

HVAC Technical Sheet

Energy Solutions for Business

Baltimore Gas and Electric Company (BGE) offers incentives through its Smart Energy Savers Program® to help commercial, industrial, government, institutional and nonprofit electric service customers offset the upfront costs for energy-efficient improvements. The HVAC Technical Sheet covers HVAC equipment and HVAC chillers for end-of-life equipment replacements, new equipment purchases for new construction, and major renovation and remodeling projects. Measures can include air- and water-cooled chillers, air conditioners, heat pumps and economizer controls.

Application and Instructions

Eligible Participants

Incentives are available to non-residential, commercial, industrial, government, institutional and nonprofit electric service customers within the BGE service territory that fall under rate schedules G, GS, GL, P or T.

Eligible Equipment

All equipment must be new and meet all designated requirements. Used equipment or equipment not meeting program and/or technical requirements is not eligible for incentives. Existing equipment must be removed and may not be reinstalled within the BGE service territory.

Submitting an Application

All HVAC applications, regardless of the total requested incentive amount, require a [program preapproval letter](#). No amount of existing equipment being replaced may be removed or altered, and no amount of proposed equipment applied for may be purchased and/or installed prior to the issuance of a program preapproval letter. To receive a program preapproval letter, an application must first be submitted for review through [BGE's Application Center](#) and include the manufacturer data (cut) sheets for all proposed equipment, and customer-signed [Terms and Conditions](#).

Approval Requirements

Once an application has been submitted, the project will be assigned a project ID. A [program preapproval letter](#) will be issued once the application has been preapproved. Only at this time may any existing equipment being replaced be removed or altered and may the proposed equipment being applied for be purchased and/or installed. Once the installation of all proposed equipment is complete and the BGE customer is satisfied with the equipment and installation, the BGE customer must sign the program preapproval letter. The BGE customer-signed preapproval letter must be uploaded to the [BGE Application Center](#) along with the final detailed invoice(s). Preapproval commitments are valid for up to six months for prescriptive retrofit projects, and up to 12 months for new construction and custom projects from the date of the preapproval letter that is issued to the customer of record.

Program Details

Details of the program, including incentive levels and technical requirements, are subject to change without prior notice. You may go to [BGESmartEnergy.com](#) to get the most current program information, or you may call 410.290.1202.

Total incentives are limited to \$1,000,000 per federal tax ID per calendar year. Incentives above this level may be granted on a case-by-case basis subject to program budget limitations. BGE reserves the right to deny any application that may result in BGE exceeding its program budget.

Participation Instructions

Step 1

Verify that your project meets the eligibility requirements specified on the HVAC Technical Sheet. Visit the program website at [BGESmartEnergy.com/business/energy-solutions-business](#) or contact us at 410.290.1202 with any questions about eligibility.

Step 2

Whether the application is submitted by the BGE end-use customer or the Service Provider, the Service Provider and/or installation contractor must submit an [Energy Solutions for Business Service Provider application](#) prior to the submission of incentive applications. The party listed as completing and submitting the application must be the party who completes and submits the application. Service Providers and installation contractors must be properly licensed and insured and could face participation restrictions based on their cumulative score through the Application Evaluation System. For a list of Service Providers who have participated in the program and currently have no participation restrictions, please visit the Energy Solutions for Business [Service Provider Directory](#).

Step 3

Visit [the Application Center](#) to submit an online application. Refer to the Application Checklist to verify that all required information and documentation is included for submission to BGE.

All elements of a completed application must be uploaded to the Application Center. All applications will be reviewed for eligibility and completeness. Completed applications will be reviewed in the order received. Applicants who submit incomplete applications will be notified of deficiencies. BGE may require a pre-installation inspection and will notify customers if an inspection of the facility is necessary.

Step 4

The application will be processed, and BGE will notify the applicant in writing when the review is complete and if funds have been reserved. Upon receipt of the program preapproval letter, participants may begin removing/altering existing equipment and purchase and install the program-approved energy-efficient equipment. Notify BGE immediately if there are any changes to the scope of work, as this may require additional preapproval.

Step 5

Upon project completion, please review your approved application and note any changes to the project that occurred during installation. The BGE end-use customer must sign and return the [program preapproval letter](#) and provide invoices for all energy efficiency measures. BGE may require a post-installation inspection to verify compliance with program rules and verify the accuracy of project documentation and equipment operation.

BGE will authorize payment upon the application's review and approval. The incentive check should be received within six to eight weeks after the project's completion and final project approval.

