

MEASURE DESCRIPTION



Incentives are available for the installation of variable frequency drives (VFDs) on various building systems including new air compressors, HVAC fan equipment, boiler and kitchen hood systems. VFDs allow the ability to slow or speed up the speed of the controlled equipment to meet the facility needs resulting in energy savings. Both equipment replacement and new construction projects are eligible to apply. Incentive rates are pre-determined based on the size and efficiency of new equipment. Pre-approval is not required prior to installation, however applications must be submitted within 1 year of material purchase to remain eligible for the incentive.

APPLICATION INSTRUCTIONS

1. **New to SmartStart?** Download the [SmartStart Program Guide](#) or contact us at (866) NJSMART with questions.
2. Pre-approval is not required for Variable Frequency Drives applications, however customers may submit applications prior to installation to receive an incentive commitment letter. Applicants choosing to install prior to program pre-approval do so at their own risk.
3. Ensure that the facility is eligible for participation in the program by reviewing a recent electric utility bill to confirm that Societal Benefits Charges are paid to an investor-owned utility under a commercial rate code.
4. Review all measure requirements to confirm that equipment you are purchasing meets efficiency requirements and is eligible for an incentive. If you need assistance with development of a scope of work or do not know what type of equipment you need, consult the [Trade Ally List](#) to find a contractor who can assist you.
5. Complete the Variable Frequency Drives application and incentive worksheet.
6. Submit the signed, completed form along with all supporting documentation listed in the Application Checklist to the program for review and pre-approval through one of the methods below. An electronic version of this application is available through the online application portal.
7. We will review the submittal for completeness and contact you and your contractor via email to retrieve any missing information or documentation.
8. An approval letter will be emailed to you and your contractor indicating the approval date and estimated incentive amount set aside for your project.

Online application portal: njcleanenergy.com/forms

Email for new application submissions only. Call (866) NJSMART with questions. NJApps@njcleanenergy.com

Mail: New Jersey's Clean Energy Program
c/o TRC Energy Services
900 Route 9 North
Suite 404
Woodbridge, NJ 07095

Fax: (732) 855-0422

APPLICATION CHECKLIST

The following documentation must be attached to all completed, signed applications:

A complete copy (all pages) of a recent electric bill from a NJ utility which lists the required Societal Benefits Charge with customer name matching the name listed on the application.

For new construction projects where a utility account has not yet been established, the utility bill is not required with the initial application submission, however the customer will be required to submit a utility bill prior to incentive payment.

Manufacturer's specification sheets for variable frequency drive clearly documenting the VFD efficiency

Manufacturer's specification sheets for controlled motor clearly documenting the motor size and efficiency

If your project is already complete, please include the following additional documentation for approval and payment. Please note, a post inspection may be required prior to incentive being processed:

Material invoice

- The invoice should include the model number of the equipment installed, quantity, and unit price.
- Equipment may be purchased up to one year prior to TRC's receipt of the application. Sufficient documentation must be submitted with the material invoice demonstrating the date of equipment purchase, such as a purchase order, if it is not clear on the material invoice.

Labor Invoice

- Labor/installation price must be listed separately from material price.
- For projects that were self-installed by the participating customer, a signed letter on participating customer letterhead attesting to the start and end dates of the self-installation should be provided.

Tax Clearance Certificate obtained from NJ Division of Taxation

- Instructions on applying for the certificate can be found at www.njcleanenergy.com/TCC.
- No incentive will be paid without receipt of a valid Tax Clearance Certificate. Certificates are valid for 180 days and must be valid on the date TRC signs off on the incentive. The name of the customer and tax ID number appearing on the tax clearance must align with the customer name listed on the provided utility bill and application.

FY19 VARIABLE FREQUENCY DRIVES INCENTIVE RATES AND REQUIREMENTS

General Requirements

1. The controlled horsepower (HP) is the cumulative motor HP controlled by each VFD.
2. Controlled HP less than the listed eligible values in the tables below are eligible for incentives. However, controlled motor sizes exceeding the listed eligible values in the table below should pursue incentives through the Custom measure application. Please contact us to discuss.
3. If the controlled HP falls in between sizes listed in the incentive table, the incentive will be based on the lower HP listed.
4. For all VFD measures except air compressors, the maximum controlled size threshold is 50 HP. VFDs controlling more than 50 HP, with the exception of air compressors, should pursue the C&I Custom Program.

