



Volkswagen Trust

Be Part of the Solution

Implementation Guidelines: Transit and Shuttle Buses

Fleet operators may use funds from this award category to repower or replace transit and shuttle buses. Missouri's Beneficiary Mitigation Plan dedicates \$4 million to this award category, with the potential to grow up to \$10 million. The amount will grow only if the Department receives an insufficient number of applications for projects in the nongovernment trucks, locomotive/marine, airport/cargo equipment, the DERA option, or electric vehicle charging station award categories. Four area-specific funding pools are available within this award category, including the St. Louis area pool, Kansas City area pool, outside St. Louis and Kansas City areas pool, and statewide pool. The Department will dedicate approximately 25 percent of the total funding in this award category to the St. Louis area pool; approximately 10 percent to the Kansas City area pool; approximately 15 percent to the outside St. Louis and Kansas City area pool; and approximately 50 percent to the statewide pool. This award category includes multiple application rounds, and the later application rounds, if necessary, will reduce the amount of cost share required for projects.

The projects implemented through this award category will help achieve several of the goals included in Missouri's Beneficiary Mitigation Plan. The Department may use funding from this award category to support both public and private fleet upgrades. Transit and shuttle bus repowers and replacements can achieve meaningful NO_x emission reductions. Upgrading and replacing transit and shuttle buses reduces emissions from the buses themselves and supports public transportation systems. Transit reduces the number of cars on the road resulting in even more emission reductions. Public transportation systems generate a myriad of other public benefits as well, including a reduction in overall fuel consumption, less traffic congestion, and access to transportation for people without vehicles.

In addition, the preferential treatment for targeted urban areas of the state will drive air quality improvements in areas that bear a disproportionate share of the air pollution burden. These areas struggle to comply with national ambient air quality standards and have the highest registration numbers of affected Volkswagen vehicles.

Application Rounds

There will be a minimum of two application rounds within this award category, with four possible. Rounds 3 and 4 are possible if funds remain in the award category after Rounds 1 and 2. In Rounds 3 and 4, the Department will reduce the minimum cost share requirements to encourage participation and ensure Missouri spends all funding in the award category within the 10-year trust period allowed by the VW consent decree on eligible projects. Table 1 summarizes the four potential application rounds within this award category.

Table 1 – Application Round Summary for Transit and shuttle Buses

Application and Funding Round	Round Summary
Round 1	The Department will request applications in the coming months. Approximately half of the \$4 million allocated to this award category will be available for projects in Round 1. The Department will dedicate all of the funding during this round to target areas of the state. Approximately 50 percent of the available funds will go to St. Louis area projects, approximately 20 percent of the available funds will go to Kansas City area projects, and approximately 30 percent of the available funds will go to projects in areas outside of St. Louis or Kansas City. For government-owned buses, all repower projects will require a minimum of 25 percent cost share and all replacement projects will require a minimum of 50 percent cost share. For nongovernment-owned buses, diesel or alternative fuel repowers will require a minimum of 60 percent cost share, diesel or alternative fuel replacements will require a minimum of 75 percent cost share, and all-electric repowers or replacements will require a minimum of 50 percent cost share. Applicants may request a maximum of \$1 million during this round.
Round 2	In this round, all unfunded applications from Round 1 will compete in the statewide pool for the remaining half of the \$4 million allocated to this award category. The Department will also accept new applications for this second round to give all fleet owners a second chance to apply and allow successful fleet owners from Round 1 to submit new project proposals. The cost share requirements and maximum funding requests are the same as Round 1. The timing for this round depends on future legislative appropriations.
Round 3	This round will be identical to Round 2, except that the Department will reduce the minimum cost share for government-owned bus replacements to 25 percent. This will be a new application round. The timing for this round depends on future legislative appropriations, occurring only if funding remains in the award category after the Department has funded all eligible applications submitted in Rounds 1 and 2.
Round 4	This round will be identical to Round 2, except that the Department will reduce the minimum cost share for government-owned bus repowers and replacements to 10 percent. This will be a new application round. The timing of this application round depends on future legislative appropriations, occurring only if funding remains in the award category after the Department has funded all eligible applications submitted in Rounds 1, 2, and 3

Eligible Buses

If a project is receiving funding from an additional source such as a DERA grant, a Congestion Mitigation and Air Quality (CMAQ) grant, or another state’s share of the VW Trust funds, the Department cannot award VW Trust funds to the project. The Department may make exceptions only when the funding opportunity (e.g., grants) allows the combining of VW Trust funds on the

same project. Applicants must obtain written authorization from the Department approving the combining of VW Trust funds with any other funding opportunity.

