

## Vermont Clean Diesel Grant Program Eligibility Requirements and Criteria - 8/3/15

REPLACEMENT		
Eligible Diesel Vehicles, Engines & Equipment	Funding Available	Summary of Requirements
Highway Diesel Vehicles <sup>1</sup>	Up to 25%	<p>The vehicle to be replaced must: 1) be engine MY 1991-2003 (or MY 1991-2006 for vehicles being replaced with an all electric vehicle), 2) be scrapped or returned to the original engine manufacturer for remanufacturing to MY 2007 or newer certified emission standards, and 3) conform to early attrition<sup>2</sup> requirements.</p> <p>Replacement vehicle must be 1) a newer, cleaner vehicle powered by a 2013 model year or newer certified highway heavy-duty diesel engine, 2) the same type and similar gross vehicle weight rating as the vehicle being replaced, and 3) must perform the same function as the vehicle that is being replaced. Alternative fuel (CNG, hybrid diesel electric, all electric, etc.) vehicles are eligible replacements.</p>
Nonroad Diesel Vehicles & Equipment	Up to 25%	<p>The vehicle or equipment to be replaced must 1) have at least seven years of useful life remaining, 2) operate at least 500 hours per year, 3) be scrapped or returned to the original engine manufacturer for remanufacturing to the cleanest certified emission standard possible, and 4) conform to early attrition<sup>2</sup> requirements. For stationary or auxiliary diesel powered electric generator (genset), replacement means the removal of the entire genset and its replacement with a newer, cleaner genset. The electric generator in a genset together with the newer, cleaner engine is an eligible cost of the replacement.</p> <p>Replacement engine needs to be 1) a newer, cleaner vehicle or piece of equipment powered by a 2013 model year or newer certified nonroad engine, 2) certified to Tier 2, 3, or 4 depending on the Tier of the engine being replaced, 3) the same type and similar horsepower as the vehicle/equipment being replaced, and 4) must perform the same function as the vehicle/equipment that is being replaced. Alternative fuel (CNG, hybrid diesel electric, all electric, etc.) vehicles are eligible replacements.</p>
Drayage Truck <sup>3</sup>	Up to 50%	<p>The vehicle to be replaced must: 1) be engine MY 1991-2003 (or MY 1991-2006 for vehicles being replaced with an all electric vehicle), 2) be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to engine MY 2007 or newer certified emission standards, and 3) conform to early attrition<sup>2</sup> requirements.</p> <p>Replacement vehicle must be 1) a 2010 model year or newer heavy-duty engine equipped with a diesel particulate filter (or diesel oxidation catalyst in the case of a CNG engine), 2) the same type and similar gross vehicle weight rating as the vehicle being replaced, and 3) must perform the same function as the vehicle that is being replaced. Alternative fuel (CNG, hybrid diesel electric, all electric, etc.) vehicles are eligible replacements.</p>
Marine Vessels & Locomotives	N/A	Are not eligible for full replacement.

## Vermont Clean Diesel Grant Program Eligibility Requirements and Criteria - 8/3/15

<b>ENGINE REPOWERS</b>		
<i>"Repower" refers to replacing an existing engine with a newer, cleaner engine that is certified to a more stringent set of engine emission standards.</i>		
Eligible Diesel Vehicles, Engines & Equipment	Funding Available	Summary of Requirements
Highway Diesel Vehicles <sup>1</sup>	Up to 40%	<p>A highway vehicle to be repowered must have an engine MY 1991-2006. Engine to be repowered is subject to the same scrappage/remanufacturing and early attrition<sup>2</sup> requirements as replacements.</p> <p>1) The repowered engine must be a newer, cleaner engine that is certified to a more stringent set of engine emission standards, 2) the repowered engine must be of similar horsepower as the engine being replaced, and 3) the vehicle must continue to perform the same function. Diesel engine replacement with an engine certified for use with a clean alternative fuel, diesel engine replacement with an electric power source (battery or fuel cell), and/or the replacement of a nonroad engine with a highway engine are eligible.</p>
Nonroad Diesel Vehicles & Equipment	Up to 40%	<p>A nonroad engine or equipment to be repowered 1) must have at least seven years of useful life remaining, 2) must operate at least 500 hours per year, 3) and is subject to the same scrappage/remanufacturing and early attrition<sup>2</sup> requirements as replacements.</p> <p>The repowered engine must be 1) a newer, cleaner engine that is certified to a more stringent set of engine emission standards, 2) certified to Tier 2, 3, or 4 depending on the Tier of the engine being replaced, and 3) of similar horsepower as the engine being replaced. The repowered vehicle, engine or equipment must continue to perform the same function. Diesel engine replacement with an engine certified for use with a clean alternative fuel, diesel engine replacement with an electric power source (battery or fuel cell), and/or the replacement of a nonroad engine with a highway engine are eligible.</p>
Electric Generator	Up to 40%	<p>For a repower that involves the replacement of an existing diesel propulsion engine with a stationary or auxiliary diesel powered electric generator (genset), the electric generator and the newer, cleaner engine comprising the genset are both eligible costs of the repower.</p> <p>Repower of an existing genset involves replacing the existing diesel engine in the genset with a newer, cleaner engine. Only the newer, cleaner engine (labor and equipment) is an eligible cost of the repower.</p>
Locomotive & Marine Engines	Up to 40%	<p>The engine to be replaced must 1) operate at least 1,000 hours per year, 2) be scrapped or returned to the original engine manufacturer for remanufacturing to the cleanest certified emission standard possible, and 3) conform to early attrition<sup>2</sup> requirements.</p> <p>Replacement engine needs to be 1) a newer, cleaner engine that is certified to a more stringent set of engine emission standards, 2) certified to Tier 0+, 1+, 2+, 3, or 4 (locomotive) or Tier 1, 2, 3, or 4 (marine) depending on the Tier of the engine being replaced, and 3) the same type and similar horsepower as the engine being replaced. The locomotive or marine vessel must continue to perform the same function.</p>

