# 2022 HVAC Application



Consumers Energy
Business Energy Efficiency Programs



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#### **Resources**

Learn more about incentive caps and limits, pre-notifications, how to apply, terms and conditions and qualifying equipment specifications in our main Incentive Application and Catalog. This information can be found at: ConsumersEnergy.com/startsaving.

Need help? Call 877-607-0737

or Email: Consumers Energy Business Solutions @cmsenergy.com



Applicant Inform	ation			
Type of Application:	Retrofit Project	☐ New Construction	Consumers Energy Adviso	or (if known)
Who is the primary co	ontact? 🔲 Customer	☐ Technical Contact	Consumers Energy Account	Manager (if known)
·			☐ Technical Contact	
This is my: Pre-No	tification Application	Final Application	Revised Application PRO	JECT # CE-22
How did you hear abo	ut us?			
Radio	☐ Internet	Direct Mai		s Energy Account Manager
☐ TV ☐ Billboard	☐ Email ☐ Prior Particip	☐ Sporting E pant ☐ Contracto		visor
Customer Information	n (Required for All Appli	cations)		
Company Name (a	s it appears on Consu	mers Energy bill)		
Contact Name			Title	
Mailing Address				
City		State	ZIP	
Phone	Email			
We will use your email cand your projects.	address solely to provide	timely information abou	ut the Consumers Energy Busin	ness Energy Efficiency Programs
Consumers Energy Na	tural Gas Account Num	nber (at Project Locatio	n)	
Consumers Energy Ele	ctric Account Number (	at Project Location)		
Primary Business Ty Agriculture Auto Repair Biotech Convenience Store Grocery Data	Heavy Industria Light Industrial High School	☐ Motel☐ Large Office☐ Small Office	☐ Big Box Retail ☐ Small Retail ☐ Full Service Restaurar ☐ Quick Service Restaur ☐ Warehouse  y ☐ Other	Facility Size (Area)
Customer Tax Informa	ation (Required for All A	pplications)		
Tay Status**	ndividual/Sole propriet single-member LLC		☐ Partnership ☐ LLC En	
Tax ID Number: Plea EIN/Federal Tax ID	ase provide your EIN/F	ederal Tax ID below.	Exemptions Payee Code	FATCA Code
Project Information				
Project Name (if ap	olicable)			
Installation Address				
City		State	ZIP	
Estimated Completi	ion Date		Total Incentive Requested	
Technical Contact Infe	ormation (Trade Ally, Co	ontractor, Designer, etc.		
Company Name*			Consumers Energy Contracto	or ID (if known)
Contact Name			Title	
Mailing Address				
City	State	ZIP	Phone	Fax
Email		Rebate Pro	ocessor Name	

CE -

Date

Assigned

\* Company name as it appears on your W-9.

 $\ensuremath{^{**}}\xspace \ensuremath{\text{W-9}}$  must be provided for payee with application.

Final Application/Customer	Signature		
Measure Category	Category Total (Before)	Buy Michigan	
Variable Frequency Drives (VFD)			
Miscellaneous Electric			
HVAC Equipment			
Building Automation Systems			
Advanced Air Distribution and Energy Reco	overy		
Pipe and Ductwork Insulation			
Incentive Totals			
Measure Subtotal			
15% Buy Michigan Bonus			
Incentive Total			
Important: Please read the Terms and Condition requested. Checks will be made out to the name			
Incentive Requested			
Total Project Cost	Total Incentive Requested	Actual C	ompletion Date
Company Name (as it appears on Consumers Energy bill)		Project #	:
Customer Signature		Date	
Print Name		Title	
Upon signing, I am stating that I have read o	nd understand the Terms and Conditions s	et forth by this program.	
Third Party Payment Release			
Skip This Section If Rebate Check Will Be	Made Payable To Customer		
I authorize the payment of the incentive to the thir of the payment to a third party does not exempt in <b>Authorized By:</b>			
Customer Name	Signature		Date
Check should be made payable to:			
Individual/Company Name*			Phone
Mailing Address			
City	State		ZIP
<b>Tax Status**:</b> ☐ Individual/Sole single-member		- Greneramp —	nter Tax Classification
Tax ID Number Please provide your E	IN/Federal Tax ID below.	Exemptions	
EIN/Federal Tax ID			FATCA Code
Please note that this document will require re-so * Company name as it appears on your W-9. ** W-9 must be provided for payee with applicatio			

Print This Form

#### **HVAC Equipment**

HV101d

HV101e

#### Split and Unitary Air Conditioning Systems

(Consumers Energy Electric Customers)

ID	Equipment	Size Category	Qualifying Efficiency	Incentive	Unit
HV101a		< 5.4 tons	15.0 SEER	\$30.00	Ton
HV101b		≥ 5.4 to < 11.25 tons	12.0 EER/ 13.8 IEER	\$40.00	Ton
HV101c	Split Air Conditioning Systems	≥ 11.25 to < 20 tons	12.0 EER/ 13.0 IEER	\$40.00	Ton