Motor Size (HP) Controlled per VFD	Incentive Rate
0.5	\$50
1	\$75
2	\$100
3	\$200
4	\$300
5	\$900
7.5	\$1000
10	\$1,100
15	\$1,200
20	\$1,300
25	\$1,400
30	\$1,500
40	\$2,500
50	\$3,000
60	\$3,500
75	\$4,000
100	\$5,000
200	\$7,000

VFDs for HVAC systems

1. Incentives for VFDs in HVAC VAV systems are available only for installing a VFD on existing VAV systems as an add-on measure. Replacement of an existing VFD on VAV systems and installations on VAV systems in new construction are not eligible
2. Incentives for VFDs in existing constant volume HVAC rooftop equipment (RTU) systems are provided for existing HVAC supply, exhaust, or return air fans only. Throttling devices, such as inlet vanes or bypass dampers and throttling valves must be removed or permanently disabled.
3. The Variable Frequency Drive (VFD) incentive for cooling towers is available for existing single speed motors only. Replacement of two speed motor with single speed/VFD motor, replacement of existing VFD and new construction do not qualify
4. The Variable Frequency Drive (VFD) incentive for pumps is available only for VFDs installed on centrifugal chilled water pump motors for HVAC systems

- The VFDs must be installed in a system (VAV air supply or chilled water pumping systems) that incorporates pressure sensors (or other applicable sensor devices) in the flow stream.

Description	Eligible Controlled HP Range	Measure Code
Variable Air Volume HVAC Systems - Airfoil/Backward Inclined Fan	5 HP - 50 HP	VFD1
Variable Air Volume HVAC Systems - Forward Curved Fan	5 HP - 50 HP	VFD2
Constant Volume HVAC Systems - Airfoil/Backward Inclined Fan	0.5 HP - 50 HP	VFD3
Constant Volume HVAC Systems - Forward Curved Fan	0.5 HP - 50 HP	VFD4
Cooling Tower Fan	10 HP – 50 HP	VFD5
Chilled Water Pump	20 HP – 50 HP	VFD6

VFDs for Compressed Air Systems

- Incentives are available for new air or water cooled, single or double stage, oil lubricated or oil free twin rotor screw air compressors outfitted with VFDs (providing compressed air for typical plant air use)
- Replacement of VFD on an existing air compressor that had VFD control is not eligible for incentives
- For new air compressors with VFDs controlling more than 200HP, incentives must be pursued through the C&I Custom path.
- Only one VFD controlled air compressor will be eligible for an incentive for each compressed air system.
- The applicant shall provide sufficient documentation to demonstrate that a VFD controlled air compressor operates, at a minimum, for 2000 hours annually. Documentation may include P&IDs, Control Logic Diagrams, and Plant Operating Schedules.

Description	Eligible Controlled HP Range	Measure Code
Air Compressor	25 HP – 200 HP	VFD7

VFDs for Boiler Air Systems

- Incentive for existing single speed motors only.
- Replacement of two-speed motor with single speed / VFD motor, replacement of existing VFD and new construction do not qualify.
- VFDs must be controlled by an automatic signal in response to modulating air/water flows.

Description	Eligible Controlled HP Range	Measure Code
Boiler Feedwater Pump	5 HP – 50 HP	VFD8
Boiler Fan Motor - Airfoil/backward Inclined Fan	5 HP – 50 HP	VFD9
Boiler Fan Motor - Forward Curved	5 HP – 50 HP	VFD10

VFDs for Kitchen Hoods

- 14. All VFDs/controls used in kitchen hoods must be UL or other OSHA approved Nationally Recognized Testing Laboratory (NRTL) in accordance with applicable US standards.
- 15. VFD incentives will not be provided for replacement of two-speed motor with single-speed VFD motor or replacement of existing VFD.

Description	Eligible Controlled HP Range	Measure Code
Kitchen Hoods	0.5 HP – 50 HP	VFD11

Variable Frequency Drives Application

FY18 July 1, 2017 – June 30, 2018



For Office Use Only

Date: _____

App #: _____

CUSTOMER INFORMATION

Company Name as listed on utility bill

Formal Legal Name of Company listed on utility bill

Company Type

Federal Tax ID #

State Tax ID # (if different)

Customer Contact Name

Customer Contact Title

Customer Phone Number

Customer Mailing Address

Suite/Apt#

City

State

ZIP

Customer Contact Email Address

How did you hear about the program?