Eligible buses in this award category means government-owned and nongovernment-owned 2009 and older engine model year Class 4-8 vehicles with a gross vehicle weight rating greater than 14,000 pounds used for transporting people. School buses, defined as class 4-8 school bus style vehicles (Type A-D) with a gross vehicle weight rating greater than 14,000 pounds used to transport students to and from school or school-related activities, are not eligible under this award category.

Eligible buses may be repowered with any new diesel, alternate fueled, or all-electric engine. Eligible buses may also be replaced with any new diesel, alternate fueled, or all-electric vehicle. The new repower or replacement engine must be the engine model year in which the eligible mitigation action occurs or one year prior.

For the purposes of this award category, alternate fueled means a vehicle powered by an engine using a fuel different from or in addition to gasoline, ethanol, diesel, or biodiesel. This includes, but is not limited to compressed natural gas, liquid natural gas, propane, and diesel-electric hybrid. For vehicles powered by gasoline, ethanol, diesel, or biodiesel fuel, the use of pretreatment or fuel additives generally will not qualify the bus as alternate fueled.

For the purposes of this award category, all-electric means powered exclusively by electricity provided by a battery, fuel cell, or the grid.

Any proposed repower or replacement of a bus with a cost effectiveness calculation of more than \$100 VW Trust dollars per pound of lifetime NO_x emission reduction is ineligible to receive funding. This will not disqualify the remainder of the application from receiving funding.

Area-specific funding pools require eligible buses be stationed within the applicable area. The Department determines the area a bus is stationed based on the location of the area that is owned or leased for regular parking when not in service. The bus must also spend a minimum amount of its operating time within the applicable area as follows:

St. Louis area pool –

Minimum of 50 percent of its operating time in the City of St. Louis or the counties of St. Louis, St. Charles, Jefferson, or Franklin

Kansas City area pool –

Minimum of 50 percent of its operating time in the counties of Clay, Platte, or Jackson

Outside of the St. Louis and Kansas City area pool –

Minimum of 50 percent of its operating time within the State of Missouri, but outside the areas eligible for funding in the St. Louis or Kansas City area pools.

Statewide pool –

Minimum of 50 percent of its operating time in the State of Missouri

Maximum Funding Requests

The maximum amount of VW Trust funds an applicant may request under this award category is \$1 million. The Department is limiting the maximum funding request for multiple reasons. This will spread the funding to as many fleets as possible so that no single entity reaps the large majority of the benefits. The Department will assign scores to individual buses included on an application as discussed under the Selection Process. The Department may partially award applications and spread the funding to even more fleets. Limiting the application requests to \$1 million ensures that fleets submit applications for their best projects, as opposed to including every eligible bus they own on an application. This will greatly reduce the administrative costs necessary to score and select projects from this award category.

Applicants may submit new applications in each application round, and the \$1 million cap applies per application round. Any unfunded projects submitted in application Round 1 may compete in Round 2; however, those unfunded projects will count towards the \$1 million maximum request in Round 2. As such, the Department will allow applicants to withdraw projects submitted in application Round 1 if the projects are no longer available, if they have other projects they would rather apply for, or if they wish to change the VW funds requested for a particular project. Application Rounds 3 and 4, if necessary, will require new application submissions by all applicants and will each include a \$1 million maximum request.

VW Trust Funding Percentages

The maximum percentage VW Trust funds can cover for an individual project is based on whether the bus is government-owned or nongovernment-owned and the type of project proposed as follows –

Government-owned –

In Round 1 and Round 2, applicants may request VW Trust funds to cover –

- Up to 75 percent of the cost to repower an eligible bus
- Up to 50 percent of the cost to replace an eligible bus

In the event of a third application round, VW Trust funds may cover up to 75 percent of the cost to repower or replace an eligible bus.