10.6 EER/

12.1 IEER

10.2 EER

\$30.00

\$30.00

Ton

Ton

HV101i

HV101j

≥ 20 to

< 63 tons

> 63 tons

manufacturer affidavit. — qualifies New Construction.										
	ID	Equipment	Size Category	Qualifying Efficiency	Incentive	Unit				
	HV101f	Unitary Air Conditioning Systems (RTU's)	< 5.4 tons	15.0 SEER	\$30.00	Ton				
	HV101g		≥ 5.4 to < 11.25 tons	12.0 EER/ 13.8 IEER	\$40.00	Ton				
	HV101h		≥ 11.25 to < 20 tons	12.0 EER/ 13.0 IEER	\$40.00	Ton				
	HV101i		≥ 20 to	10.6 EER/	\$30.00	Ton				

< 63 tons

 $\geq$  63 tons

\$30.00

\$30.00

12.1 IEER

10.2 EER

Ton

Ton

Check the Buy Michigan Box only if the incentivized piece of equipment meets the Buy Michigan bonus specifications and we can verify the

Equipment (See Above)	Make and Model	SEER, EER	IEER	Unit Size (Tons) (A)	Quantity (B)	Incentive per Ton (C)	Total Incentive (AxBxC)

#### Computer Room Air Conditioning (Pre-Notification Required\*)

(Consumers Energy Electric Customers)

10	D	Equipment Type	Equipment Size	Min SCOP	Incentive Per MBH	Actual SCOP	Unit Size MBH	Quantity	Total Incentive
Н	IV102a	High-Efficiency	< 65 MBH	2.9					
Н		Computer Room	≥ 65 MBH to < 240 MBH	2.7	\$20.00				
Н	IV102c	Air Conditioning	≥ 240 MBH	2.5					

ID	Equipment Type	Return Air Temp	Incentive	Unit	Actual SCOP	Unit Size MBH	Quantity	Total Incentive
HV103a	Data Room Hot/Cold	Increased by at least 5°F	\$10.00	MBH				
HV103b	Aisle Configuration*	Increased by at least 10°F	\$20.00	МВН				

<sup>\*</sup>Pre-Notification is required.

#### **Air Conditioning**

(Consumers Energy Electric Customers)

ID		Equipment Type Size		Incentive	Unit	Unit Size Tons	Quantity	Total Incentive
HV	104a		< 7,000 BTU/hr. = 13.1 EER	\$50.00	Unit			
HV	104b	Packaged Terminal Air Conditioning (PTAC)	7,000 to 15,000 BTU/hr. = 11.8 EER	\$60.00	Unit			
HV	104c	Conditioning (FTAC)	> 15,000 Btu/hr. = 10.5 EER	\$70.00	Unit			
HV	105a		< 7000 BTU/hr. = 13.1 EER	\$30.00	Unit			
HV	105b	Packaged Terminal Heat Pump (PTHP)	7000 BTU/hr - 15000 BTU/hr. = 11.8 EER	\$35.00	Unit			
HV	105c	rieder dinip (r 11117)	> 15000 BTU/hr. = 10.5 EER	\$40.00	Unit			
HV	106	Ductless Air Conditioni	ng or Heat Pump System	\$50.00	Unit			

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#### **Ground Source Heat Pump**

(Consumers Energy Electric Customers)

ID	Equipment Type	Size	\$/ton 17 EER Base Incentive	\$/ton 0.1 EER Incentive	Quantity	Unit Size Tons	EER	Base Incentive	Incremental Incentive	Total Incentive
HV20	Ground Source Heat Pump	< 135 MBH (11.25 tons)	54000	\$1.00						

#### **Humidification (Pre-Notification Required)**

(Consumers Energy Electric Customers)

ID	Equipment Type Incentive		Unit	Number of Humidifier	Total Area Served	Total Incentive
HV202	Ultrasonic Humidifier	\$0.10	Square Foot			

#### **Chillers**

(Consumers Energy Electric Customers)

	Equipment			Path A - FL	/ Reduction	Path B - IP	LV Reduction	\$/Ton	\$/0.01
ID	Туре	Size	Unit	FLV (E)	IPLV	FLV	IPLV (H)	Base	Reduction
HV203a	Air-Cooled	< 150 ton	kW/ton	1.19	0.88	1.24	0.76	\$7.00	\$2.00
HV203b	Chillers	≥ 150 ton	kW/ton	1.19	0.86	1.24	0.75	\$7.00	\$2.00
HV204a		< 75 ton	kW/ton	0.75	0.6	0.78	0.5	\$10.00	\$2.00
HV204b	Water Cooled	≥ 75 ton and < 150 ton	kW/ton	0.72	0.56	0.75	0.49	\$10.00	\$2.00
HV204c	Positive Displacement	≥ 150 ton & < 300 ton	kW/ton	0.66	0.54	0.68	0.44	\$10.00	\$2.00
HV204d	(Screw) Chillers	≥ 300 ton & < 600 ton	kW/ton	0.61	0.52	0.63	0.41	\$10.00	\$2.00
HV204e		≥ 600 ton	kW/ton	0.56	0.5	0.59	0.38	\$10.00	\$2.00
HV205a		< 150 ton	kW/ton	0.61	0.55	0.7	0.44	\$10.00	\$2.00
HV205b	- Water Cooled	≥ 150 ton & < 300 ton	kW/ton	0.61	0.55	0.64	0.4	\$10.00	\$2.00
HV205c	Centrifugal	≥ 300 ton & < 400 ton	kW/ton	0.56	0.52	0.6	0.39	\$10.00	\$2.00
HV205d	Chillers	≥ 400 ton & < 600 ton	kW/ton	0.56	0.5	0.59	0.38	\$10.00	\$2.00
HV205e		≥ 600 ton	kW/ton	0.56	0.5	0.59	0.38	\$10.00	\$2.00

