

2012 IOWA

MOTORS & VARIABLE-SPEED DRIVES PROGRAM

Adding flexibility to your production process can make a big difference in operational efficiency.



save
some
green®

If your system doesn't always run at the same speed, neither should your motors. MidAmerican Energy Company's EnergyAdvantage[®] Motors & Variable-Speed Drives program offers our commercial and industrial customers in Iowa incentives for the installation of energy-efficient motors and/or variable-speed drive equipment.

There are simple dollars-and-cents reasons to utilize the Motors & Variable-Speed Drives program. Adding a variable-speed drive to an efficient motor in an appropriate application saves even more energy because the motor then consumes less energy when load requirements are less than full speed. Qualifying equipment is eligible for cash rebates.

Updated Federal Standards

Motor manufacturers have been building general purpose motors to efficiency standards by horsepower and by type, open or closed in the 1 to 200 HP range, since the Energy Policy Act of 1992, enacted in 1997. Due to demands for more efficient motors with technological improvements, motor manufacturers have been building motors with efficiencies higher than EPA 1992 standards. In 2002, the National Electrical Manufacturers Association established efficiencies for more efficient motors and branded the NEMA Premium[®] designation. The Energy Independence and Security Act of 2007 established the present NEMA Premium efficiency levels from NEMA MG-1, Table 12-12 as the minimum efficiency standard for 1 to 200 HP motors, effective Dec. 19, 2010. For 1 to 200 HP motors, manufacturers will no longer be allowed to manufacture or import motors of less efficiency in this category. To date, the Consortium for Energy Efficiency has identified 437 motors with efficiencies of at least one band above the current NEMA Premium efficiency level. According to EISA, explosion proof/severe duty motors must conform to current NEMA MG-1 Table 12 -12 minimum efficiencies. MidAmerican Energy offers rebates for explosion proof/severe duty and 437 motors identified by CEE. There are gaps in product offerings from manufacturers as some are not commercially available at this time. Not all motor manufacturers have submitted available products to the



CEE list. Consult with your motor distributor to verify if their motors meet the minimum efficiencies listed on the attached motor incentive table.

Why Should You Install a Variable-Speed Drive?

Commercial and industrial energy customers should consider installing variable-speed drive equipment if the motors are utilized for increased operating hours and have a higher variability of loads on the system (centrifugal pumps and fans) or the application of use includes mechanical throttling (valves, dampers, etc.). Variable-speed drives match the speed of the motor-driven equipment to the process requirement. Applications with low variability of loads such as vibrating conveyors, punch presses, rock crushers, machine tools and other applications where the motor runs at a constant speed are not good candidates for variable-speed drives.

The variable-speed drive incentive is \$50 per horsepower of the motor driven or 70 percent of the installed cost, whichever is less. The minimum variable-speed drive size is 1 horsepower.

When Should a Motor Be Replaced?

Because electricity accounts for 97 percent of a motor's lifetime costs, choosing an efficient motor is appropriate before a motor fails, when a motor fails and for new installations. Other reasons for considering replacing motors are loading factors and age. Premium motors are generally most efficient at a loading factor of 75 percent. Motors operating above or below this loading factor may be candidates for resizing. Older units having high operating hours or which have been rewound also can be considered for replacement.

Qualifying motor incentives can be referenced on the tables on the back page. Motors greater than 200 HP and others not listed in the table can be reviewed for incentive eligibility through MidAmerican Energy's EnergyAdvantage Custom Systems program.

Call **800-894-9599** today.



For additional resources regarding motor systems management, life cycle costing and return on investment, visit www.motorsmatter.org.



For detailed motor efficiency information, visit www.nema.org/gov/energy/efficiency/premium.



For pumping system improvements, visit www.pumpsystemsmatter.org.

A free guidebook on motors and variable-speed drives is available from the Consortium for Energy Efficiency at www.cee1.org/ind/motrs/CEEMotorGuidebook.pdf.

Consider These Benefits

Motor systems improvements generally can:

- Reduce energy costs
- Improve plant efficiency and load factor
- Minimize unscheduled downtime
- Reduce maintenance costs

The minimum annual operating hours required for both motors and drives to qualify for incentives is 3,000 out of a possible 8,760 hours.