## Vermont Clean Diesel Grant Program Eligibility Requirements and Criteria - 8/3/15

IDLE REDUCTION TECHNOLOGIES		
Eligible Diesel Vehicles, Engines & Equipment	Funding Available	Summary of Requirements
Highway Diesel Vehicles <sup>1</sup>	Up to 100%	Stand alone installation cannot be funded, except for installation on locomotives, shore connection systems and truck stop electrification technologies (see below). Idle reduction technologies must be combined on the same vehicle with a new eligible verified exhaust control funded under this program. All technologies need to be EPA verified and include auxiliary power units (APUs), battery air conditioning systems, fuel operated heaters, and thermal storage systems. APUs are only eligible on trucks MY 1991-2006.
Locomotives	Up to 40%	Locomotive must operate at least 1,000 hours/year. All technologies need to be EPA verified and may include shore connection systems, auxiliary power units, fuel operated heaters, and automatic shut-down/start-up systems (AESS). Funding for AESS technology is NOT eligible for locomotives certified to Tier0+ or higher. Locomotive shore connection system projects must be expected to be utilized at least 1,000 hours/year. Funding is not available for federally mandated measures.
Shore Connection & Truck Stop Electrification	Up to 25%	All technologies need to be EPA verified and may include shore connection systems for marine vessels and electrified parking spaces for medium and heavy duty trucks. No funds awarded shall be used for marine shore connection system projects that are expected to be utilized less than 2,000 MW-hr./year. Funding is not available for federally mandated measures.
EXHAUST CONTROLS		
All technologies must be EPA California Air Resources Board verified (EPA list - <a href="http://epa.gov/cleandiesel/verification/verif-list.htm">http://epa.gov/cleandiesel/verification/verif-list.htm</a> , CARB list - <a href="http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm">http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm</a> ). Technologies may include oxidation catalysts, particulate filters, crankcase emission control, etc.		
Eligible Diesel Vehicles, Engines & Equipment	Funding Available	Summary of Requirements
Highway Diesel Vehicles <sup>1</sup>	Up to 100%	Vehicle must have engine MY 1991-2006. For retrofitting with selective catalytic reduction (SCR), vehicle must have engine MY 1991-2009.
Nonroad Diesel Vehicles & Equipment	Up to 100%	A nonroad engine or equipment to be retrofit must have at least seven years of useful life remaining and must operate at least 500 hours per year.
Marine Vessels & Locomotives	Up to 100%	Marine engines must operate a minimum of 1,000 hours/yr. Locomotives must be Tier 0+ or higher and operate at least 1,000 hours/yr.
ENGINE UPGRADES		
Eligible Diesel Vehicles, Engines & Equipment	Funding Available	Summary of Requirements
Nonroad, Marine Engines & Locomotives	Up to 40%	Nonroad engine or equipment must have at least seven years of useful life remaining and operate at least 500 hours/yr. Marine and locomotive engines need to operate at least 1,000 hours/yr. and upgraded engines need to be 1) a newer, cleaner engine that is certified to a more stringent set of engine emission standards, 2) certified to Tier 0+, 1+, 2+, 3, or 4 (locomotive) or Tier 1, 2, 3, or 4 (marine) depending on the Tier of the engine being replaced. Upgrade technologies must be on EPA's verified list - <a href="http://www.epa.gov/cleandiesel/verification/verif-list.htm">http://www.epa.gov/cleandiesel/verification/verif-list.htm</a> . Remanufacture systems for locomotives and marine engines must be on EPA's certified list - <a href="http://www.epa.gov/otaq/certdata.htm">http://www.epa.gov/otaq/certdata.htm</a> .