Equipment Type	Made and Model	Size (tons) (A)	FLV (B)	IPLV (C)	# of chillers	Path	\$/Ton (F)	\$/0.01 Reduction (G)	Base Incentive	Incremental Incentive	Incentive
HV201a	Air Cooled Reciprocating Chiller	100	1.15	0.75	1	Path A	\$7.00	\$2.00	\$700.00	\$800.00	\$1,500.00
Total Incont											

#### **Total Incentive**

Total incentive per ton equals the qualifying base incentive per ton plus the maximum incentive per efficiency increase. The incentive per efficiency increase can be calculated as a maximum incentive between Path A or Path B.

For example: One 100-ton air-cooled chiller at 0.75 kW/ton IPLV and 1.15 kW/ton FLV:

Base incentive:  $(A \times D \times F)$  or 100 tons  $\times 1 \times \$7/ton = \$700$ 

**Path A:** Full load incentive:  $(A \times D \times [(E - B)/0.01] \times G)$  or  $(100 \text{ tons } \times 1 \times [(1.19 - 1.15)/0.01] \times $2.00 = $800$ **Path B:** Part load incentive:  $(A \times D \times [(H - C)/0.01] \times G)$  or  $(100 \text{ tons } \times 1 \times [(0.76 - 0.75)/0.01] \times $2.00 = $200$ 

**Total incentive:** \$700 + Maximum (\$200, \$800) = \$900 or \$1,500

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#### **Industrial Fans (Pre-Notification Required)**

ID	Equipment Type	Incentive	Unit	# of Units	Total Incentive	***
HV301	High-Volume, Low-Speed Fan (Consumers Energy Electric Customers)	\$400.00	Fan			
HV302	Destratification Fan (Temperature Gradient Greater than 15°F) (Consumers Energy Natural Gas Customers)	\$0.20	Square Foot			

#### Heating

(Consumers Energy Natural Gas Customers, unless otherwise stated)

ID	Hydronic Boiler*	Incentive	Input Unit	Quantity	Unit Size	Total Incentive	*
HV303	HVAC Boiler 88% to 89.9% Efficiency - Level 1	\$1.50	МВН				
HV304	HVAC Boiler at least 90% Efficiency - Level 2	\$2.00	МВН				
ID	Steam or Process Boilers*	Incentive	Input Unit	Quantity	Unit Size	Total Incentive	
HV305	Process Steam Boilers (at Least 82% Efficient)	\$1.25	МВН				
HV306	HVAC Steam Boilers (at Least 82% Efficient)	\$2.00	МВН				
HV307	Process Hydronic (Water) Boilers (at Least 82% Efficient)	\$1.20	МВН				
HV308	High-Efficiency Pool Water Heater (at Least 84% Efficient)	\$2.00	МВН				
*Type of	efficiency varies between AFUE, thermal or combustion based upon bo	iler size. Refer	ence the progr	am catalog fo	or additional o	details.	
ID	Unit Heater Type/AHU Type	Incentive	Input Unit	Quantity	Unit Size	Total Incentive	*

ID	Unit Heater Type/AHU Type	Incentive	Input Unit	Quantity	Unit Size	Total Incentive	***
HV309	High-Efficiency Unit Heater (at Least 92% Efficient)	\$3.99	МВН				
HV310	High-Efficiency Unit Heater (at Least 95% Efficient)	\$7.91	МВН				
HV311	Direct Fired Makeup Air Handling Units	\$1.50	МВН				

ID	Condensing RTU	Incentive	Input Unit	Quantity	Unit Size	Total Incentive	7	Ì
HV312	Condensing Rooftop Unit	\$25.00	МВН					]

ID	Infrared Heater Type (Pre-Notification Required)	Incentive	Input Unit	Quantity	Unit Size	Total Incentive	**
HV313	Infrared Heaters (Consumers Energy Electric and Natural Gas Customers)	\$9.00	МВН				
HV314	Infrared Heaters (Consumers Energy Natural Gas Customers)	\$5.00	МВН				

ID	Furnaces	Incentive	Unit	Quantity	Unit Size (MBH)	Total Incentive	*
HV315	High Efficiency Furnace ≤ 120 MBH, 92% AFUE	\$300.00	Furnace				
HV316	High Efficiency Furnace > 120 MBH, 92% AFUE	\$350.00	Furnace				
HV317	High Efficiency Furnace ≤ 120 MBH, 95% AFUE	\$325.00	Furnace				
HV318	High Efficiency Furnace > 120 MBH, 95% AFUE	\$400.00	Furnace				

Subtotal HVAC Equipment Incentive - Page 3

#### **HVAC Equipment**

Check the Buy Michigan Box only if the incentivized piece of equipment meets the Buy Michigan bonus specifications and we can verify the manufacturer affidavit. qualifies New Construction.

