

Russell L. Crane Volkswagen Environmental Mitigation Trust c/o Wilmington Trust, N.A. as Trustee 1100 North Market Street Attn: Capital Markets & Agency Services Wilmington, DE 19890

Dear Russell Crane,

The Missouri Department of Natural Resources has enclosed Missouri's 36th funding request through the Volkswagen Environmental Mitigation Trust (Project ID: Cat 5-EMA4 FY22-001). The department previously sent the enclosed D-4 submission electronically through Intralinks. The enclosure is to fulfill the requirement of a hard copy as required by paragraph 5.2 of the Trust Agreement.

Thank you for attention to this matter. If you have any questions regarding this submission, please contact Shelly Reimer, with the department's Air Pollution Control Program at P.O. Box 176, Jefferson City, MO 65102 or by phone at (573) 526-1836 or email at shelly.reimer@dnr.mo.gov.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

tepter 2 Holl

Stephen M. Hall Director

SMH:cm

Enclosure

APPENDIX D-4 Beneficiary Eligible Mitigation Action Certification

Missouri Funding Request #36

Project ID: Cat 5-EMA4 FY22-001

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary State of Missouri

Lead Agency Authorized to Act on Behalf of the Beneficiary: <u>Missouri Department of Natural Resources</u> (Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)

Action Title:	Marine Engines – FY2022			
Beneficiary's Project ID:	Cat 5-EMA4 FY22-001			
Funding Request No.	36			
Request Type: (select	□ Reimbursement ■ Advance			
one or more)	□ Other(specify):			
Payment to be made to: (select	Beneficiary			
one or more)	□ Other(specify):			
Funding Request & Direction	□ Attached to this Certification			
(Attachment A)	To be Provided Separately			