[NAICS Code](#)

FACILITY AND PROJECT INFORMATION

Facility Address

City

State

ZIP

Electric Utility Serving Facility

Electric Account Number

Facility Type

Anticipated Installation Start Date

Site Contact for Inspection Scheduling (Name/Title) *

Site Contact Phone

**On-site contact will be notified via email of any proposed inspection date/time.*

Site Contact Email Address

CONTRACTOR/VENDOR INFORMATION

Contractor Company Name

Contact Person Name and Title

Email Address

Phone Number

Contractor Mailing Address

Apt/Suite #

City

State

ZIP

PAYEE INFORMATION

Payee Company Name _____		Contact Name and Title _____		
Email Address _____		Phone Number _____		
Incentive Check Mailing Address _____	Apt/Suite # _____	City _____	State _____	ZIP _____
Payee Federal Tax ID _____				

ESIP DECLARATION

Check this box if an Energy Savings Improvement Program (ESIP) is a source of funding. ESIP allows government agencies to pay for energy related improvements using the value of the resulting energy savings.

CUSTOMER AUTHORIZATION AND SIGNATURE

I agree to the terms and conditions of the SmartStart Buildings Program and the Specific Program Requirements for this measure. I confirm that the Variable Frequency Drive equipment will be operated for at least 2,000 hours annually.

I agree that this document and all notices and disclosures made or given relating to this document may be created, executed, delivered and retained electronically and that the electronic signatures appearing on this document and any related documents shall have the same legal effect for all purposes as a handwritten signature.

The information, statements, and documents I have provided in and with this document are true and accurate to the best of my knowledge. I am aware that if any of them are willfully false, I am subject to punishment.

If applicable, I authorize payment of the incentive to the third party listed in the Payee Information field of this application.

Customer Signature _____ Date _____

Printed Name _____ Title _____

VARIABLE FREQUENCY DRIVES INCENTIVE WORKSHEET

Measure Code	Manufacturer Name	Model Number	VFD Location within building (Room Name)	VFD Efficiency (%)	Motor Efficiency (%)	Motor Application	HP of Controlled Motor	Incentive Per VFD (See application)	Quantity	Total Incentive
(ex) VFD2	ACME	RRC1957	Mech Room #4	97.0%	94.1%	Supply Fan	30	\$1,500	2	\$3,000
(ex) VFD9	ACME	CC1234	Boiler Room	97.0%	82.0%	N/A	15	\$1,200	1	\$1,200
Total:										

Required for Kitchen Hoods Only:

Facility Type (Check One):	<input type="checkbox"/> Campus	<input type="checkbox"/> Lodging	<input type="checkbox"/> Restaurant	<input type="checkbox"/> Supermarket	<input type="checkbox"/> Other
Square footage of kitchen					

NJ SmartStart Buildings® Program Terms and Conditions FY2019 (July 1, 2018 – June 30, 2019)

Eligibility

1. This application package must be received by the Program Manager on or before June 30, 2019 in order to be eligible for the fiscal year program (July 1, 2018 - June 30, 2019) incentives. All participating customers are required to submit the most current application form. All submissions will be reviewed based on the current program requirements and incentive levels approved by the Board of Public Utilities.
2. Program Incentives are available to non-residential retail electric and/or gas service participating customers of a New Jersey Utilities. A participating customer must pay Societal Benefits Charges under a New Jersey Utility account serving the fuel type (electric or gas) applicable to the specific Energy-Efficient Measure. Participating customers who have not contributed to the Societal Benefits Charge of the applicable New Jersey Utility are not eligible for incentives offered through this program. New Jersey Utilities include Atlantic City Electric, Jersey Central Power & Light, Rockland Electric Company, New Jersey Natural Gas, Elizabethtown Gas, PSE&G and South Jersey Gas.
3. Each utility account requires a complete, separate application. Projects for the same utility account and the same technology being done at the same time should be submitted on one application.
4. For all Prescriptive measures with the exception of Prescriptive & Performance Lighting, Lighting Controls and Custom measures, pre-approval is not required prior to installation, however any participating customer and/or agent who purchases and installs equipment without Program Manager approval does so at his/her own risk.
5. For completed projects that do not require program pre-approval (excluding Prescriptive Lighting, Prescriptive Lighting Controls, Performance Lighting and Custom Measures) the application must be submitted to the Program Manager within 12 months of equipment purchase. Sufficient documentation must be provided confirming the date of equipment purchase (material invoice, purchase order, etc.).
6. In order to be eligible for program incentives, a participating customer, or an agent (contractor/vendor) authorized by a participating customer, must submit a properly completed application package that is signed by the participating customer. A complete application package should include all documentation listed in the checklist section of the application.
7. Project invoices submitted after installation should list both the labor and material costs separately. The invoice should include a description of the equipment installed, quantity, and unit price. For projects that are self-installed by the participating customer, a signed letter on participating customer letterhead may be provided in lieu of a labor invoice attesting to the start and end dates of the self-installation.
8. Energy-Efficient Measures must be installed in buildings located within a New Jersey Utilities' service territory and designated on the participating customer's incentive application.
9. Program Incentives are available for qualified Energy-Efficient Measures as listed and described in the Program materials and incentive applications.
10. The participating customer must ultimately own the equipment through an up-front purchase. Equipment procured by participating customers through another program offered by New Jersey's Clean Energy Program or the New Jersey Utilities, as applicable, are not eligible for incentives through this program.
11. Incomplete application submissions, applications requiring inspections and unanticipated periods of high volume may cause processing delays.