#### Heating

(Consumers Energy Natural Gas Customers, unless otherwise stated)

CONSUM	ers Energy Natural Gas Customers, unles	33 Oct for Wise Stated)						
ID	Domestic Water Heating		Incentive	Input Unit	Unit Size (MBH)	Quantity	Total Incentive	*
HV401	High-Efficiency Domestic Water Heat (at least 94% Thermal Efficiency)	ing Boilers	\$1.50	МВН				
HV402a	High-Efficiency Tank-Style Domestic	≤ 75 MBH, ≥ 0.64 UEF	\$60.00	Heater				
HV402b	Water Heater < 55 Gallons	≤ 75 MBH, ≥ 0.68 UEF	\$150.00	Heater				
HV402c	High-Efficiency Tank-Style Domestic V ≥ 55 Gallons, ≤ 75 MBH, ≥ 0.80 UEF	Vater Heater	\$50.00	Heater				
HV403	High-Efficiency Tank-Style Domestic V ≤140 Gallon, >75 MBH,94% Thermal		\$275.00	Heater				
HV404a		Natural Gas, ≥ 0.87 UEF	\$150.00	Heater				
HV404b	Tankless Water Heater	Electric, ≥ 0.95 UEF (Consumers Energy Electric Customers)	\$50.00	Heater				
	tal HVAC Equipment Incentiv	e - Page 4						

#### Miscellaneous Electric

#### Miscellaneous

(Consumers Energy Electric Customers)

ID	Measure	Incentive	Unit	# of Units	Total Incentive
ME108	Cogged V-Belt Drives (1 to 25 HP)	\$5.00	HP		
ME109	Cogged V-Belt Drives (26 to 500 HP)	\$2.50	HD		

Total Miscellaneous Electric Incentive	

#### Centralized Building Automation System (BAS) (Pre-Notification Required)

ID	Measure		Incentive	Unit	# of Units	Total Incentive		
BA101a	Web-Based Building Automation	Air Conditioning (Consumers Energy Electric Customers)	\$0.15	Square Foot				
BA101b	Systems (BAS) (Temperature Setback in Non-occupied Periods)	BAS Non-A/C Schools (Consumers Energy Electric Customers)	\$0.15	Square Foot				
Building	g Automation System Total Inc	centive						
Building	g Automation System Awarde	d Incentive (Maximum Cannot Exceed \$75,000)						
BA102	Light Commercial Building Automation Systems (BAS) (Temperature Setback in Non- occupied Periods)	Air Conditioning (Consumers Energy Electric Customers)	\$0.15	Square Foot				
Building	Automation System Total Inc	entive						
Building	g Automation System Awarded	I Incentive (Maximum Cannot Exceed \$35,000)						
BA103a		Air Conditioning and Natural Gas Heat (Consumers Energy Electric & Natural Gas Customers)	\$0.30	Square Foot				
BA103b	Optimal Start on Air Handling Units	Natural Gas Heat (Consumers Energy Natural Gas Customers)	\$0.05	Square Foot				
BA103c		Air Conditioning (Consumers Energy Electric Customers)	\$0.07	Square Foot				
Optimo	Optimal Start Total Incentive							
Optimo	al Start Awarded Incentive (Ma	aximum Cannot Exceed \$50,000)						

ID	Measure (Pre-Notification Required)	Incentive	Unit	# of Units	Total Incentive
BA104	BAS for Manufacturing HVAC Fans (Consumers Energy Electric Customers)	\$150.00	HP		
BA105	Parking Garage Exhaust Fan Carbon Monoxide (CO) Control (Consumers Energy Electric Customers)	\$300.00	HP		
BA106	Hydronic HVAC Pump Control (Consumers Energy Electric Customers)	\$80.00	HP		
BA107	Critical Zone Supply Air Reset Control (Consumers Energy Electric Customers)	\$25.00	Ton		
BA108	Air-Side Economizer (Consumers Energy Electric Customers)	\$15.00	Ton		
BA109a	Chilled Water Reset Retrofit (5-degree reset) (Consumers Energy Electric Customers)	\$15.00	Ton		
BA109b	Chilled Water Reset Retrofit (10-degree reset) (Consumers Energy Electric Customers)	\$30.00	Ton		
BA110	Optimized Chiller Plant Sequencing	\$4.00	Ton		

#### Advanced Rooftop HVAC Controls (Pre-Notification Required)

ID	Measure		Incentive	Unit	Quantity	Total Incentive
BA111a	Enhanced	Air Conditioning and Natural Gas Heat (Consumers Energy Electric and Natural Gas Customers)	\$330.00	Ton		
BA111b	Ventilation Control	Natural Gas Heat (Consumers Energy Natural Gas Customers)	\$170.00	Ton		
BA111c		Air Conditioning (Consumers Energy Electric Customers)	\$80.00	Ton		