SUMMARY

Eligible Mitigation AppendixD-2 item (specify): Item 4: FerriesTugs Action Type Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1): Missouri SBMP allocates 23 million to marine engine repower projects which include eligible mitigation action (EMA) categories 3, 4, and 5. This funding request will fund marine engine repower projects which neucload eligible mitigation action (EMA) categories 3, 4, and 5. This funding request will fund marine engine repower projects which are both specific goals liked in Missouri s BMP. Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): Marine engine repowers can significantly reduce No, emissions and have a co-benefit of reducing particulate matter. This project will reduce local elige mission sevore, while also decreasing regionally transported NO, polition that contributes to the formation of ground-level cozen politol. Encouraging upgrades for privately ownedfleedscan reduce operation and maintenance costs thus increasing the company's sustainability and encouraging more private sector fleet upgrades in the future. Estimate of Anticipated NO, Reductions (5.2.3): Per Missouri's BMP, the department estimates that the \$2 million dedicated to marine and locomotive projects. Blased on this percentage, the projects funded through this funding request will achieve an estimated 160-280 tonsof lifetime NO, emission reductions. This funding request will achieve an estimated 160-280 tonsof lifetime NO, to mission reductions the department will submit to the trustee. Identification of Governmental Entity						
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1): Missouri 'sBMP allocates \$2 millionto marine and locomotive projects, which include eligible mitigaton action (EMA) categories 3, 4, and 5. This funding request will fund marine engine repower projects under EMA category 4 throughout the state. The projectivill reduce NO, emissions and encourage upgrades for privately owned fleets in Missouri, which are both specific goals listed in Missouri's BMP. Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): Marine engine repowers can significantly reduce NO, emissions and have a co-benefit of reducing particulate matter. This project will reduce local diese emissions exposure, while also decreasing regionally transported NO, pollution that contributes to the formation of ground-level ozone pollution. Encouraging more privates extor fleet upgrades in the future. Estimate of Anticipated NO, Reductions (5.2.3): Per Missour 's BMP, the department estimates that the \$2 million dedicated to marine and locomotive projects will achieve an estimated 400-700 tors of Ifertime NO, emission reductions. This future, the projects funded through this funding request represents approximately 40 percent of the total funding Missouri hasdedicated to marine and locomotive projects. Based on this percentage, the projects funded through this funding request remission reductions. The department will aclutate the emission reductions from each individual project the department will submit to the trustee. Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1): Missouri Department of Natural Resources, as lead agency for the state of Missouri implementing the Environmental Mitigation Plan, has established a webpage on the VW Trust and mitigation actions, fithes/idm mo acov/envi/acco/ww. Describe how the Beneficiary will make docu		AppendixD-2 item(specify): <u>Item 4: Ferries/Tugs</u>				
Missouri's BMP allocates \$2 million a marine and locomotive projects, which include eligible mitigation action (EMA) categories 3, 4, and 5. This funding request will fund marine engine repower projects under EMA category 4 throughout the state. The project will reduce NO ₄ emissions and encourage upgrades for privately owned fleets in Missouri, which are both specific goals listed in Missouri's BMP. Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): Marine engine repowers can significantly reduce NO ₄ emissions and have a co-benefit of reducing particulate matter. This project will reduce local dicese emissions exposure, while also decreasing regionally transported NO, pollution that contributes to the formation of ground-level ozone pollution. Encouraging upgrades for privately owned fleets can reduce operation and maintenance costs thus increasing the company's sustainability and encouraging more privates exclor fleet upgrades in the future. Estimate of Anticipated NO, Reductions (5.2.3): Per Missour's BMP, the department estimates that the \$2 million dedicated to marine and locomotive projects will achieve an estimated 400-700 tons of lifetime NO, emission reductions. This founding request persents approximately 40 percent of the total funding Missouri has dedicated to marine and locomotive projects. Based on the ispercentage, the projects funded through thisfunding request will achieve an estimated 160-280 tons of lifetime NO, emission reductions. The department will calculate the emission reductions from each individual project the department will submit to the trustee. Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1): Missouri Department of Natural Resources, as lead agency for the state of Missouri implementing the Environmental Mitigaton Plan, has estabilished a webpage on the VW Trust and mitigation actions, flubs//dnr mo ac	Action Type	□ Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal):				
Marine engine repowers can significantly reduce NO, emissions and have a co-benefit of reducing particulate matter. This project will reduce local dieee emissions exposure, while also decreasing regionally transported NO, pollution that contributes to the formation of ground-level ozone pollution. Encouraging upgrades for privately owned fleets can reduce operation and maintenance costs thus increasing the company's sustainability and encouraging more private sector fleet upgrades in the future. Estimate of Anticipated NO, Reductions (5.2.3): Per Missouri 's BMP, the department estimates that the \$2 million dedicated to marine and locomotive projects will achieve an estimated 400-700 tons of lifetime NO, emission reductions. This funding request represents approximately 40 percent of the total funding Missouri has dedicated to marine and locomotive projects. Based on this percentage, the projects funded through this funding request will achieve an estimated 520 tons of lifetime NO, emission reductions. The department will calculate the emission reductions in the semi-annual reports the department will calculate the emission reductions in the semi-annual reports the department will activate the emission reductions in the semi-annual reports the department will activate the emission reductions in the semi-annual reports the department will submit to the trustee. Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1): Missouri Department of Natural Resources, as lead agency for the state of Missouri implementing the Environmental Mitigation Plan, has established a webpage on the VWT rust and mitigation actions, <u>https://dnr.mo.gov/env/apcp/wy</u> . Describe how the Beneficiary will make documentation publicly available (5.2.7.2). The minimum cost share to be covered by goivate fleets that receive funds as part of this funding request will be exity percent of the actual cost of the mitigation	Missouri's BMP allocates \$2 r funding request will fund mari	nillion to marine and locomotive projects, which include eligible mitigation action (EMA) categories 3, 4, and 5. This ne engine repower projects under EMA category 4 throughout the state. The project will reduce NO _x emissions and				
Per Missouri's BMP, the department estimates that the \$2 million dedicated to marine and locomotive projects will achieve an estimated 400-700 tons of lifetime NO, emission reductions. This funding request represents approximately 40 percent of the total funding Missouri has dedicated to marine and locomotive projects. Based on this percentage, the projects funded through this funding request will achieve an estimated 160-280 tons of lifetime NO, emission reductions. The department will calculate the emission reductions from each individual project implemented based on the characteristics of the actual marine engines repowered and include the calculated emission reductions in the semi-annual reports the department will submit to the trustee. Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1): Missouri Department of Natural Resources Describe how the Beneficiary will make documentation publicly available (5.2.7.2). The Missouri Department of Natural Resources, as lead agency for the state of Missouri implementing the Environmental Mitigation Plan, has established a webpage on the VWT rust and mitigation actions. https://documentate.cov/env/apcp/ww Describe any cost share requirement to be placed on each NO _x source proposed to be mitigated (5.2.8). The minimum cost share to be covered by government fleets that receive funds as part of this funding request will be sixty percent of the actual cost of the mitigation action. Some fleet owners may cover more than these minimum amounts. Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). On February 28, 2018, the Department of Interior, including the National Park Service and U.S. Fish and Wildlife Service, and the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Mis	Marine engine repowers can s emissions exposure, while als Encouraging upgrades for priv	significantly reduce NO _x emissions and have a co-benefit of reducing particulate matter. This project will reduce local diese to decreasing regionally transported NO _x pollution that contributes to the formation of ground-level ozone pollution. vately owned fleets can reduce operation and maintenance costs thus increasing the company's sustainability and				
