERGLASS R-19	sqft	\$1.60
KNEEWALL SLOPE - 9" FIBERGLASS R-30	sqft	\$1.90
KNEEWALL SLOPE - RIGID BOARD	sqft	\$3.96
KNEEWALL SLOPE - 6" FIBERGLASS R-19 & RIGID	sqft	\$5.56
KNEEWALL SLOPE- RIGID BOARD & 4 INCH CELLULOSE	sqft	\$5.65
KNEEWALL SLOPE- RIGID BOARD & 6 INCH CELLULOSE	sqft	\$5.77
KNEEWALL SLOPE- RIGID BOARD & 8 INCH CELLULOSE	sqft	\$5.89
KNEEWALL SLOPE- RIGID BOARD & 10 INCH CELLULOSE	sqft	\$6.01
KNEEWALL SLOPE - FLIP/SLASH EXISTING INSULATION	sqft	\$0.25
KNEEWALL SLOPE - REMOVE EXISTING INSULATION	sqft	\$0.97

HATCHES AND ACCESSES		
ATTIC HATCH - INSULATE ONLY	ea	\$35.00
ATTIC HATCH - WEATHERSTRIP ONLY	ea	\$25.00
ATTIC HATCH - SEAL & INSULATE	ea	\$60.00
ATTIC DOOR - INSULATE & WS	ea	\$110.00
KNEEWALL HATCH - SEAL & INSULATE	ea	\$75.00
FINISHED CEILING ACCESS	ea	\$135.00
FINISHED KNEEWALL ACCESS	ea	\$135.00
PULL-DOWN STAIR - THERMADOME	ea	\$230.19
PULL-DOWN STAIR - THERMADOME BUILT-UP	ea	\$253.21
PULL-DOWN STAIR - THERMAL TENT	ea	\$226.65
ATTIC ACCESS THRU PLASTER & LATH	ea	\$226.49
TEMPORARY ACCESS THRU DRYWALL	ea	\$85.00
TEMPORARY ATTIC ACCESS THRU ROOF	ea	\$92.42
ACCESS WITH ROOF VENT	ea	\$92.42
ACCESS - ROOF STRIP UP TO 5 FT	ea	\$189.97
ACCESS - ROOF STRIP BEYOND 5 FT	lnft	\$13.46
SHEATHING ACCESS	ea	\$35.00
WHOLE HOUSE FAN COVER	ea	\$209.21
VENTING		
ROOF VENT 8 INCH	ea	\$92.42
ROOF VENT 12 INCH	ea	\$120.75
INSTALL RIDGE VENT	ea	\$25.00
ALUM GABLE VENT 12 X 12	ea	\$114.00
VINYL GABLE VENT 12 X 12	ea	\$114.00
WOOD GABLE VENT 12 X 12	ea	\$114.00
ALUM GABLE VENT 12 X 18	ea	\$123.50
VINYL GABLE VENT 12 X 18	ea	\$123.50
WOOD GABLE VENT 12 X 18	ea	\$123.50
ALUM GABLE VENT 12 X 24	ea	\$123.50
VINYL GABLE VENT 12 X 24	ea	\$123.50
WOOD GABLE VENT 12 X 24	ea	\$123.50
ALUM GABLE VENT 18 X 24	ea	\$123.50
VINYL GABLE VENT 18 X 24	ea	\$123.50
WOOD GABLE VENT 18 X 24	ea	\$123.50
SOFFIT VENTS 4 X 16	ea	\$28.91
SOFFIT VENTS 6 X 16	ea	\$28.91
SOFFIT VENTS 8 X 16	ea	\$28.91
PERFORATED SOFFIT PANELS	ea	\$26.00
FLAPPER VENT ONLY 4 INCH	ea	\$80.00
INSULATED BATH EXHAUST HOSE 4 INCH	ea	\$60.00
VENT BATH FAN THRU ROOF 4 INCH	ea	\$118.75
VENT BATH FAN THRU GABLE 4 INCH	ea	\$118.75
VENT BATH FAN THRU SOFFIT 4 INCH	ea	\$118.75
VENT FUTURE BATH FAN TO ROOF 4 INCH	ea	\$118.75
VENT INLINE FAN THRU ROOF 4 INCH	ea	\$138.75
FLAPPER VENT ONLY 6 INCH	ea	\$90.00
INSULATED BATH EXHAUST HOSE 6 INCH	ea	\$60.00
VENT BATH FAN THRU ROOF 6 INCH	ea	\$142.50
VENT BATH FAN THRU GABLE 6 INCH	ea	\$142.50
VENT BATH FAN THRU SOFFIT 6 INCH	ea	\$142.50
VENT FUTURE BATH FAN TO ROOF 6 INCH	ea	\$142.50
KITCHEN EXHAUST THRU ROOF	ea	\$275.00