## Vermont Clean Diesel Grant Program Eligibility Requirements and Criteria - 8/3/15

CLEANER FUEL USE		
Eligible Diesel Vehicles, Engines & Equipment	Funding Available	Summary of Requirements
Highway & Nonroad Diesel Vehicles, Engines & Equipment, Marine Engines & Locomotives	Up to 100% of the cost difference between cleaner fuel and conventional diesel fuel	Cannot fund stand alone cleaner fuel use. Cleaner fuel use must be combined with new verified exhaust control, clean alternative fuel conversion, engine upgrade, engine repower, or vehicle/equipment replacement funded under this program.
VERIFIED AERODYNAMIC TECHNOLOGIES & VERIFIED LOW ROLLING RESISTANCE TIRES		
Eligible Diesel Vehicles, Engines & Equipment	Funding Available	Summary of Requirements
Long Haul Class 8 Trucks <sup>1</sup>	Up to 100%	Cannot fund stand alone aerodynamic technologies or low rolling resistance tires for use. Must be combined with the new installation of an exhaust control funded under this program. No funds shall be used for the purchase of aluminum wheels except where a fleet is retrofitting from standard dual tires to SmartWay-verified single-wide low rolling resistance tires. In this case, the cost of aluminum single-wide wheels would be acceptable as additional equipment necessary to use the SmartWay verified technology, as would the cost of steel or light weight steel single-wide wheels. No funds shall be used for the purchase of low rolling resistance tires or advanced aerodynamic technologies if similar technologies have previously been installed on the truck or trailer.
CLEAN ALTERNATIVE FUEL CONVERSIONS		
Eligible Diesel Vehicles, Engines & Equipment	Funding Available	Summary of Requirements
Highway Diesel Vehicles <sup>1</sup>	Up to 40%	Clean alternative fuel conversions are accomplished by applying a certified or compliant alternative fuel conversion “kit” to an existing highway diesel engine. Engine must be MY 1991-2006. All clean alternative fuel conversions (except pure battery electric) must meet applicable EPA standards pursuant to 40 CFR Parts 85 and 86. Lists of certified and compliant clean alternative fuel conversion systems, and additional guidance, can be found at <a href="http://www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm">www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm</a> . Clean alternative fuel conversions must be “dedicated” or “mixed fuel”, meaning the engine runs only on the alternative fuel, or uses a small amount of diesel mixed with the alternative fuel. Dedicated or mixed fuel engines do not have the ability to operate solely on diesel fuel. “Dual fuel” or “bi-fuel” conversions, meaning the engine can switch between fuel sources and still has the capability of running on 100% diesel, are not eligible for funding under this solicitation.

1. For this program, medium-duty and heavy-duty highway vehicles are defined as Class 5 - Class 8: Class 5 (16,001 -19,500 lbs. GVWR); Class 6 (19,501 - 26,000 lbs. GVWR); Class 7 (26,001 - 33,000 lbs. GVWR); Class 8a (33,001 - 60,000 lbs. GVWR); Class 8b (60,001 lbs. GVWR and over). “Long-haul” means the truck must have a gross vehicle weight rating over 33,000 pounds and have a sleeper cab.

2. Early Attrition: Replacements or repowers that would have occurred through normal attrition are considered to be the result of normal fleet turnover and are not eligible for funding. Normal attrition is generally defined as a replacement that is scheduled to take place within 3 years of the project start date. Normal attrition is typically defined by the vehicle or fleet owner’s budget plan, operating plan, standard procedures, or retirement schedule. For example, if a bus fleet typically retires vehicles after 20 years, a bus that is currently in its 18th or 19th year of service is not eligible for replacement. A bus that is currently in its 17th year of service and has three years of useful life remaining (as defined by the fleet’s retirement schedule) is eligible for replacement. Normal attrition does not include replacements or repowers that must occur due to a State or Local mandate. Applications which include replacements or repowers must include a discussion of the fleet owner’s normal attrition schedule and must explain how the proposed emission reductions are not a result of vehicle/equipment replacements or repowers that would have occurred through normal attrition/fleet turnover within three years of the project start date. For this grant program, the project start date is 10/1/2015, so vehicle/equipment cannot be scheduled to be replaced or repowered before 9/30/2018 in order to be eligible for funding.

3. Drayage Truck - Any Class 8a or 8b in-use on-road vehicle with a gross vehicle weight rating (GVWR) of greater than 33,000 pounds operating on or transgressing through port or intermodal rail yard property for the purpose of loading, unloading or transporting cargo, such as containerized, bulk or break-bulk goods.