Questions

If you have questions about the program, call 410.290.1202, email Business@BGESmartEnergy.com or visit [BGESmartEnergy.com](#).

I. APPLICATION CHECKLIST

Please include the following items when you apply through [the Application Center](#):

- BGE electric account number
- [Terms and Conditions](#) signed by the BGE end-use customer
- Supporting documentation to include manufacturer's specification (cut) sheets or AHRI certificate (when appropriate)

BGE will process applications for payment in the order received and issue incentive payment within six to eight weeks after project completion and approval. Applicants will be notified if post-installation inspections are required prior to final payment. **Please note that failure to provide any of the above items may delay the processing of your application and result in a reduction in a Service Provider's Evaluation Score.**

II. UNITARY HVAC EQUIPMENT INFORMATION

Eligible systems are: electric heat pumps, single packaged units and split systems. Unitary and split-system cooling equipment must meet Air Conditioning and Refrigeration Institute (ARI) standards (210/240, 320 or 340/360), be UL listed and use a minimum ozone-depleting refrigerant (e.g., HCFC or HFC). Qualifying split systems must have both a new condenser and a new coil that meets ARI specifications and where the matched system performance (condenser and coil) meets or exceeds the minimum requirements outlined in the Unitary HVAC Incentives table below.

Variable Refrigerant Flow Systems: Eligible variable refrigerant flow (VRF) heat pumps are systems that do not incorporate heat recovery capability. VRF heat pump systems with heat recovery are eligible for Custom path incentives.

Application Center Equipment Guide

Product Type	Category	Product
Heating & Cooling Equipment	Air Conditioners	Air Conditioning Only
Heating & Cooling Equipment	Heat Pumps	Air Source Heat Pump
Heating & Cooling Equipment	Heat Pumps	Variable Refrigerant Flow Heat Pump
Heating & Cooling Equipment	Air Conditioners	Ductless Mini Split Air Conditioner
Heating & Cooling Equipment	Heat Pumps	Ductless Mini Split Heat Pump
Heating & Cooling Equipment	Geothermal Heat Pumps	Ground Water Source Heat Pump
Heating & Cooling Equipment	Geothermal Heat Pumps	Ground Source Heat Pump
Heating & Cooling Equipment	Air Conditioners	Packaged Terminal Air Conditioner
Heating & Cooling Equipment	Heat Pumps	Packaged Terminal Heat Pump
Heating & Cooling Equipment	Heat Pumps	Water Source Heat Pump
Heating & Cooling Equipment	Air Conditioners	Water-Cooled Air Conditioner

III. UNITARY HVAC INCENTIVES

Sub-Category	Cooling Capacity Btu/h	Size Category (tons)	Minimum Requirements			Incentive*	Unit	Dual Enthalpy Economizer (per unit)**
			SEER/ IEER	EER	HSPF/ COP			
Air Conditioning Only (A/C) (units with electric heat or no heat)								
Either	< 65,000	< 5.4	16	N/A	N/A	\$200	per ton	\$200
Either	≥ 65,000 and < 135,000	≥ 5.4 and < 11.25	14	11.4	N/A	\$200	per ton	\$200
Either	≥ 135,000 and < 240,000	≥ 11.25 and < 20	13.2	11.1	N/A	\$200	per ton	\$200
Either	≥ 240,000 and < 760,000	≥ 20 and < 63.3	12.3	10.1	N/A	\$200	per ton	\$200
Either	≥ 760,000	≥ 63.3	11.6	9.8	N/A	\$200	per ton	\$200