Funds to Ensure Compliance with Applicable Law (5.2.7.1): Missouri Department of Natural Resources Describe how the Beneficiary will make documentation publicly available (5.2.7.2). The Missouri Department of Natural Resources, as lead agency for the state of Missouri implementing the Environmental Mitigation Plan, has established a webpage on the VW Trust and mitigation actions, https://dnr.mo.gov/env/apcp/vw . Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8). The minimum cost share to be covered by private fleets that receive funds aspart of this funding request will be sixty percent of the actual cost of the mitigation action. Some fleet owners may cover more than these minimum amounts. Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (52.9). On February 28, 2018, the Department notified the Department of Interior, including the National Park Service and U.S. Fish and Wildlife Service, and the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive notice from any other federal agency indicating interest in these funds. If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have his torically borne a dis proportionate share of the adverse impacts of such emissions (5.2.10). Ferries and tugboats operate near ports and urban cores that bear a disproportionate amount of the air pollution burden. These projects will help	Per Missouri's BMP, the depa lifetime NO _x emission reduction locomotive projects. Based or emission reductions. The dep	artment estimates that the \$2 million dedicated to marine and locomotive projects will achieve an estimated 400-700 tons of ons. This funding request represents approximately 40 percent of the total funding Missouri has dedicated to marine and n this percentage, the projects funded through this funding request will achieve an estimated 160-280 tons of lifetime NO _x partment will calculate the emission reductions from each individual project implemented based on the characteristics of the				
The Missouri Department of Natural Resources, as lead agency for the state of Missouri implementing the Environmental Mitigation Plan, has established a webpage on the VW Trust and mitigation actions, https://dnr.mo.gov/env/apcp/vw . Describe any cost s hare requirement to be placed on each NOx source proposed to be mitigated (5.2.8). The minimum cost share to be covered by private fleets that receive funds as part of this funding request will be sixty percent of the actual cost of the mitigation action. The minimum cost share to be covered by government fleets that receive funds as part of this funding request will be twenty-five percent of the actual cost of the mitigation action. Some fleet owners may cover more than these minimum amounts. Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). On February 28, 2018, the Department notified the Department of Interior, including the National Park Service and U.S. Fish and Wildlife Service, and the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive notice from any other federal agency indicating interest in these funds. If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10). Ferries and tugboats operate near ports and urban cores that bear a disproportionate amount of the air pollution burden. These projects will help	Funds to Ensure Complia	ance with Applicable Law (5.2.7.1):				
established a webpage on the VW Trust and mitigation actions, https://dnr.mo.gov/env/apcp/vw. Describe any cost share requirement to be placed on each NO _x source proposed to be mitigated (5.2.8). The minimum cost share to be covered by private fleets that receive funds as part of this funding request will be sixty percent of the actual cost of the mitigation action. The minimum cost share to be covered by government fleets that receive funds as part of this funding request will be twenty-five percent of the actual cost of the mitigation action. Some fleet owners may cover more than these minimum amounts. Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). On February 28, 2018, the Department notified the Department of Interior, including the National Park Service and U.S. Fish and Wildlife Service, and the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive notice from any other federal agency indicating interest in these funds. If applicable, describe how the mitigation action will mitigate the impacts of NO _x emissions on communities that have his torically borne a disproportionate share of the adverse impacts of such emissions (5.2.10). Ferries and tugboats operate near ports and urban cores that bear a disproportionate amount of the air pollution burden. These projects will help	Describe how the Benefi	ciary will make documentation publicly available (5.2.7.2).				
The minimum cost share to be covered by private fleets that receive funds as part of this funding request will be sixty percent of the actual cost of the mitigation action. The minimum cost share to be covered by government fleets that receive funds as part of this funding request will be twenty-five percent of the actual cost of the mitigation action. Some fleet owners may cover more than these minimum amounts. Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). On February 28, 2018, the Department notified the Department of Interior, including the National Park Service and U.S. Fish and Wildlife Service, and the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive notice from any other federal agency indicating interest in these funds. If applicable, describe how the mitigation action will mitigate the impacts of NO _x emissions on communities that have his torically borne a disproportionate share of the adverse impacts of such emissions (5.2.10). Ferries and tugboats operate near ports and urban coresthat bear a disproportionate amount of the air pollution burden. These projects will help						
mitigation action. The minimum cost share to be covered by government fleets that receive funds as part of this funding request will be twenty-five percent of the actual cost of the mitigation action. Some fleet owners may cover more than these minimum amounts. Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). On February 28, 2018, the Department notified the Department of Interior, including the National Park Service and U.S. Fish and Wildlife Service, and the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive notice from any other federal agency indicating interest in these funds. If applicable, describe how the mitigation action will mitigate the impacts of NO _x emissions on communities that have his torically borne a disproportionate share of the adverse impacts of such emissions (5.2.10). Ferries and tugboats operate near ports and urban cores that bear a disproportionate amount of the air pollution burden. These projects will help	Describe any cost share a	requirement to be placed on each NO_x source proposed to be mitigated (5.2.8).				
On February 28, 2018, the Department notified the Department of Interior, including the National Park Service and U.S. Fish and Wildlife Service, and the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive notice from any other federal agency indicating interest in these funds. If applicable, describe how the mitigation action will mitigate the impacts of NO _x emissions on communities that have his torically borne a disproportionate share of the adverse impacts of such emissions (5.2.10). Ferries and tugboats operate near ports and urban coresthat bear a disproportionate amount of the air pollution burden. These projects will help	mitigation action. The minimu	m cost share to be covered by government fleets that receive funds as part of this funding request will be twenty-five				
the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive notice from any other federal agency indicating interest in these funds. If applicable, describe how the mitigation action will mitigate the impacts of NO _x emissions on communities that have his torically borne a disproportionate share of the adverse impacts of such emissions (5.2.10). Ferries and tugboats operate near ports and urban coresthat bear a disproportionate amount of the air pollution burden. These projects will help	Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).					
borne a disproportionate share of the adverse impacts of such emissions (5.2.10). Ferries and tugboats operate near ports and urban coresthat bear a disproportionate amount of the air pollution burden. These projects will help	the Department of Agriculture notice from any other federal	e, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive agency indicating interest in these funds.				
Ferries and tugboats operate near ports and urban cores that bear a disproportionate amount of the air pollution burden. These projects will help						
		• • • •				