#### **Unitary Control (Pre-Notification Required)**

The state of the s								
ID	Measures		Area (FT²)	Incentive	Unit	# of Units	Total Incentive	**
BA201a	Hotel Guest Room	Natural Gas Heat (Consumers Energy Natural Gas Customers)		\$80.00	Room Controlled			
BA201b	Occupancy Sensor	Electric Heat (Consumers Energy Electric Customers)		\$80.00	Room Controlled			
BA202a		Air Conditioning and Natural Gas Heat (Consumers Energy Electric and Natural Gas Customers)		\$48.00	Thermostat			
BA202b	Programmable Thermostat	Natural Gas Heat (Consumers Energy Natural Gas Customers)		\$40.00	Thermostat			
BA202c		Air Conditioning (Consumers Energy Electric Customers)		\$8.00	Thermostat			
BA203a	Occupancy	Air Conditioning and Natural Gas Heat (Consumers Energy Electric and Natural Gas Customers)		\$0.04	Square Foot			
BA203b	Sensor Control for Smart Thermostats	Natural Gas Heat (Consumers Energy Natural Gas customers)		\$0.02	Square Foot			
BA203c	memostats	Air Conditioning (Consumers Energy Electric Customers)		\$0.02	Square Foot			

#### **Ventilation Controls (Pre-Notification Required)**

ID	Measures		Incentive	Unit	# of Units	Total Incentive	***
BA204a		Air Conditioning and Natural Gas Heat (Consumers Energy Electric and Natural Gas Customers)	\$0.50	Square Foot			
BA204b	Demand Control Ventilation	Natural Gas Heat (Consumers Energy Natural Gas Customers)	\$0.25	Square Foot			
BA204c		Air Conditioning (Consumers Energy Electric Customers)	\$0.03	Square Foot			
BA205a		Air Conditioning and Natural Gas Heat (Consumers Energy Electric and Natural Gas Customers)	\$0.08	Square Foot			
BA205b	Occupancy Sensor Control for HVAC BAS Systems	Natural Gas Heat (Consumers Energy Natural Gas Customers)	\$0.04	Square Foot			
BA205c	DAS SYSTEMS	Air Conditioning (Consumers Energy Electric Customers)	\$0.04	Square Foot			
BA206a	- Demand Control	Air Conditioning and Natural Gas Heat (Consumers Energy Electric and Natural Gas Customers)	\$0.40	Square Foot			
BA206b	Ventilation and Occupancy Sensors	Natural Gas Heat (Consumers Energy Natural Gas Customers)	\$0.15	Square Foot			
BA206c	for HVAC	Air Conditioning (Consumers Energy Electric Customers)	\$0.04	Square Foot			
BA207	Occupancy Sensor Co	ntrolled Restroom Exhaust Fan (Electric Only)	\$10.00	Fan			

#### **Building Automation Systems**

Check the Buy Michigan Box only if the incentivized piece of equipment meets the Buy Michigan bonus specifications and we can verify the manufacturer affidavit. qualifies New Construction.

#### **Boiler Controls (Pre-Notification Required)**

(Consumers Energy Natural Gas Customers)

	and Energy reaction and Substitution									
ID	Measure		Incentive	Input Unit	# of Units	Total Incentive	**			
BA301a		HVAC	\$0.40	MDII			]			
BA301b	Optimized Boiler Plant Sequencing	Process	\$1.00	MBH						
BA302a		HVAC	\$0.80	MDII						
BA302b	Modulating Burner Control*	Process	\$1.25	MBH						
BA303a		HVAC	\$0.20	MDLI						
BA303b	Boiler Oxygen Trim Control*	Process	\$0.75	MBH						
BA304a		HVAC	\$0.50	MDII						
BA304b	Linkageless (Parallel Positioning) Boiler Controls*	Process	\$0.75	MBH						
BA305a	Combination Boiler Oxygen Trim Control and	HVAC	\$0.60	MDII						
BA305b		Process	\$1.00	MBH						
BA306	Water Reset Control Retrofit		\$0.70	МВН						
BA307	7 Basic Snow Melt Controls Retrofit		\$0.50	Square Foot						
BA308	Enhanced Snow Melt Controls		\$0.60	Square Foot						

<sup>\*</sup> Not eligible on new condensing boilers

#### Makeup Air Handling Unit Burner Controls (Pre-Notification Required)

(Consumers Energy Natural Gas Customers)

ID	Measure	Incentive	Input Unit	# of Units	Total Incentive
BA309a	Modulating Burner on Makeup Air Handling Unit (Continuous Operation)	\$5.00	МВН		
BA309b	Modulating Burner on Makeup Air Handling Unit (> 100 hrs./week Operation)	\$5.00	МВН		
ВА309с	Modulating Burner on Makeup Air Handling Unit (> 50 hrs./week Operation)	\$1.00	МВН		

Subtotal Building Automation Controls Incentive - Page 3

**Total Building Automation Controls Incentive** 



#### Advanced Air Distribution and Energy Recovery Check the Buy Michigan Box 3 only if the incentivized piece of equipment

Check the Buy Michigan Box only if the incentivized piece of equipment meets the Buy Michigan bonus specifications and we can verify the manufacturer affidavit. qualifies New Construction.