III. UNITARY HVAC INCENTIVES (continued)								
Sub-Category	Cooling Capacity Btu/h	Size Category (tons)	Minimum Requirements			Incentive*	Unit	Dual Enthalpy Economizer (per unit)**
			SEER/ IEER	EER	HSPF/ COP			
Air Conditioning Only (A/C) (units with gas heat)								
Either	< 65,000	< 5.4	16	N/A	N/A	\$200	per ton	\$200
Either	≥ 65,000 and < 135,000	≥ 5.4 and < 11.25	14	11.2	N/A	\$200	per ton	\$200
Either	≥ 135,000 and < 240,000	≥ 11.25 and < 20	13.2	10.9	N/A	\$200	per ton	\$200
Either	≥ 240,000 and < 760,000	≥ 20 and < 63.3	12.3	9.9	N/A	\$200	per ton	\$200
Either	≥ 760,000	≥ 63.3	11.6	9.6	N/A	\$200	per ton	\$200
Air Source Heat Pumps (ASHP) (units with electric heat or no heat)								
Single Package	< 65,000	< 5.4	16	N/A	8.2	\$200	per ton	\$200
Split	< 65,000	< 5.4	16	N/A	9	\$200	per ton	\$200
Either	≥ 65,000 and < 135,000	≥ 5.4 and < 11.25	13	11.3	3.4	\$200	per ton	\$200
Either	≥ 135,000 and < 240,000	≥ 11.25	12	10.7	3.3	\$200	per ton	\$200
Either	≥ 240,000	≥ 20	11	9.6	3.3	\$200	per ton	\$200
Air Source Heat Pumps (ASHP) (units with gas heat)								
Single Package	< 65,000	< 5.4	16	N/A	8.2	\$200	per ton	\$200
Split	< 65,000	< 5.4	16	N/A	9	\$200	per ton	\$200
Either	≥ 65,000 and < 135,000	≥ 5.4 and < 11.25	13	12	3.4	\$200	per ton	\$200
Either	≥ 135,000 and < 240,000	≥ 11.25	12	10.8	3.3	\$200	per ton	\$200
Either	≥ 240,000	≥ 20	10.8	9.4	3.3	\$200	per ton	\$200
Water-Cooled and Evaporative Air Conditioner (W)								
Either	< 65,000	< 5.4	16	13	N/A	\$200	per ton	\$200
Either	≥ 65,000 and < 135,000	≥ 5.4 and < 11.25	14.8	12.2	N/A	\$200	per ton	\$200
Either	≥ 135,000 and < 240,000	≥ 11.25 and < 20	14.8	12.6	N/A	\$150	per ton	\$200
Either	≥ 240,000 and < 760,000	≥ 20 and < 63.3	14	12.5	N/A	\$150	per ton	\$200
Either	≥ 760,000	≥ 63.3	14	12.3	N/A	\$150	per ton	\$200
Packaged Terminal Air Conditioner (PTAC)								
Single Package	< 9,000	< 3/4	N/A	12	N/A	\$50	per unit	N/A
Single Package	≥ 9,000 and < 12,000	≥ 3/4 and < 1	N/A	11.4	N/A	\$75	per unit	N/A
Single Package	≥ 12,000	≥ 1	N/A	10.5	N/A	\$100	per unit	N/A
Packaged Terminal Heat Pump (PTHP)								
Single Package	< 9,000	< 3/4	N/A	11.7	3.4	\$50	per unit	N/A
Single Package	≥ 9,000 and < 12,000	≥ 3/4 and < 1	N/A	11	3.3	\$75	per unit	N/A
Single Package	≥ 12,000	≥ 1	N/A	10.1	3.1	\$100	per unit	N/A
Ductless, Mini-Split Air Conditioners and Heat Pumps (D/MSAC/HP)								
Ductless Mini-Split AC	All	All	16	N/A	N/A	\$100	per ton	N/A
Ductless Mini-Split Heat Pump	All	All	16	N/A	8.2	\$100	per ton	N/A

*Note that the incentive will be based upon actual tons calculated by dividing the rated Btu/hour shown on the specifications by 12,000.

**Measures in the following categories are eligible for an additional \$200/unit incentive when a Dual Enthalpy (DE) Economizer is installed on a new HVAC unit meeting the minimum requirements: Air Conditioning, Air Source Heat Pumps, and Water-Cooled Air Conditioners.

IV. VARIABLE REFRIGERANT FLOW INCENTIVES							
Cooling Capacity Btu/h	Size Category (tons)	Minimum Requirements				Incentive	Unit
		SEER/ IEER	EER	COP at 47° F	COP at 17° F		
Variable Refrigerant Flow (VRF)							
< 65,000	<5.4	16	12.5	8.5 (HSPF)	8.5 (HSPF)	\$250	per ton
≥ 65,000 and < 135,000	≥ 5.4 and < 11.25	16	11.3	3.4	2.4	\$250	per ton
≥ 135,000 and < 240,000	≥ 11.25	16	10.9	3.2	2.1	\$250	per ton
≥ 240,000	≥ 20	16	10.3	3.2	2.1	\$250	per ton