In the event of a fourth application round, VW Trust funds may cover up to 90 percent of the cost to repower or replace an eligible bus.

Nongovernment-owned –

In all application rounds, applicants may request VW Trust funds to cover –

- Up to 40 percent to repower an eligible bus with a new diesel or alternate fuel engine
- Up to 25 percent to replace an eligible bus with a new diesel or alternate fuel engine
- Up to 50 percent to repower an eligible bus with a new all-electric engine or to replace an eligible bus with a new all-electric bus

Note: In all application rounds for both government-owned and nongovernment-owned buses, if the project includes a repower or replacement with a new all-electric engine, then the applicable

funding percentages listed above will also apply to the charging infrastructure associated with the new engine.

For the purposes of this award category, government means the State of Missouri, a local government agency within the State of Missouri, or a tribal government or native village. Examples of local government agencies include, but are not limited to, a school district, municipality, city, county, special district, transit district, joint powers authority, or port authority, owning fleets purchased with government funds. The Department will use this definition to determine whether a bus is government-owned or nongovernment-owned.

Selection Process

As discussed in Missouri's Implementation Guidelines Overview, the Department will use a competitive application process to select projects in this award category. For every application, the Department will assign a score to each eligible bus proposed for repower or replacement. The Department will then award VW Trust funds to the applicant to implement the repower or replacement for the bus that receives the highest score. The Department will continue to award funds on a per bus basis in descending order of the score that each bus receives until funding is exhausted in the award category. This process allows the state to partially fund applications and ensure that the best individual projects receive funding regardless of the quality of other projects grouped in the same application. This method also maximizes NO_x emission reductions for this award category.

For area-specific funding pools, applications not funded due to insufficient funds will be allowed to compete in application round 2 for statewide funding. Applications partially funded in round 1 may also compete for round 2 statewide funding for remaining projects.

Vehicle Scoring

The Department will use a 100-point system for the scoring process in all four funding pools. The score is a combination of points for cost effective emission reduction and area of operation. The Department will assign up to 90 points per bus based on the amount of VW Trust fund dollars per pound of lifetime NO_x emissions reduced. Using cost effectiveness as the majority of the score accomplishes goals listed in Missouri's Beneficiary Mitigation Plan. It encourages upgrades and replacements for the highest-polluting buses in operation and it incentivizes applicants to commit to cost share amounts above the minimum required levels, spreading the VW Trust fund dollars to more projects. The use of lifetime emission reductions promotes alternate fueled and all-electric repowers and replacements. The Department assigns incremental emission reductions throughout the useful life of the new bus if the new engine achieves a lower certified NO_x emission level than the federal emission standard. Since the federal emission standard is set for diesel engines, any alternate fueled or all-electric vehicle will realize emission reductions greater than that of its diesel counterpart. Lastly, this scoring method achieves Missouri's overall goal in the Beneficiary Mitigation Plan: maximize NO_x emission reductions. The following details explain the process for assigning points to individual projects based on both cost effectiveness and area of operation.

Cost Effectiveness

The Department will calculate the total lifetime NO_x emission reductions for each individual project on every application received using EPA's Diesel Emissions Quantifier Tool, the information that applicants provide on their applications, and the following assumptions. See the examples in Missouri's Implementation Guidelines Overview for additional details on the cost effectiveness calculation.