Incentive Amounts

1. Program Incentives will not exceed:
 - a. the approved Program Incentive amount, or
 - b. total project cost of the Energy-Efficient Measure, whichever is less, excluding NJ state sales tax as determined by the Program Manager. Project costs include the expenses directly associated with the Energy-Efficient Measure.
2. Products offered at no direct cost to the participating customer are ineligible.
3. Program Incentives are limited to \$500,000 per utility account in a fiscal year.

Inspections

1. The Program Manager reserves the right to conduct a pre-inspection of the facility prior to the installation of equipment for Prescriptive Lighting, Performance Lighting, Lighting Controls and Custom Measures applications. Pre-inspections will be performed prior to the issuance of the approval letter. Work must not begin prior to formal program approval.
2. All projects are subject to post-inspection to confirm equipment installation prior to payment.
3. The Program Manager reserves the right to verify sales transactions and to have reasonable access to Participating Customer's facility to inspect pre-existing product or equipment (if applicable) and the Energy-Efficient Measures installed under this Program, prior to issuing incentives or at a later time.
4. The applicant allows reasonable access to the property to inspect the installation and performance of the technologies and installations that are eligible for incentives under the guidelines of New Jersey's Clean Energy Program.

Tax Clearance Certificate Requirements

1. Participating customers must provide a Tax Clearance Form (entitled "Business Assistance or Incentive Clearance Certificate") for Board of Public Utilities use.
2. The name of the customer listed on the certificate must match the participating customer name listed on the utility bill and the application.
3. The participating customer tax ID listed on the application must agree with the tax ID listed on the Certificate.
4. Certificates are valid for 180 days and must be valid on the date the Program Manager signs off on the incentive.

Deficient Applications

1. If an application package is incomplete, information is missing or deemed insufficient, a deficiency notice will be sent to the participating customer requesting additional information via e-mail. The information or documentation requested on the letter must be received by the Program Manager within 30 days of the date of the request. If additional deficiencies are still noted, there will be up to two additional notifications issued with the same time frames.
2. If a participating customer fails to respond to a deficiency request within 30 days or exceeds the three attempts provided, the application will be cancelled. If a project is cancelled, participating customers may re-apply under the program incentives and requirements in place at that time.

Expirations

1. Pre-approved projects are given a one year approval in which the proposed measure is to be installed and operational. When a project has expired the participating customer will have 30 days to either submit a request for an extension OR submit final project paperwork. If no response is received within 30 days of expiration, the project will be cancelled.
2. Extension requests must be in writing from the participating customer and include the circumstances that led to the extension request, and the percentage of the project completed.
3. Extension requests may be granted for a period no longer than six (6) months. The Program Manager may provide up to two, six month extensions from the original approval expiration date.
4. Upon expiration, if the project has not started and the participating customer is still interested in installing the equipment, the existing application will be cancelled and a new application package must be submitted, which will be reviewed under the program incentives and requirements in place at that time.

Change in participating customer name/payee after pre-approval

To initiate a change to the participating customer name or payee on a pre-approved application, the following documentation must be provided:

1. A signed letter on participating customer letterhead authorizing the change
2. A new signed application reflecting the updated participating customer or payee name
3. For name change - a utility bill in the name of the new participating customer

All name changes requests are subject to Program Manager approval. Certain requests may require additional information to be submitted as defined by the Program Manager.