VENTILATION CHUTES	ea	\$2.50
DRYER VENT THRU ROOF	ea	\$150.00
DRYER VENT THRU WALL	ea	\$150.00

AIR SEALING		
HOME AIR SEALING	per hr	\$80.00
DUCT SEALING	per hr	\$80.00
FSK PAPER FOR AIR BARRIER	sqft	\$0.73
WEATHERSTRIP DOOR	ea	\$58.00
DOORSWEEP	ea	\$25.00
WEATHERSTRIP AND ADD DOOR SWEEP	ea	\$80.00
PIPE TENTING	lnft	\$6.15
TRANSITIONS - OPEN	lnft	\$6.84
TRANSITIONS - FLOORED	lnft	\$13.68
TRANSITIONS - DENSE PACK	lnft	\$4.00
EXTERIOR WALLS		
WALL INSULATION - VINYL SIDED	sqft	\$2.01
WALL INSULATION - WOOD SIDED	sqft	\$2.01
WALL INSULATION - ASPHALT SIDED	sqft	\$2.01
WALL INSULATION - ALUMINUM SIDED	sqft	\$2.42
WALL INSULATION - ASBESTOS SIDED	sqft	\$2.65
WALLS - MULTI- LAYER (3 OR MORE)	sqft	\$2.32
WALLS - INTERIOR DRILL AND PLUG	sqft	\$2.06
WALLS - EXTERIOR DRILL AND PLUG	sqft	\$2.01
WALLS - BLOWN FIBERGLASS	sqft	\$1.80
WALLS - THIN BATT	sqft	\$2.42
WALLS - 3RD STORY ADDER	ea/sqft	\$100.00
COMMON WALLS		
COMMON WALL - INTERIOR DRILL AND PLUG	sqft	\$1.85
COMMON WALL - R-13 FIBERGLASS BATT	sqft	\$1.40
COMMON WALL - R-19 FIBERGLASS BATT	sqft	\$1.60
COMMON WALL - R-30 FIBERGLASS BATT	sqft	\$1.90
COMMON WALL - RIGID BOARD	sqft	\$3.96
COMMON WALL - R-13 FIBERGLASS AND RIGID BOARD	sqft	\$5.36
COMMON WALL - R-19 FIBERGLASS AND RIGID BOARD	sqft	\$5.56
COMMON WALL - R-30 FIBERGLASS AND RIGID BOARD	sqft	\$5.86
INSULATE PLASTERED STAIRWELL	ea	\$235.00
BASEMENT		
BASEMENT CEILING - R-13 FIBERGLASS BATT	sqft	\$1.52
BASEMENT CEILING - R-19 FIBERGLASS BATT	sqft	\$1.70
BASEMENT CEILING - R-30 FIBERGLASS BATT	sqft	\$2.05
BASEMENT CEILING - R-19 FG BATT RANDOM	sqft	\$1.87
BASEMENT CEILING - ENCAPSULATED R-19 FG BATT	sqft	\$2.20
BASEMENT SILLS - R-19 FIBERGLASS BATT	sqft	\$1.95
BASEMENT SILLS - RIGID BOARD INSULATION	sqft	\$3.96
INSULATE BULKHEAD DOOR	ea	\$110.00
BULKHEAD DOOR SITE-BUILT	ea	\$566.50
BASEMENT - FLIP/SLASH EXISTING INSULATION	sqft	\$0.25
BASEMENT - REMOVE EXISTING INSULATION	sqft	\$0.97
CRAWLSPACE		
CRAWLSPACE - 10MIL GROUND COVER	sqft	\$0.97
CRAWLSPACE - R-13 FIBERGLASS BATT	sqft	\$1.68
CRAWLSPACE - R-19 FIBERGLASS BATT	sqft	\$1.80
CRAWLSPACE - R-30 FIBERGLASS BATT	sqft	\$2.10
CRAWLSPACE - R-19 FIBERGLASS RANDOM	sqft	\$2.00
CRAWLSPACE - R-30 FIBERGLASS RANDOM	sqft	\$2.20
CRAWLSPACE - R-19 FIBERGLASS AND RIGID BOARD	sqft	\$5.96
CRAWLSPACE - R-30 FIBERGLASS AND RIGID BOARD	sqft	\$6.26
CRAWLSPACE - INSULATE DOOR	ea	\$60.00
CRAWLSPACE - MAKE ACCESS DOOR	ea	\$250.00
CRAWLSPACE CEILING - RIGID BOARD	sqft	\$4.16
CRAWLSPACE WALL - RIGID BOARD	sqft	\$4.16