ATTACHMENTS

(CHECK BOX IF ATTACHED)

	Attachment A	Funding Request and Direction.
Ø	Attachment B	Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4).
Ø	Attachment C	Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11).
Q	Attachment D	Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6). [Attach only if project involves vendor expenditures exceeding \$25,000.]
	Attachment E	DERA Option (5.2.12). [Attach only if using DERA option.]
	Attachment F	Attachment specifying amount of requested funding to be debited against each beneficiary's allocation (5.2.13). [Attach only if this is a joint application involving multiple beneficiaries.]

CERTIFICATIONS

By submitting this application, the Lead Agency makes the following certifications:

- 1. This application is submitted on behalf of Beneficiary State of Missouri, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.
- 2. Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.
- 3. This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.
- 4. Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)
- 5. Beneficiary will maintain and make publicly available all documentation submitted in support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

in 75 Ad

3/28/2022

STEPHEN M. HALL [NAME]

AIR POLLUTION CONTROL **PROGRAM DIRECTOR** [TITLE]

MISSOURI DEPARTMENT OF NATURAL RESOURCES [LEAD AGENCY]

For

STATE OF MISSOURI [BENEFICIARY]

ATTACHMENT B

Beneficiary Eligible Mitigation Action Certification – Missouri Funding Request #36 Project ID: Cat 5-EMA4 FY22-001

Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline

PROJECT MANAGEMENT PLAN

PROJECT SCHEDULE AND MILESTONES

Milestone	Date
DNR provides notice of availability of mitigation action funds	August 2021
Due date for project sponsors to submit proposals to lead agency	October 2021
DNR provides approval of successful project sponsors' proposals	November 2021
Project sponsors complete procurement and submit purchase orders	Project approval + 1 month
DNR submits attachment A to cover annual admin and project awards	Project approval +1 month
Trustee provides funds to DNR as requested in the attachment A	Project approval +1.5 months
Marine engines delivered to project sponsors and installed	Project approval + 3 months
Project sponsors submit evidence of engine scrapping, invoices, proof of payment, and other documents required for reimbursement	Project approval + 3.5 months
DNR reviews, requests corrections if necessary, certifies project completion, and provides reimbursement	Project approval + 4 months
DNR reports to Trustee on status of and expenditures with mitigation actions completed and underway	Jan. 31 and July 31 each year

This process will repeat again next state fiscal year (July 2020-June 2021).

PROJECT BUDGET

Period of Performance: July 2019 – June 2021						
Budget Category	Total Approved Budget	Share of Total Budget to be Funded by the Trust	Cost-Share, if applicable (Project Sponsors)			
1. Equipment Expenditure	\$	\$	\$			
2. Contractor Support (Provide List of Approved Contractors as Attachment with approved funding ceilings)	\$0	\$0	\$0			
3. Subrecipient Support (Provide List of Approved Subrecipients or Grant Awardees as Attachment with approved funding ceilings)	\$0	\$0	\$0			
4. Administrative ¹	\$0	\$0	\$0			
Project Totals	\$	\$	\$			
Percentage	100%	%	%			

¹Subject to Appendix D-2 15% administrative cap.

Beneficiary Eligible Mitigation Action Certification – Missouri Funding Request #36 Project ID: Cat 5-EMA4 FY22-001

PROJECTED TRUST ALLOCATIONS

	(July	FY 2019 2018-June 2019)	FY 2020	FY 2021-28
1. Anticipated Annual Project Funding Requests to be paid through Trust	\$	7,348,201	\$ 14,723,117	\$ 19,080,733
2. Anticipated Annual Cost Share	\$	9,630,831	\$ 18,708,813	\$ 24,088,846
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$	16,979,032	\$ 33,431,930	\$ 43,169,579
4. Cumulative Trustee Payments made to Date Against Cumulative Approved Beneficiary Allocation	\$	-	\$ 7,348,201	\$ 22,071,318
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	\$	7,348,201	\$ 14,723,117	\$ 19,080,733
6. Total Funding Allocated to Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$	7,348,201	\$ 22,071,318	\$ 41,152,051
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$	41,152,051	\$ 33,803,850	\$ -
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 7 minus line 5)	\$	33,803,850	\$ 19,080,733	\$ -

ATTACHMENT C

Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11)

Records of the applicant, selected projects, and financial reports will be made available on the department's VW webpage in the form of a report to coincide with reporting requirements listed in the trust. Records may also be obtained through the state sunshine request portal.

ATTACHMENT D

Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6)

Beneficiary Eligible Mitigation Action Certification – Missouri Funding Request #36 Project IDs: Cat 5-EMA4 FY22-001

Engine Type	Engine Cost	Additional Components	Labor	Total
Auxiliary	\$10,000 - \$30,000	\$2,500 - \$10,000	\$2,500 - \$10,000	\$15,000 - \$50,000
Propulsion (150-350 HP)	\$20,000 - \$75,000	\$20,000 - \$75,000	\$15,000 - \$50,000	\$65,000 - \$150,000
Propulsion (350-600 HP)	\$75,000 - \$200,000	\$50,000 - \$200,000	\$25,000 - \$100,000	\$150,000 - \$500,000
Propulsion (600-1,000 HP)	\$200,000 - \$400,000	\$100,000 - \$250,000	\$50,000 - \$150,000	\$350,000 - \$800,000

Tugboat/Ferry Repower Projects

The department reviewed invoices for tugboat and ferry engine repower projects that fleets have applied for in recent funding programs the department administered. The cost for marine vessel repowers depend on many variables such as engine type (propulsion or auxiliary), engine size, the number of engines, and additional components needed for the new engines to function properly (propellers, gear shafts, gear boxes, coolers, wiring, hull work, etc.). The price estimates above are per engine (multi-engine projects would double or triple the costs listed above).