How to Participate

1. For motors, refer to the Incentives Available table for amounts.
2. Installer completes Equipment Information and Motor/Drive Information sections.
3. Customer completes Customer Information, Customer Agreement and Operating Information and submits form, along with a copy of the specification sheets, dated invoice, including manufacturer's name, model and serial number, installed date, and quantity of energy-efficient equipment purchased and installed to:

MidAmerican Energy Company
EnergyAdvantage Programs
P.O. Box 4628
Des Moines, IA 50305-4628

or fax to 515-244-8825

Once equipment is installed and operating, and your application is reviewed and approved by MidAmerican Energy, your incentive check will be issued. Allow four to six weeks for processing.

Questions?

Call MidAmerican Energy at 800-894-9599 with questions about the program or to check the status of an incentive.

TERMS AND CONDITIONS

- Participants must be MidAmerican Energy Company commercial or industrial customers located in Iowa. Primary energy required by qualifying measure must be purchased directly from MidAmerican Energy Company.
- Incentives exceeding \$10,000 require preapproval by MidAmerican Energy Company. Projects must be completed within six months of preapproval.
- Installations must meet the Institute of Electrical and Electronic Engineers' IEEE 519, current ANSI standard.
- MidAmerican Energy Company may require verification of sales receipts and canceled checks as well as on-site verification of the installation prior to or after issuance of the incentive check.
- Applications must be submitted within three months of equipment installation in existing buildings and within six months of equipment installation in new construction.
- An itemized and dated invoice from the contractor must accompany the equipment application. Applications must be completed in full; incomplete applications will delay processing and may be returned.
- Incentive checks will be issued to the building owner or account holder when equipment is installed in an existing building. Checks will be issued to the builder/general contractor or building owner when equipment is installed in a new building.
- Equipment must be installed and operating prior to submission of application.
- MidAmerican Energy Company reserves the right to verify installations.
- MidAmerican Energy Company reserves the right to install a metering device on new equipment to verify energy savings.
- Incentives may be subject to income tax. Consult your tax advisor for more information.
- MidAmerican Energy Company reserves the right to change or cancel this program at any time.
- The incentive payment cannot exceed 70 percent of the installed cost (labor and material).

DISCLAIMER: MidAmerican Energy Company does not guarantee that installation and operation of energy-efficient equipment will result in reduced usage or in cost savings. The manner in which a customer uses and maintains energy-efficient equipment affects potential cost savings. MidAmerican Energy Company makes no warranties, expressed or implied, with respect to any equipment purchased or installed, including, but not limited to, any warranty of merchantability or fitness for a particular purpose. In no event shall MidAmerican Energy Company be held liable for any incidental or consequential damages or injuries resulting from defective equipment or installation. MidAmerican Energy Company reserves the right to cancel or change these programs at any time. MidAmerican Energy Company's acceptance of this application does not guarantee payment of incentive.

2012 IOWA VARIABLE-SPEED DRIVES REBATE APPLICATION

ATTENTION
Photocopy this form and
save the original for future use or
download additional copies at
www.midamericanenergy.com/iowa_motors.

Complete this application, attach copies of invoices and provide motor specification sheets.

Mail to: MidAmerican Energy Company, EnergyAdvantage Programs, P.O. Box 4628, Des Moines, IA 50305-4628
or fax to 515-244-8825. Call 800-894-9599 with questions about the program.

My facility had an energy assessment in the following program (check if applicable):

- Nonresidential Energy Analysis/*EfficiencyPartners*[®] Multifamily Housing
 Small Commercial Audit/*BusinessCheck*[®] Agriculture

Date audit completed (month/year) _____

Customer Information

MidAmerican Energy account number (found on bill; first seven digits only) -

Installation address _____

City _____ State _____ ZIP _____

Company name on bill _____

Incentive check (if applicable) should be payable to _____

Mailing address _____

City _____ State _____ ZIP _____

Contact person _____ Title _____

Phone _____ Email _____

Customer Agreement (Signature required before application is processed.)