#### Advanced Air Distribution Systems (Pre-Notification Required)

ID	Measure	Customer Type	Incentive	Unit	# of Units	Total Incentive	***
AE101a	- Constant Volume AHU to VAV AHU with Hydronic Reheat	Electric and Natural Gas	\$1.25	Square Foot			
AE101b		Electric	\$0.60	Square Foot			
AE101c		Natural Gas	\$0.25	Square Foot			
AE102a	Constant Volume AHU to Hydronic Heat Pump Loop	Electric and Natural Gas	\$0.60	Square Foot			
AE102b		Electric	\$0.45	Square Foot			
AE102c		Natural Gas	\$0.15	Square Foot			

#### **Energy Recovery (Pre-Notification Required)**

(Consumers Energy Natural Gas Customers)

ID	Measure	Incentive	Unit	# of Units	Unit Size	Total Incentive	*
AE103	Enthalpy Wheel Energy Recovery Unit	\$0.40	CFM				
AE104	Fixed-Plate Air-to-Air Energy Recovery Unit	\$0.35	CFM				
AE105	Dust Collector Air Exhaust Recovery Unit	\$1.50	CFM				

#### **Boiler Efficiency Improvements (Pre-Notification Required)**

(Consumers Energy Natural Gas Customers)

(0011001111	ers Energy Hacarar Gas Casconners,							_
ID	Measure	Stack Temp Decrease	Incentive	Input Unit	# of Units	Unit Size	Total Incentive	***
AE106a		80 Degrees	\$0.50	МВН				
AE106b	HVAC Boiler Stack Economizer	200 Degrees	\$1.00	МВН				
AE107a		80 Degrees	\$1.50	МВН				
AE107b	Process Boiler Stack Economizer	200 Degrees	\$3.00	МВН				
AE108	Steam Boiler Makeup Water Pre-Heat		\$10.00	MMBtu/yr.				
AE109	Automatic Boiler Blowdown Reduction		\$0.02	Gal./yr. Reduced				

#### Refrigeration Waste Heat Recovery (Pre-Notification Required)

(Consumers Energy Natural Gas Customers)

ID	Measure	Incentive	Unit	# of Units	Unit Size	Total Incentive
AE110	Refrigeration Waste Heat Recovery Decreasing Domestic Water Heating	\$200.00	Ton			
AE111	Refrigeration Waste Heat Recovery Decreasing HVAC Heating Load	\$125.00	Ton			

Subtotal Advanced Air Distribution and Energy Recovery Incentive - Page 1



#### Advanced Air Distribution and Energy Recovery Check the Buy Michigan Box 3 only if the incentivized piece of equipment

Check the Buy Michigan Box only if the incentivized piece of equipment meets the Buy Michigan bonus specifications and we can verify the manufacturer affidavit. qualifies New Construction.

#### Air-Side Economizer (Pre-Notification Required)

(Consumers Energy Electric Customers)

ID	Equipment Type	Incentive	Unit	# of Units	Total Incentive
AE201	Computer Room Air Conditioning Glycol Economizer	\$60.00	MBH		
AE202	Air-Side Economizer for CRAC or Telecom Applications	\$60.00	MBH		
AE203	Air-Side, Air to Air Heat Exchange Economizer for CRAC or Telecom Application	\$30.00	МВН		

#### Water-Side Economizer (Pre-Notification Required)

(Consumers Energy Electric Customers)

ID	Equipment Type	Incentive	Unit	# of Units	Total Incentive
AE204	Water-Cooled Chiller	\$60.00	Ton		
AE205	Air-Cooled Chiller	\$150.00	Ton		

#### Condenser Heat Recovery (DX Compressor Waste Heat Recovery) (Pre-Notification Required)

ID	Measure	Customer Type	Incentive	Unit	# of Units	Total Incentive
AE206	Water-Cooled Condenser Electric DWH HVAC or Process Applications	Consumers Energy Electric Customer	\$400.00	Ton		
AE207	Air-Cooled Condenser Electric DWH HVAC or Process Applications	Consumers Energy Electric Customer	\$500.00	Ton		
AE208	Water-Cooled Condenser Natural Gas DWH HVAC or Process Applications	Consumers Energy Natural Gas Customer	\$150.00	Ton		
AE209	Air-Cooled Condenser Natural Gas DWH HVAC or Process Applications	Consumers Energy Natural Gas Customer	\$200.00	Ton		

### Operating Room Air Exchange Rate Setback (Pre-Notification Required)

ID	Measure	Customer Type	Incentive	Unit	# of Units	Total Incentive
AE210a		Consumers Energy Natural Gas and Electric Customer	\$2.00	Square Foot		
AE210b	Operating Room with at least 20% Outside Air	Consumers Energy Natural Gas Customer	\$1.00	Square Foot		
AE210c		Consumers Energy Electric Customer	\$1.00	Square Foot		
AE211a		Consumers Energy Natural Gas and Electric Customer	\$3.00	Square Foot		
AE211b	Operating Room with 100% Outside Air	Consumers Energy Natural Gas Customer	\$1.50	Square Foot		
AE211c		Consumers Energy Electric Customer	\$1.50	Square Foot		

Subtotal Advanced Air Distribution and Energy Recovery Incentive - Page 2

Total Advanced Air Distribution and Energy Recovery



#### HVAC Variable Frequency Drives (\*Pre-Notification Required for motors over 100 HP)

(Consumers Energy Electric Customers)