- Assumption: All existing and new buses have a total useful life of 25 years.
 - Exception: For any bus that operated in the previous year and is still operating, the Department will assume a minimum remaining life of two years even if that exceeds a 25-year lifetime.
- Method:
 - The Department will first calculate the lifetime emission reductions of the project assuming a diesel-for-diesel replacement.
 - Then:
 - For alternate fueled projects, the Department will compare the NO_x emission certification level of the new engine to the federal NO_x emissions tailpipe standard for the vehicle type. If the new engine has a certified NO_x level lower than the tailpipe standard, the Department will calculate the difference in emissions for the new alternate fueled engine and a new diesel engine over the 25-year life of the new vehicle. The Department will add this difference to the lifetime emission reductions calculated for a diesel-for-diesel project.
 - For all-electric projects, the Department will add the total NO_x emissions of a new diesel engine over a 25-year life to the lifetime emission reductions calculated for a diesel-for-diesel project.
- Once the Department has calculated lifetime NO_x emission reductions for a project, the Department will divide the amount of VW Trust fund dollars requested for that individual project by the total pounds of lifetime NO_x emission reductions. The result is the cost effectiveness of the project.
- Using calculated cost effectiveness, the Department assigns points for the score.
 - For any project where the cost effectiveness exceeds \$50/pound of lifetime NO_x reduced, the Department will award zero points for cost effectiveness.
 - For any project where the cost effectiveness is less than \$50/pound of lifetime NO_x reduced, the Department will award points based on the following equation:

$$1.8 \times (50 - \text{Cost Effectiveness})$$

This equation gives 1.8 points for every \$1 improvement in the cost effectiveness of the project below \$50/pound of lifetime NO_x reduced.

Area of Operation

For three out of the four funding pools, it is possible to score higher than 100 points on an application if the bus operates in certain high-priority counties. For all funding pools, the Department will award up to 10 general points to a project score for the bus's area of operation. In addition to these 10 points, an additional five bonus points are available under the St. Louis and Kansas City area pools, based on the amount of time the bus operates in certain counties.

There are no bonus points available in the outside of St. Louis and Kansas City area pool. In the statewide pool, an additional six bonus points are available based on the amount of time the bus operates in certain counties. This makes 105 total possible points for an application competing in the St. Louis or Kansas City area pools, 100 total possible points for an application competing in the outside of St. Louis and Kansas City area pool, and 106 total possible points for an application competing in the statewide pool. The Department will also assign negative points to applications in the St. Louis and Kansas City area pools for time spent operating outside the state. The following details explain the process for assigning points, deducting points, and adding bonus points based on the bus's area of operation in each of the four funding pools within this award category.

St. Louis Area Pool:

As described in the Eligibility section for this funding pool, a bus must be stationed and spend a minimum of 50 percent of its operating time within the City of St. Louis and the counties of St. Louis, St. Charles, Jefferson, and Franklin.

- Positive Points: For every additional five percent of time operating in this area above the minimum 50 percent eligibility threshold, the Department will add one point to the score. The Department will use the following equation so that partial points are possible:
$$(total\ percent\ in\ area - 50\ percent\ minimum) \times (0.2) = points\ awarded$$
- Negative points: For every five percent of time operating outside the State of Missouri, the Department will deduct one point from the score. The Department will use the following equation so that partial negative points are possible:
$$(percent\ outside\ the\ state) \times (0.2) = points\ deducted$$
- Bonus points:
For every 20 percent of total time operating in the City of St. Louis and St. Louis County, the Department will add one bonus point to the score. The Department will use the following equation so that partial bonus points are possible:
$$(percent\ in\ St.\ Louis\ City\ and\ County) \times (0.05) = bonus\ points\ awarded$$

For every 50 percent of total time operating in St. Charles County, the Department will add one bonus point to the score. The Department will use the following equation so that partial bonus points are possible:

$$(percent\ in\ St.\ Charles\ County) \times (0.02) = bonus\ points\ awarded$$

Kansas City Area Pool:

As described in the Eligibility section for this funding pool, a bus must be stationed and spend a minimum of 50 percent of its operating time within the counties of Clay, Platte, and Jackson.

- Positive Points: For every additional five percent of time operating in this area above the minimum 50 percent eligibility threshold, the Department will add one point to the score. The Department will use the following equation so that partial points are possible:
$$(total\ percent\ in\ area - 50\ percent\ minimum) \times (0.2) = points\ awarded$$
- Negative points: For every five percent of time operating outside the State of Missouri, the Department will deduct one point from the score. The Department will use the following equation so that partial negative points are possible:
$$(percent\ outside\ the\ state) \times (0.2) = points\ deducted$$

Bonus points: For every 20 percent of total time operating in Jackson County, the Department will add one bonus point to the score. The Department will use the following equation so that partial bonus points are possible:

$$(\textit{percent in Jackson County}) \times (0.05) = \textit{bonus points awarded}$$

Outside the St. Louis and Kansas City Area Pool:

As described in the Eligibility section for this funding pool, a bus must be stationed and spend a minimum of 50 percent of its operating time within the State of Missouri but outside the areas deemed eligible for funding in the St. Louis and Kansas City area pools.