V. GEOTHERMAL INCENTIVES							
Qualifying equipment must meet or exceed the minimum EER/COP outlined in the table below.							
Type	Capacity	Program Minimum Requirements and Incentives					
		Tier 1			Tier 2		
		EER	COP	Incentive	EER	COP	Incentive
Water Source Heat Pump							
Water to Air	< 17,000 Btu/h	13.2	4.7	\$200/ton	N/A	N/A	N/A
Water to Air	≥ 17,000 and < 135,000 Btu/h	14	4.7	\$200/ton	N/A	N/A	N/A
Water to Water	≥ 17,000 and < 135,000 Btu/h	11.6	4	\$200/ton	N/A	N/A	N/A
Ground Source Heat Pump							
Brine to Air	< 135,000 Btu/h	15.5	3.4	\$250/ton	16.2	3.5	\$300/ton
Brine to Water	< 135,000 Btu/h	13.3	2.6	\$250/ton	13.9	2.8	\$300/ton
Ground Water Source Heat Pump							
Water to Air	< 135,000 Btu/h	19.8	3.9	\$250/ton	20.7	4.1	\$300/ton
Water to Water	< 135,000 Btu/h	17.9	3.3	\$250/ton	18.7	3.4	\$300/ton

VI. CONTROLS INCENTIVES			
Smart Thermostats: Only for central AC, HP, furnace or RTUs with cooling capacities up to 300 kBtu/h. Must be installed in normally conditioned spaces - not partially conditioned or with frequently opened doors. Eligible only for thermostats that have earned ENERGY STAR® or:			
<ol style="list-style-type: none"> 1) Automatic scheduling 2) Occupancy sensing ("on" as default) 3) Must be capable of optimizing heat pump energy use, minimize supplemental heat 4) Must be able to control via smart phone or online, and also locally be able to view temp, adjust temp, and switch between heating, cooling and off settings 5) Static temp accuracy of < +/- 2 deg F 6) Network standby average power consumption of < 3W, including all equipment needed to maintain connectivity 			
Hotel room and receptacle controls: Facility must be a lodging business. Incentives are for occupancy-based guest room energy management controls. Occupancy control may be room-key activated or sensed due to motion and/or sound and must control the HVAC system serving the room. Front desk control systems and new construction are not eligible.			
Measure/Product	Per Unit Incentive	Application Center Equipment Guide	
		Product Type	Category
Smart Thermostats	\$50/thermostat	Controls	Smart Thermostats
Hotel Room HVAC Controls	\$70/room	Controls	Hotel Room Controls
Receptacle Controls	\$10/control	Controls	Hotel Room Controls

VII. HVAC CHILLER INCENTIVES

Eligible systems are air- and water-cooled water chilling packages, 1,000 tons and less, used in single-chiller HVAC applications. Water-chilling equipment must meet the current Air Conditioning and Refrigeration Institute (ARI) standards 550/590, be UL-listed, and use a minimum ozone-depleting refrigerant (e.g., HCFC or HFC). Chillers installed in multiple chiller systems and chillers serving a non-HVAC load greater than 25% of chiller capacity are not eligible under this application form, but customers using these systems may apply using the BGE Custom application form.

*Note: Performance Incentive: For each 0.1 EER point above or for each 0.01 kW below minimum efficiency Full Load or Integrated Part Load Value (IPLV). **Total incentive is capped at \$200/ton for all air-cooled chillers and water-cooled centrifugal chillers and \$175/ton for water-cooled positive displacement chillers.**

Eligible Equipment				Incentives		Application Center Equipment Guide						
Type	Unit Size - ARI Net Tons	Minimum Efficiency (Full Load and IPLV)		Base Unit Incentive	Performance Incentive*	Product Type	Category	Product				
Air-Cooled Chiller with Condenser	< 150 tons	Full Load	10.2 EER	\$24/ton	\$8/ton	Chillers	Air-Cooled	Air-Cooled Chiller				
		IPLV	14 EER									
	≥ 150 tons	Full Load	10.2 EER	\$24/ton	\$8/ton							
		IPLV	14.2 EER									
Water-Cooled Positive Displacement Chillers	< 75 tons	Full Load	0.74 kW/ton	\$15/ton	\$6/ton	Chillers	Electric, Water-Cooled	Water-Cooled Positive Displacement Chillers				
		IPLV	0.56 kW/ton									
	≥ 75 tons and < 150 tons	Full Load	0.71 kW/ton	\$15/ton	\$6/ton							
		IPLV	0.54 kW/ton									
	≥ 150 tons and < 300	Full Load	0.65 kW/ton	\$15/ton	\$6/ton							
		IPLV	0.52 kW/ton									
	≥ 300 tons and < 600 tons	Full Load	0.60 kW/ton	\$15/ton	\$6/ton							
		IPLV	0.50 kW/ton									
	≥ 600 tons and ≤ 1000 tons	Full Load	0.55 kW/ton	\$15/ton	\$6/ton							
		IPLV	0.48 kW/ton									
	Water-Cooled Centrifugal Chillers	< 150 tons	Full Load	0.60 kW/ton	\$20/ton				\$8/ton	Chillers	Electric, Water-Cooled	Water-Cooled Centrifugal Chillers
			IPLV	0.53 kW/ton								
≥ 150 tons and < 300 tons		Full Load	0.60 kW/ton	\$20/ton	\$8/ton							
		IPLV	0.53 kW/ton									
≥ 300 tons and < 400 tons		Full Load	0.55 kW/ton	\$20/ton	\$8/ton							
		IPLV	0.50 kW/ton									
≥ 400 tons and ≤ 1000 tons		Full Load	0.55 kW/ton	\$20/ton	\$8/ton							
		IPLV	0.48 kW/ton									