ID	Measure	Incentive (A)	Unit (B)
VF101	VFD on HVAC Supply Fan up to 100 HP**	\$70.00	HP
VF102	VFD on HVAC Return Fan up to 100 HP**	\$70.00	HP
VF103	VFD on Cooling Tower Fan**	\$40.00	HP
VF104	VFD on HVAC Chilled Water Pump up to 100 HP**	\$60.00	HP
VF105	VFD on HVAC Hydronic Heating Water Pump up to 100 HP**	\$100.00	HP
VF106	VFD on HVAC Fans - Fixed Speed (54 Hz or less)*	\$50.00	HP
VF107	VFD on CW HVAC Pumps - Fixed Speed (54 Hz or less) Bypass*	\$40.00	HP
VF108	VFD on CW HVAC Pumps - Fixed Speed (54 Hz or less) Throttled*	\$25.00	HP
VF109	VFD on HW HVAC Pumps - Fixed Speed (54 Hz or less) Bypass*	\$70.00	HP
VF110	VFD for HW HVAC Pumps - Fixed Speed (54 Hz or less) Throttled*	\$40.00	HP
VF111	2 Speed RTU Supply Fan	\$20.00	Ton
VF112	VFD on Condenser Fan - HVAC	\$50.00	Ton of Load

VFD Application (See Above)	Installation Type (i)	Control Before VSD (ii)	Control Variable (iii)	Incentive Rate (See above) (A)	Controlled Motor Size (HP) (B)	Quantity (C)	Incentive (A x B x C)	***

#### VFD Installation Type (I)

Code	Description	Code	Description
SFA	HVAC Supply Air Fan CDW		Condenser Water Pump
RFA	HVAC Return Air Fan	CW	Chilled Water Pump
BEF	Building Exhaust Fan	WSP	Domestic Water Pump
MAF	Make-up Air Fan	FWP	Boiler Feed Water Pump
CTF	Cooling Tower Fan	HW	Hydronic HVAC Pump
BDF	HVAC Boiler Draft Fan	PP	Pool Pump
FM	Other Fan (Specify):	РМ	Other Pump (Specify):

#### Control Before VFD (II)

Code	Description
DD	Discharge Damper
IGV	Inlet Guide Vanes
OCV	Outlet Control/ Throttle Valve
BV	Bypass
ONF	ON/OFF
MISC	Other (Specify):

#### Control Variable (III)

Code	Description
Temp	Temperature
Р	Pressure
Flow	Volume Flow Rate
Misc	Variable Input

Subtotal VFD Incentive - Page 1

<sup>\*</sup>Pre-Notification required for motors over 100 HP (or Process Pumps or Fans greater than 50 HP). Please fill out the Variable Frequency Drive Worksheet in the Catalog Appendix.

<sup>\*\*</sup> Measure may be eligible for New Construction applications if fan HP < 10HP or pump HP < 50HP.

## Process Variable Frequency Drives (Up to 250 HP) (\*Pre-Notification Required for Motors over 50 HP)

(Consumers Energy Electric Customers)

ID	Measure	Incentive (A)	Unit (B)
VF201	VFD on Process Pump up to 50 HP	\$125.00	HP
VF202	VFD on Process Pump 51 HP to 250 HP*	\$75.00	HP
VF203	VFD on Process Fan up to 50 HP	\$100.00	HP
VF204	VFD on Process Fan 51 HP to 250 HP*	\$50.00	HP
VF205	VFD on Process Fan - Fixed Speed (54 Hz or less)*	\$75.00	HP
VF206	VFD on Process Pump - Fixed Speed (54 Hz or less)*	\$100.00	HP
VF207	VFD on Computer Room Air Condition (CRAC) Unit	\$150.00	HP
VF208	VFD on Open Loop Pumping Systems up to 100 HP	\$40.00	HP
VF209	VFD on Condenser Fan - Med Temp Refrigeration (33 to 50°F)	\$100.00	HP
VF210	VFD on Condenser Fan - Low Temp Refrigeration (Below 32°F)	\$120.00	HP
VF211	VFD on Pool Circulation Pump - up to 50 HP	\$200.00	HP
VF212	VFD on Process Cooling Tower Fan	\$40.00	HP
VF213	VSD for Industrial Vacuum Pump Systems	\$20.00	HP

<sup>\*</sup>Pre-Notification required for motors over 100 HP (or Process Pumps or Fans greater than 50 HP). Please fill out the Variable Frequency Drive Worksheet in the Catalog Appendix.

VFD Application (See Above)	Installation Type (i)	Control Before VFD (ii)	Control Variable (iii)	Incentive Rate (See above) (A)	Controlled Motor Size (HP) (B)	Quantity (C)	Incentive (A x B x C)	***

#### VFD Installation Type (I)

Code	Description	Code	Description
SFA	HVAC Supply Air Fan CDW		Condenser Water Pump
RFA	HVAC Return Air Fan	CW	Chilled Water Pump
BEF	Building Exhaust Fan		Domestic Water Pump
MAF	Make-up Air Fan	FWP	Boiler Feed Water Pump
CTF	Cooling Tower Fan	HW	Hydronic HVAC Pump
BDF	HVAC Boiler Draft Fan	PP	Pool Pump
FM	Other Fan (Specify):	РМ	Other Pump (Specify):

#### Control Before VFD (II)

Code	Description		
DD	Discharge Damper		
IGV	Inlet Guide Vanes		
OCV	Outlet Control/ Throttle Valve		
BV	Bypass		
ONF	ON/OFF		
MISC	Other (Specify):		