My signature indicates consent to and agreement with all program terms and conditions, certifies that all information on this application is correct, and that all of the listed new equipment has been purchased, installed and is operating at the indicated location. **I understand that MidAmerican Energy Company reserves the right to inspect and verify installation before or after issuing the rebate payment.**

Customer signature _____ Date _____

Equipment Information

The equipment will be installed in a: New facility Existing facility Agribusiness facility

Location (e.g. department, building, machine) _____

Installing Dealer Information

Dealer name _____

Address _____

City _____

State _____

ZIP _____

Contact person _____ Phone _____ Fax _____

Email _____ **Signature** _____

Variable-Speed Drive Information **1HP and larger, three phase only** (List each VSD separately and attach specification sheets.)

The variable-speed drive incentive is \$50 per horsepower of the motor driven or 70 percent of the installed cost, whichever is less.

MANUFACTURER	MODEL OR CATALOG #	SERIAL #	RATING (HP)	EFFICIENCY PERCENT	EQUIPMENT COST	INSTALLATION LABOR COST	RATING (HP)	EFFICIENCY PERCENT	INSTALL DATE

CONTROLLED MOTOR INFORMATION

Type of Application (check one)

- Heating/cooling equipment
 Other _____

Operating Information

VSD Hours of Operation: (circle a.m. or p.m.)

Monday - Friday _____ a.m./p.m. to _____ a.m./p.m.

Saturday _____ a.m./p.m. to _____ a.m./p.m.

Sunday _____ a.m./p.m. to _____ a.m./p.m.

Estimated total hours per year _____ out of 8,760 possible

- June - Sept. Oct. - May Year-round Other _____

Note: 3,000 operating hours minimum required for incentives.

For MidAmerican Energy Use

Project ID _____ Sector type _____ Electric rate _____

Date received _____ / _____ / _____ Date approved _____ / _____ / _____ Equipment approved by _____