VIII. HVAC VFD CHILLER INCENTIVES

Eligible systems are air- and water-cooled water chilling packages, 1,000 tons and less, used in single chiller HVAC applications. Water-chilling equipment must meet the current Air Conditioning and Refrigeration Institute (ARI) standards 550/590, be UL listed, and use a minimum ozone-depleting refrigerant (e.g., HCFC or HFC). Chillers installed in multiple chiller systems and chillers serving a non-HVAC load greater than 25% of chiller capacity are not eligible under this application form, but customers using these systems may apply using the BGE Custom offering.

***Note: Performance Incentive: For each 0.1 EER point above or for each 0.01 kW below minimum efficiency Full Load or Integrated Part Load Value (IPLV). Total incentive is capped at \$200/ton for all air-cooled chillers and water-cooled centrifugal chillers and \$175/ton for water-cooled positive displacement chillers.**

Eligible Equipment				Incentives		Application Center Equipment Guide						
Type	Unit - ARI Net Tons	Minimum Efficiency (Full Load and IPLV)		Base Unit Incentive	Performance Incentive*	Product Type	Category	Product				
Air-Cooled Chiller with Condenser	< 150 tons	Full Load	9.8 EER	\$24/ton	\$8/ton	Chillers	Air-Cooled	Air-Cooled Chillers				
		IPLV	16 EER									
	≥ 150 tons	Full Load	9.8 EER	\$24/ton	\$8/ton							
		IPLV	16.3 EER									
Water-Cooled Positive Displacement Chillers	< 75 tons	Full Load	0.77 kW/ton	\$20/ton	\$10/ton	Chillers	Electric, Water-Cooled	Water-Cooled Positive Displacement Chillers				
		IPLV	0.48 kW/ton									
	≥ 75 tons and < 150 tons	Full Load	0.74 kW/ton	\$20/ton	\$10/ton							
		IPLV	0.47 kW/ton									
	≥ 150 tons and < 300 tons	Full Load	0.67 kW/ton	\$20/ton	\$10/ton							
		IPLV	0.42 kW/ton									
	≥ 300 tons and < 600 tons	Full Load	0.61 kW/ton	\$20/ton	\$10/ton							
		IPLV	0.38 kW/ton									
	≥ 600 and ≤ 1000 tons	Full Load	0.57 kW/ton	\$20/ton	\$10/ton							
		IPLV	0.36 kW/ton									
	Water-Cooled Centrifugal Chillers	< 150 tons	Full Load	0.68 kW/ton	\$25/ton				\$10/ton	Chillers	Electric, Water-Cooled	Water-Cooled Centrifugal Chillers
			IPLV	0.42 kW/ton								
≥ 150 and < 300 tons		Full Load	0.62 kW/ton	\$25/ton	\$10/ton							
		IPLV	0.38 kW/ton									
≥ 300 and < 400 tons		Full Load	0.58 kW/ton	\$25/ton	\$10/ton							
		IPLV	0.37 kW/ton									
≥ 400 and ≤ 1000 tons		Full Load	0.57 kW/ton	\$25/ton	\$10/ton							
		IPLV	0.36 kW/ton									

EmPOWER Maryland programs are funded by a charge on your energy bill. EmPOWER programs can help you reduce your energy consumption and save you money. To learn more about EmPOWER and how you can participate, go to BGESmartEnergy.com.