Tax Liability

The Program Manager will not be responsible for any tax liability that may be imposed on any participating customer as a result of the payment of Program Incentives. All Participating Customers must supply their federal tax identification number or social security number to the Program Manager on the application form in order to receive a Program Incentive.

Prevailing Wage

Projects with a contract threshold of \$15,444 are required to pay no less than prevailing wage rate to workers employed in the performance of any construction undertaken in connection with Board of Public Utilities financial assistance, or undertaken to fulfill any condition of receiving Board of Public Utilities financial assistance, including the performance of any contract to construct, renovate or otherwise prepare a facility, the operations of which are necessary for the receipt of Board of Public Utilities financial assistance. By submitting an application, or accepting program incentives, applicant agrees to adhere to New Jersey Prevailing Wage requirements, as applicable.

Endorsement

The Program Manager and Administrator do not endorse, support or recommend any particular manufacturer, product or system design in promoting this Program.

Warranties

THE PROGRAM MANAGER AND ADMINISTRATOR DO NOT WARRANT THE PERFORMANCE OF INSTALLED EQUIPMENT, AND/OR SERVICES RENDERED AS PART OF THIS PROGRAM, EITHER EXPRESSLY OR IMPLICITLY. NO WARRANTIES OR REPRESENTATIONS OF ANY KIND, WHETHER STATUTORY, EXPRESSED, OR IMPLIED, INCLUDING, WITHOUT LIMITATIONS, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE REGARDING EQUIPMENT OR SERVICES PROVIDED BY A MANUFACTURER OR VENDOR. CONTACT YOUR VENDOR/SERVICES PROVIDER FOR DETAILS REGARDING PERFORMANCE AND WARRANTIES.

Limitation of Liability

By virtue of participating in this Program, Participating Customers agree to waive any and all claims or damages against the Program Manager or the Administrator, except the receipt of the Program Incentive. Participating Customers agree that the Program Manager's and Administrator's liability, in connection with this Program, is limited to paying the Program Incentive specified. Under no circumstances shall the Program Manager, its representatives, or subcontractors, or the Administrator, be liable for any lost profits, special, punitive, consequential or incidental damages or for any other damages or claims connected with or resulting from participation in this Program. Further, any liability attributed to the Program Manager under this Program shall be individual, and not joint and/or several.

Termination

The New Jersey Board of Public Utilities reserves the right to extend, modify (this includes modification of Program Incentive levels) or terminate this Program without prior or further notice.

Participating Customer's Certification

Participating Customer certifies that he/she purchased and installed the equipment listed in their application at their defined New Jersey location. Participating Customer agrees that all information is true and that he/she has conformed to all of the Program and equipment requirements listed in the application.

Acknowledgement

The applicant gives the Program Manager permission to share records with the New Jersey Board of Public Utilities, and contractors it selects to manage, coordinate or evaluate the New Jersey SmartStart Buildings Program including the release of electric and natural gas utility billing information, as well as make available to the public non-sensitive information.

Definitions:

Energy-Efficient Measures – Any device eligible to receive a Program Incentive payment through the NJ Clean Energy Commercial and Industrial Program (New Jersey SmartStart Buildings).

New Jersey Utilities – The regulated electric and/or gas utilities in the State of New Jersey:

1. Atlantic City Electric
2. Jersey Central Power & Light
3. Rockland Electric Company
4. New Jersey Natural Gas
5. Elizabethtown Gas
6. PSE&G
7. South Jersey Gas

Administrator – New Jersey Board of Public Utilities, Office of Clean Energy.

Participating Customers – Those non-residential electric and/or gas service customers of the New Jersey Utilities who participate in this Program.

Product Installation or Equipment Installation – Installation of the Energy-Efficient Measures.

Program – The Commercial and Industrial Energy-Efficient Construction Program (New Jersey SmartStart Buildings) offered herein by the New Jersey Board of Public Utilities, Office of Clean Energy pursuant to state regulatory approval under the New Jersey Electric Discount and Energy Competition Act, NJS 48:3-49, et seq.

Program Incentives – Refers to the amount or level of incentive that the Program provides to Participating Customers pursuant to the Program offered herein (see description under "Incentive Amount" heading).

Program Manager – TRC Energy Services.