Incentive amount _____ Audit date _____ Audit ID _____

2012 IOWA
MOTOR INCENTIVES AVAILABLE
(THREE PHASE ONLY)

**Explosion-Proof/Severe
Duty NEMA MG-1
Table 12-12 – TEFC Motors**

**Totally Enclosed
Fan-Cooled Motors**

Open Drip-Proof Motors

HORSE-POWER	SPEED in RPM	NOMINAL EFFICIENCY	INCENTIVES AVAILABLE	HORSE-POWER	SPEED in RPM	NOMINAL EFFICIENCY	INCENTIVES AVAILABLE	HORSE-POWER	SPEED in RPM	NOMINAL EFFICIENCY	INCENTIVES AVAILABLE
1	3600 1800 1200	77.0% 85.5% 82.5%	\$30 \$45 \$45	1	3600 1800 1200	84.0% 86.5% 84.0%	\$60 \$75 \$125	1	3600 1800 1200	84.0% – –	\$50 \$0 \$0
1.5	3600 1800 1200	84.0% 86.5% 87.5%	\$30 \$55 \$55	1.5	3600 1800 1200	85.5% 87.5% –	\$75 \$70 \$0	1.5	3600 1800 1200	85.5% – 87.5%	\$55 \$0 \$75
2	3600 1800 1200	85.5% 86.5% 88.5%	\$45 \$65 \$80	2	3600 1800 1200	86.5% 87.5% –	\$70 \$70 \$0	2	3600 1800 1200	86.5% – 88.5%	\$65 \$0 \$80
3	3600 1800 1200	86.5% 89.5% 89.5%	\$45 \$65 \$80	3	3600 1800 1200	87.5% 90.2% 90.2%	\$80 \$95 \$120	3	3600 1800 1200	87.5% 90.2% 89.5%	\$65 \$65 \$100
5	3600 1800 1200	88.5% 89.5% 89.5%	\$55 \$70 \$115	5	3600 1800 1200	89.5% 90.2% 90.2%	\$90 \$100 \$135	5	3600 1800 1200	89.5% – 90.2%	\$70 \$0 \$130
7.5	3600 1800 1200	89.5% 91.7% 91.0%	\$90 \$80 \$170	7.5	3600 1800 1200	90.2% 92.4% 91.7%	\$130 \$150 \$230	7.5	3600 1800 1200	89.5% – 91.7%	\$115 \$0 \$155
10	3600 1800 1200	90.2% 91.7% 91.0%	\$90 \$100 \$200	10	3600 1800 1200	91.0% 92.4% 91.7%	\$135 \$165 \$260	10	3600 1800 1200	90.2% – 92.4%	\$130 \$0 \$200
15	3600 1800 1200	91.0% 92.4% 91.7%	\$195 \$100 \$230	15	3600 1800 1200	91.7% 93.0% 92.4%	\$225 \$310 \$350	15	3600 1800 1200	91.0% – 92.4%	\$185 \$0 \$275
20	3600 1800 1200	91.0% 93.0% 91.7%	\$155 \$150 \$325	20	3600 1800 1200	92.4% 93.6% 92.4%	\$250 \$310 \$460	20	3600 1800 1200	91.7% 93.6% 93.0%	\$215 \$230 \$330
25	3600 1800 1200	91.7% 93.6% 93.0%	\$250 \$215 \$300	25	3600 1800 1200	92.4% – –	\$325 \$0 \$0	25	3600 1800 1200	93.0% 94.1% 93.6%	\$260 \$285 \$400
30	3600 1800 1200	91.7% 93.6% 93.0%	\$250 \$250 \$320	30	3600 1800 1200	92.4% 94.1% 93.6%	\$385 \$480 \$600	30	3600 1800 1200	93.6% – 94.1%	\$300 \$0 \$420
40	3600 1800 1200	92.4% 94.1% 94.1%	\$265 \$275 \$480	40	3600 1800 1200	93.0% 94.5% 94.5%	\$585 \$630 \$750	40	3600 1800 1200	93.6% 94.5% 94.5%	\$390 \$405 \$595
50	3600 1800 1200	93.0% 94.5% 94.1%	\$390 \$375 \$530	50	3600 1800 1200	93.6% 95.0% 94.5%	\$575 \$690 \$910	50	3600 1800 1200	93.6% 95.0% 94.5%	\$430 \$445 \$720
60	3600 1800 1200	93.6% 95.0% 94.5%	\$390 \$480 \$565	60	3600 1800 1200	94.1% – 95.0%	\$805 \$0 \$1,150	60	3600 1800 1200	94.1% 95.4% 95.0%	\$540 \$560 \$950
75	3600 1800 1200	93.6% 95.4% 94.5%	\$480 \$650 \$720	75	3600 1800 1200	94.5% – 95.0%	\$940 \$0 \$1,335	75	3600 1800 1200	94.1% 95.4% 95.0%	\$410 \$690 \$1,060
100	3600 1800 1200	94.1% 95.4% 95.0%	\$870 \$805 \$1,250	100	3600 1800 1200	94.5% 95.8% 95.4%	\$1,230 \$1,230 \$1,230	100	3600 1800 1200	94.5% – 95.4%	\$755 \$0 \$1,360
125	3600 1800 1200	95.0% 95.4% 95.0%	\$595 \$875 \$780	125	3600 1800 1200	95.4% 95.8% 95.4%	\$1,650 \$1,650 \$1,650	125	3600 1800 1200	94.5% 95.8% 95.4%	\$990 \$1,020 \$1,260
150	3600 1800 1200	95.0% 95.8% 95.8%	\$750 \$1,050 \$1,465	150	3600 1800 1200	95.8% 96.2% 96.2%	\$1,840 \$1,840 \$1,840	150	3600 1800 1200	94.5% 96.2% 95.8%	\$1,220 \$1,135 \$1,485
200	3600 1800 1200	95.4% 96.2% 95.8%	\$875 \$905 \$1,595	200	3600 1800 1200	95.8% 96.5% –	\$2,480 \$2,480 \$0	200	3600 1800 1200	95.4% 96.2% 95.8%	\$1,380 \$1,420 \$1,950

For motors > 200 HP, use the Nonresidential Custom Systems program.

FEDERAL TAX DEDUCTIONS FOR ENERGY EFFICIENCY

For a limited time, a tax deduction of up to \$1.80 per square foot is available to owners or designers of new or existing commercial buildings that save at least 50 percent of the heating and cooling energy of a building that meets ASHRAE Standard 90.1-2001. Partial deductions of up to \$.60 per square foot can be taken for measures affecting any one of three building systems: the building envelope, lighting, or heating and cooling systems. Visit www.energystar.gov/taxcredits and click on Commercial Buildings under Other Tax Information for details or consult a tax advisor.



800-894-9599

www.MIDAMERICANENERGY.com



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