CRAWLSPACE - FLIP/SLASH EXISTING INSULATION	sqft	\$0.25
CRAWLSPACE - REMOVE EXISTING INSULATION	sqft	\$0.97
OVERHANG		

OVERHANG - 4" DENSE R-14 CELLULOSE	sqft	\$3.81
OVERHANG - 6" DENSE R-21 CELLULOSE	sqft	\$3.84
OVERHANG - 8" DENSE R-28 CELLULOSE	sqft	\$3.93
OVERHANG - 10" DENSE R-32 CELLULOSE	sqft	\$4.00
OVERHANG - 12" DENSE R-38 CELLULOSE	sqft	\$4.08
OVERHANG - RIGID BOARD	sqft	\$3.96
OVERHANG - R-13 FG AND RIGID BOARD	sqft	\$5.36
OVERHANG - R-19 FG AND RIGID BOARD	sqft	\$5.56
OVERHANG - R-30 FG AND RIGID BOARD	sqft	\$5.86
GARAGE		
GARAGE CEILING - 4" DENSE CELLULOSE	sqft	\$1.85
GARAGE CEILING - 5" DENSE CELLULOSE	sqft	\$1.90
GARAGE CEILING - 6" DENSE CELLULOSE	sqft	\$1.95
GARAGE CEILING - 7" DENSE CELLULOSE	sqft	\$2.08
GARAGE CEILING - 8" DENSE CELLULOSE	sqft	\$2.21
GARAGE CEILING - 9" DENSE CELLULOSE	sqft	\$2.34
GARAGE CEILING - 10" DENSE CELLULOSE	sqft	\$2.47
GARAGE CEILING - 11" DENSE CELLULOSE	sqft	\$2.60
GARAGE CEILING - 12" DENSE CELLULOSE	sqft	\$2.73
DUCT/PIPE INSULATION		
DUCT INSULATION - >200 ft	sqft	\$4.00
DUCT INSULATION - >50 & <200 ft	sqft	\$4.00
DUCT INSULATION - <50 ft	sqft	\$4.00
INSULATED FLEX DUCT 8" OR 10" RETURN	lnft	\$9.00
INSULATED FLEX DUCT 16" RETURN	lnft	\$12.00
1/2 INCH CLOSED CELL FOAM PIPE INSULATION	lnft	\$4.00
3/4 INCH CLOSED CELL FOAM PIPE INSULATION	lnft	\$4.00
HEAT PIPE INSULATION 1/2 INCH	lnft	\$5.50
HEAT PIPE INSULATION 3/4 INCH	lnft	\$6.00
HEAT PIPE INSULATION 1 INCH	lnft	\$6.50
HEATING PIPE INSULATION 1 1/4 INCH	lnft	\$6.70
HEATING PIPE INSULATION 1 1/2 INCH	lnft	\$6.90
HEATING PIPE INSULATION 2 INCH	lnft	\$7.10
HEATING PIPE INSULATION 2 1/2 INCH	lnft	\$7.30
HEATING PIPE INSULATION 3 INCH	lnft	\$7.40
HEATING PIPE INSULATION 3 1/2 INCH	lnft	\$7.60
HEATING PIPE INSULATION 4 INCH	lnft	\$7.80
HEATING PIPE INSULATION 5 INCH	lnft	\$8.20
HEATING PIPE INSULATION 6 INCH	lnft	\$8.60
HEAT PIPE INSUL 1/2 INCH TEE-ELBOW	ea	\$5.50
HEAT PIPE INSUL 3/4 INCH TEE-ELBOW	ea	\$6.00
HEAT PIPE INSUL 1 INCH TEE-ELBOW	ea	\$6.20
HEAT PIPE INSUL 1 1/4 INCH TEE-ELBOW	ea	\$6.40
HEAT PIPE INSUL 1 1/2 INCH TEE-ELBOW	ea	\$6.70
HEAT PIPE INSUL 2 INCH TEE-ELBOW	ea	\$7.30
HEAT PIPE INSUL 2 1/2 INCH TEE-ELBOW	ea	\$7.40
HEAT PIPE INSUL 3 INCH TEE-ELBOW	ea	\$7.80
HEAT PIPE INSUL 3 1/2 INCH TEE-ELBOW	ea	\$8.20
HEATING PIPE INSULATION 4 INCH TEE-ELBOW	ea	\$9.00
HEATING PIPE INSULATION 5 INCH TEE-ELBOW	ea	\$12.00
HEATING PIPE INSULATION 6 INCH TEE-ELBOW	ea	\$19.00
ASSOCIATED SERVICES		
BLOWER DOOR TEST	ea	\$65.00
CAZ Testing	ea	\$65.00
BLOWER DOOR & CAZ TESTING	ea	\$90.00
DUCT FLOW TEST	ea	\$40.00