#### **Control Variable (III)**

Code	Description
Temp	Temperature
Р	Pressure
Flow	Volume Flow Rate
Misc	Variable Input

Subtotal VFD Incentive - Page 2

#### Integrated Variable Speed Motor (ECM) for Fans

(Consumers Energy Electric Customers)

ID	Measure	Incentive (A)	Unit	# of HP per Motor (B)	# of Motors (C)	Total Incentive (A x B x C)
VF301	Integrated Variable Speed Motor (ECM) for Furnaces, UVs, FCs and Light Duty AHUs (up to 7.5 HP)	\$100.00	HP			
VF302	Integrated Variable Speed Motor (ECM) for Exterior Condenser Fans	\$30.00	HP			

#### Integrated Variable Speed Motor (ECM) for Pumps

(Consumers Energy Electric Customers)

ID	Measure		Incentive	Unit	# of Watts	# of Motors	Total Incentive
VF303a		< 500w	\$100.00	EC Motors			
VF303b	ECM on Domestic Hot Water	500w to 1,000w	\$250.00	EC Motors			
VF303c	Recirculation	> 1,000w	\$500.00	EC Motors			
VF304a		< 500w	\$50.00	EC Motors			
VF304b	ECM on Hydronic Heating	500w to 1,000w	\$150.00	EC Motors			
VF304c	-	> 1,000w	\$450.00	EC Motors			
VF305a	ECM on Chilled Water	< 500w	\$25.00	EC Motors			
VF305b		500w to 1,000w	\$100.00	EC Motors			
VF305c	Circulation	> 1,000w	\$200.00	EC Motors			

1HP = 745.7 watts; example: a  $^{1}/_{16}$  HP motor is 46.6 watts.

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**Total VFD Incentive** 

#### Pipe Insulation - Natural Gas Heat (Pre-Notification Required)

For HVAC and Domestic Applications, limit of 500 linear feet per boiler system. (Consumers Energy Natural Gas Customers)

ID	Measure	Measure		Unit	# of Units	Total Incentive	*
IN101	Steam Space Heating (HVAC)		\$6.00	Linear Foot			
IN102	Steam Condensate S	pace Heating (HVAC)	\$3.00	Linear Foot			
IN103	Hydronic Space Heat	ring (HVAC)	\$4.00	Linear Foot			
IN104a		Unconditioned Space	\$2.00	Linear Foot			
IN104b	Domestic Hot Water	Conditioned Space	\$1.00	Linear Foot			
IN105a		Conditioned Space (Consumers Energy Electric and Natural Gas Customers)	\$3.00	Linear Foot			
IN105b	Process Steam Pipe Insulation	Conditioned Space (Not A/C and Consumers Energy Natural Gas Customers)	\$2.00	Linear Foot			
IN105c		Unconditioned Space (Consumers Energy Natural Gas Customers)	\$3.00	Linear Foot			
IN106a	Process Steam Pipe	Unconditioned Space (Consumers Energy Natural Gas Customers)	\$3.00	Linear Foot			
IN106b	Condensate Insulation	Conditioned Space (Not A/C and Consumers Energy Natural Gas Customers)	\$1.00	Linear Foot			

#### PEX Pipe Insulation (Pre-Notification Required) (Consumers Energy Natural Gas Customers)

ID	Measure		Incentive	Unit	# of Units	Total Incentive	*
IN107	Domestic Hot Water	Unconditioned Space	\$2.00	Linear Foot			
IN108	Hydronic Space Heating	Unconditioned Space	\$3.00	Linear Foot			
IN109	Domestic Hot Water	Conditioned Space	\$1.00	Linear Foot			

#### Pipe Insulation - Electric (Pre-Notification Required) (Consumers Energy Electric Customers)

ID	Electric Heat		Incentive	Unit	# of Units	Total Incentive	*
IN110c	Domestic Hot Water	Unconditioned Space	\$1.00	Linear Foot			
IN110b		Conditioned Space	\$0.50	Linear Foot			

ID	DX Suction Refrigerant Piping Insulation Location	Space Type	Incentive	Unit	# of Units	Total Incentive	**
IN111	Data Center	Conditioned Space	\$0.20	Linear Foot			
IN112a	NUT . D.C.	Conditioned Space	\$0.75	Linear Foot			
IN112b	Mid Temperature Refrigeration	Non-Conditioned Space	\$0.50	Linear Foot			
IN113	Low Temperature Refrigeration	Either Conditioned Space or Non-Conditioned Space	\$3.00	Linear Foot			

#### **Ductwork Insulation - Natural Gas Heat (Pre-Notification Required)**

(Consumers Energy Natural Gas Customers only)

ID	Ductwork	Location	Air Distribution Type	Incentive	Unit	# of Units	Total Incentive	*
IN114		Non-Conditioned Space	Supply Air	\$2.00	Square Foot			
IN115		i.e., crawl space	Return Air	\$3.00	Square Foot			
IN116	Ductwork Insulation	F	Supply Air	\$3.00	Square Foot			
IN117		Exterior Space	Return Air	\$3.00	Square Foot			



877-607-0737

 ${\bf Consumers Energy Business Solutions@cmsenergy.com}$