- Positive Points: For every additional five percent of time above the minimum 50 percent eligibility threshold that a bus operates within the State of Missouri but outside the St. Louis and Kansas City areas, the Department will add one point to the score. The Department will use the following equation so that partial points are possible:

$$(\textit{total percent in area} - 50 \textit{ percent minimum}) \times (0.2) = \textit{points awarded}$$

Statewide Pool:

As described in the Eligibility section for this funding pool, a bus must be stationed and spend a minimum of 50 percent of its operating time within the State of Missouri.

- Positive Points: For every additional five percent of time operating in the State of Missouri above the minimum 50 percent eligibility threshold, the Department will add one point to the score. The Department will use the following equation so that partial points are possible:

$$(\textit{total percent in state} - 50 \textit{ percent minimum}) \times (0.2) = \textit{points awarded}$$

- Bonus points:

For every 33 percent of time operating in City of St. Louis or St. Louis County, the Department will add two bonus points to the score. The Department will use the following equation so that partial bonus points are possible:

$$(\textit{percent in St. Louis City and County}) \times (0.06) = \textit{bonus points awarded}$$

For every 20 percent of time operating in the counties of Jackson or St. Charles, the Department will add one bonus point to the score. The Department will use the following equation so that partial bonus points are possible:

$$(\textit{percent in St. Charles and Jackson Counties}) \times (0.05) = \textit{bonus points awarded}$$

For every 25 percent of time operating in the counties of Jefferson or Franklin, the Department will add one bonus point to the score. The Department will use the following equation so that partial bonus points are possible:

$$(\textit{percent in Jefferson and Franklin Counties}) \times (0.04) = \textit{bonus points awarded}$$

For every 33 percent of time operating in the counties of Clay and Platte, the Department will add one bonus point to the score. The Department will use the following equation so that partial bonus points are possible:

$$(\textit{percent in Clay and Platte Counties}) \times (0.03) = \textit{bonus points awarded}$$

For every 50 percent of time operating in the counties of Boone and Greene, the Department will add one bonus point to the score. The Department will use the following equation so that partial bonus points are possible:

$$(\text{percent in Boone and Green Counties}) \times (0.02) = \text{bonus points awarded}$$

Contingencies for Unused Funding

If any funding is leftover in any of the area-specific pools in the first round, that funding will go to projects submitted under the other area-specific pools, and those projects will compete for the leftover funding using the statewide pool selection process. If funding remains after that contingency, the Department will save the funds for use in the second application round. If funds remain in the award category after the second application round, the Department will save them for use in the third application round where the Department will reduce the minimum cost share to 25 percent for government-owned bus replacement projects. If funds remain in the award category after the third application round, the Department will save them for use in the fourth application round where the Department will reduce the minimum cost share to 10 percent for government-owned bus repower or replacement projects. By allowing VW Trust funds to cover up to 90 percent of a project in the fourth application round, the Department expects sufficient applications to ensure no funding will remain in the award category after the completion of the final application round. This contingency measure also makes this award category a good candidate to receive funds if there are unused funds in the other award categories to ensure Missouri distributes all VW Trust funds within the 10-year trust period on eligible projects.

Conclusion

The Department will follow the implementation guidelines in this document to distribute the VW Trust proceeds to eligible projects throughout Missouri. All guideline documents are available on the Department's VW Trust webpage: <https://dnr.mo.gov/env/apcp/vw/index.html>. The webpage also includes tables that summarize the implementation guidelines for all of the award categories. The Department may amend these implementation guidelines in the future, if necessary. Any amendments to this document will undergo a public notice and comment process.

The Department will publicly announce when an application round opens under this award category by sending an email to those signed up with the Department VW Trust email distribution list. The Department will also post a request for application document and an application form on Missouri's VW Trust website.