

BPA Energy Efficiency Maximizer Tool Instructions

Overview

The EE Maximizer is a tool BPA has developed to provide our customer utilities with a means to effectively plan their portfolio of efficiency measures to maximize the kWhs saved and or the financial benefit to the utility. This valuable tool helps utilities best spend their conservation dollars in terms of maximizing kWh saved and maximizing reimbursements.

Walkthrough

Getting Started:

Download the EE Maximizer Tool on the BPA Energy Efficiency Homepage under “News and Resources”

Note: Macros must be enabled for the Maximizer Tool to work properly.

Step I: Choose Your Utility

The EE Maximizer has a dropdown menu that contains all of BPA’s customer utilities, by choosing your utility the tool will automatically load your rate period EEI budget, your total number of meters, total MWh of retail sales, and your percent of sales by sector.

Energy Efficiency Maximizer
Objective: Provide customer utilities with a enable the maximization of EEI funding and kWhs saved or financial benefit.

Customer: **Benton County PUD #1**
Macros must be enabled.

EEI Budget (for rate period): \$ 3,640,098

Maximizer Budget: (Enter unused portion of EEI funds or a self-funding amount)

Customer Composition

Total Number of Meters	47,616		
Total Retail Sales (MWh)	1,592,802		
Percent of Total Sales	Residential 41%	Commercial 32%	Industrial/Agricultural 27%
Percent of Total Conservation	45%	11%	44%



Step II: Enter The Budget

Below your total EEI budget you have an option to enter a different budget number. This can be your remaining EEI budget, a self funding total, or any other amount of funding you would like to analyze for your EE portfolio. *Note: Yellow fields indicate a variable that the user must input.*

C	D	E	F	G	H	I	J
Customer:		Benton County PUD #1					Energy Efficiency Maximizer
Macros must be enabled.							Objective: Provide customer utilities with a enable the maximization of EEI funding and of kWhs saved or financial benefit.
EEI Budget (for rate period):		\$ 3,640,098					
Maximizer Budget:		\$ 500,000					(Enter unused portion of EEI funds or a self-funding amount)

Step III: Enter The Considered Measures

The EE Maximizer has drop down menus that allow you to select up to 10 measures in the residential, commercial, and agricultural sectors in order to compare their impact and applicability to your territory. The drop down menu provides commonly used measures in each sector.

Potential Energy Efficiency Measures to Implement	
Measure #1	Market Sector: Residential Measure: Duct Sealing
Measure #2	Market Sector: Residential Measure: Lamps - Retail (4 bulbs each)
Measure #3	Market Sector: Commercial Measure: Power Strips (per strip)

Step IV: Enter Target Installations or Market Penetration

Once you have chosen which measures you would like to compare, you will have the option of entering the estimated uptake in that market sector *or* the actual number of units installed. *Note: You cannot do both; just one or the other. Entering both fields will result in a user error.*

Measure	# of Meters in Market Sector	Estimated Uptake		Estimated Per Unit Rebate to End User	Estimated Per Unit Utility Cost to run Program	# of units installed	Estimated kWh Savings	Est. EEI Funding	Net (Cost)/Benefit to Utility of Program
		(%)	# of units installed						
Duct Sealing	39687		200			200	322,783	\$ 89,231	\$ 89,231
Lamps - Retail (4 bulbs each)	39687	1				39687	2,936,838	\$ 377,027	\$ 377,027
Power Strips (per strip)	7190		500			500	54,500	\$ 7,500	\$ 7,500
	#/N/A								
	#/N/A								
	#/N/A								
	#/N/A								
	#/N/A								
	#/N/A								
Totals:							3,314,101	\$ 473,757	\$ 473,757

Step V: Enter The Estimated Per Unit Rebate To End User

The next step is entering the estimated per unit rebate to end-users. This is the actual rebate the utility will pay to the end user. The next column over is the estimated per unit utility cost to run the program. It will include the actual rebate to the end user as well as any sort of admin cost you want to put into that.

Measure	# of Meters in Market Sector	Estimated Uptake		Estimated Per Unit Rebate to End User	Estimated Per Unit Utility Cost to run Program	# of units installed	Estimated kWh Savings	Est. EEI Funding	Net (Cost)/Benefit to Utility of Program
		(%)	# of units installed						
Duct Sealing	39687		200	500	20	200	322,783	\$ 89,231	\$ (14,789)
Lamps - Retail (4 bulbs each)	39687	1		0	10	39687	2,936,838	\$ 377,027	\$ (19,844)
Power Strips (per strip)	7190		500	15	1	500	54,500	\$ 7,500	\$ (500)
	#/N/A								
	#/N/A								
	#/N/A								
	#/N/A								
	#/N/A								
	#/N/A								
Totals:							3,314,101	\$ 473,757	\$ (35,113)

Step VI: Remaining Budget and Performance Payment

The tool will use the measures and estimated installations entered to calculate both your remaining budget and allowable performance payment based on the information you entered. Should these two numbers be equal, the maximum performance payment exceeds the total amount remaining in the budget you entered.

Remaining Budget: \$ 26,243

Estimated Available Performance Payment
\$ 26,243

(Performance Payment not included in "Remaining Budget" calculation above)

Step VII: Utilize The "Cheat Sheet"

Lastly, the user can utilize the "cheat sheet" provided for the utility. This reference tool has all the measures offered, allowing the user to record the per unit rebate to the end user and per unit cost to run the program. This is useful for when you are changing your measures and can quickly reference the cost without having to change other numbers.

Residential Measures	kWh Saved/EEI Dollar	Per Unit Est. Rebate to End User	Per Unit Utility Cost to run Program
1 Showerheads - Direct Install	9.03		
2 Showerheads - Retail	8.67		
3 Showerheads - Direct Mail	8.31		
4 Lamps - Retail (4 bulbs each)	7.79	0	10
5 Lamps - Direct Install (4 bulbs each)	7.20		
6 Lamps - Direct Mail (4 bulbs each)	6.40		
7 Water Heaters	4.89		
8 Windows (per square foot)	3.96		
9 NEEM Manufactured Homes	3.71		
10 PTCS Heat Pumps (Upgrade)	3.64		
11 Duct Sealing	3.62	500	20
12 Clothes Washers	3.51		
13 Insulation - Floor (per square foot)	3.39		
14 Energy Star Homes NW - electric zonal	3.26		
15 Insulation - Attic (per square foot)	3.22		
16 Refrigerators	2.93		
17 Ductless Heat Pumps	2.33		