Energy Savings Calculations

The funds utilized to finance the District Heights Energy Efficiency Program (DHEEP)are awarded through the Energy Efficiency Conservation Block Grant (EECBG) Program. As a result, the DHEEP is required to report on the energy efficiencies gained through this grant. To calculate energy efficiency please provide the following information regarding the improvements you performed to your home. Your contractor is required to fill out this information. In addition to the utility use table below, complete only the information related to improvements performed specifically to your home. For example, if you replaced a furnace and insulation in your attic, the contractor would only need to complete those two lines.

Annual Utility Usage for Residence (12 month period) [1]		
Utility	**Energy Use**	**Annual Cost**
Electric	kWh/year	
Gas	Therms/year	

Property Improvements Performed					
Instructions: This information must be submitted by the Contractor. The Contractor can submit their own form with the same data, but this data summary table must ALSO be submitted to GEEP with final invoice/reports. Owner must provide the contractor as much info as possible to complete the tables below.					
What was Replaced			**What was Installed**		**Estimated Annual**
Mechanical Equipment	**Energy Rating** [2]	**Energy Usage** [3] **(per year)**	**Energy Rating** [2]	**Energy Usage** [3] **(per year)**	**Energy Savings (in kWH or therms/yr)**
Furnace	AFUE	therms	AFUE	therms	
Air Conditioning	SEER	kWH	SEER	kWH	
Water Heater					
Insulation	**Energy Rating** [2]		**Energy Rating** [2]	**Square Feet Installed**	
Attic	R-		R-		
Wall	R-		R-		
Exterior Improvements	**Type Replaced (circle one)**		**Energy Rating** [2]	**Amount Replaced**	
Doors	1) Solid 2) 25% Glass 3) 50% Glass 4)+75% Glass		____ U-Factor	# of doors _____	
Windows	Single Pane Double Pane		_____ U-Factor	# of windows _____	
Roofing	Roof Slope: 1) Greater than 2:12 2) Greater than 2:12		Reflectance _____	Roof area: _____ sq ft.	

Energy Star © Applicances & Water wise © products [4]

Washer/Dryer

Enter your own values in the gray boxes [5]

Choose the type of washing machine	
Number of units	1
Electric rate ($/kWh)	$0.000
Water rate ($/1000 gallons)	$0.000
Gas rate ($/therm)	$0.000
Average number of loads per week	0.0
Type of water heating	
Type of clothes dryer	

	ENERGY STAR Qualified Unit	Conventional Unit
Initial cost per unit (estimated retail price)	$0	$0

Dishwasher

Number of units	1
Electric Rate ($/kWh)	$0.000
Water Rate ($/1000 gallons)	$0.000
Gas Rate ($/therm)	$0.000
Type of Dishwasher	
Building Hot Water Fuel Type	
Booster Water Heater Fuel Type	

Note that low temperature units do not include a booster heater

	ENERGY STAR Qualified	Conventional Unit
Initial Cost per Unit (estimated retail price)	$0	$0

Refrigerator

Number of refrigerators	1
Refrigerator type	
Refrigerator volume	0.0
Electricity rate ($/kWh)	$0.000

	Conventional Unit	ENERGY STAR Qualified Unit
Unit energy consumption (kWh/year)	0	0
Cost difference between one ENERGY STAR qualified unit and one conventional unit		#N/A

Low Flow Toilets

Number of toilets				
Toilet Type		Single flush, tank-type gravity toilets;		
		Dual flush, tank-type gravity toilets;		
		Dual flush, tank-type flushometer tank (pressure-assist) toilets;		
		Tank-type, flushometer tank (pressure-assist) toilets;		
		Tank-type electrohydraulic toilets;		
Toilet flush volume [6]		< 1.28 gallons [1] (4.8 liters)		> 1.28 gallons (4.8 liters)
Toilet Solid Waste Removal [7]		< 350 grams[2] or greater		< 350 grams

Faucets and Showerheads

Water Saving Products	Faucet	Showerhead	Energy Savings
Default data			
Flow Rate	***2.2 gpm***	***2.5 gpm***	
Water Cost (including waste water charges)	***$4/1000 gal***	***$4/1000 gal***	
Gas Cost	***0.60 $/therm***	***0.60 $/therm***	
Insert your specific home data			
Electricity Cost	_____ *$/kWh*	_____ *$/kWh*	
Minutes per Day of Operation	____ *minutes*	_____ *minutes*	
Days per Year of Operation	_____ *days*	____ *days*	
Quantity to be Purchased	_____ *# of units*	_____ *# of units*	
		Total Energy Savings:	
		Number of Hours Contractor Worked on Job [8]	

1. For office use only

2. For energy rating indicate the following: a) insulation: R-value, b) water heater: BTU (gas) or KWH (electric), c) furnace: AFUE, d) air conditioners: SEER, e)windows/doors: U-Factor, f) roofing: solar reflectance & roof slope

3. Information can be obtained from owners manual or energy ratings papers typically found with the documents included with new mechanical euipment and appliances.

4. Go to energystar.gov for more information on Energy star and Water wise EPA Approved products

5. This energy savings calculator was developed by the U.S. EPA and U.S. DOE and is provided for estimating purposes only. Actual energy savings may vary based on use and other factors.

6. Toilet flush volume shall not exceed 1.28 gallons [1] (4.8 liters)

1 The effective flush volume has been established as 1.28 gallons, which is a 20 percent reduction from the 1.6 gallons per flush standard that became mandatory pursuant to the 1992 EPAct.

7. Toilet solid waste removal must be 350 grams [2] or greater

2. A qualified HET must provide superior flushing performance while saving significant volumes of water. Based on data contained in the medical study Variability of colonic function in healthy subjects, 1978, J.B. Wyman, K.W. Heaton, A.P. Manning, and A.C.B. Wicks of the University Department of Medicine, Bristol Royal Infirmary, the greatest single 'loading' of the 20 study participants was approximately 450g, and the 99.5 percent confidence level of the men in the study equates to a loading of approximately 350g.

8. Information will be utilized to determine the number of jobs created by the program.