

Diesel Emission Reduction Programs - State of Iowa

EPA Workshop on Diesel Emission Reduction
Funding Opportunities
November 19, 2019

Topics

- ▶ Volkswagen settlement
- ▶ DERA
- ▶ Iowa's Clean Air Attainment Program



- ▶ Volkswagen settlement of 2016 EPA complaints of Clean Air Act violations
 - ▶ Sale of approximately 580,000 diesel motor vehicles with “defeat devices”
 - ▶ Result is settlements that invest in projects that reduce emissions of nitrogen oxides
- ▶ Settlements
 - ▶ Zero-Emission Vehicle (ZEV) Investments - Electrify America
 - ▶ Environmental Mitigation Trust allocations to states



▶ ZEV Investments - Electrify America

- ▶ VW required to spend \$2 billion over 10 years
 - ▶ ZEV infrastructure
 - ▶ Access to ZEV's
 - ▶ ZEV education
- ▶ Three existing Iowa locations (all along I-80)
 - ▶ Council Bluffs: Walmart parking lot on Manawa Centre Drive
 - ▶ Waukee: Kum & Go off Grand Prairie Parkway
 - ▶ Williamsburg: Casey's off Williamsburg interchange



- ▶ Environmental Mitigation Trust
 - ▶ Iowa's allocation \$21 million
 - ▶ Administered by Iowa DOT working with state agency working group
 - ▶ Allocation within Iowa based on Beneficiary Mitigation Plan
 - ▶ Priorities
 - ▶ Achieve significant, quantifiable reductions in NOx emissions
 - ▶ Maximize cost effectiveness
 - ▶ Ensure health and environmental benefits for adversely impacted areas
 - ▶ Complement other programs/initiatives
 - ▶ Implement Iowa Energy Plan
- ▶ VW website: iowadot.gov/VWSettlement/default.aspx



STATE OF IOWA

VOLKSWAGEN CLEAN AIR ACT PARTIAL SETTLEMENTS

Mitigation Category	Funding Percentage	Estimated Application Cycle Total	Estimated Trust Fund Total
Class 4-8 Buses	45%	\$3,150,000	\$9,450,000
Freight and Port Drayage Trucks	15%	\$1,050,000	\$3,150,000
Non-Road Transport and Equipment	10%	\$700,000	\$2,100,000
ZEV	15%	\$1,050,000	\$3,150,000
DERA	15%	N/A	\$3,150,000
Total	100%		\$21,000,000



- ▶ Awards from the first round of funding announced in June
 - ▶ Buses
 - ▶ 10 transit (diesel)
 - ▶ 97 school buses (56 propane, 41 diesel)
 - ▶ Trucks: 36 trucks (Des Moines, Fareway, Sysco)
 - ▶ Non-road transport and equipment: two electric forklifts and two tug boat engines
- ▶ ZEV Round One: Program announcement in December 2019 seeking applications for grants to install charging infrastructure
- ▶ Bus/Truck/Non-Road Transport Round Two: Also announced in December

Diesel Emission Reduction Act (DERA) - State Funding

- ▶ A portion of DERA funds are allocated to states for projects that reduce diesel emissions
- ▶ Since October 2017, Iowa DOT has administered this funding (Iowa DNR administered prior)
- ▶ DERA website: <https://iowadot.gov/dera/>
- ▶ Applications typically due in August
- ▶ 2019 funding allocation

Funding source	Amount
EPA base allocation	\$319,050
Iowa allocation from VW	\$319,050
EPA incentive bonus	\$159,525
Total	\$797,625

DERA Eligibility

- ▶ Eligible applicants
 - ▶ For-profit
 - ▶ Non-profit
 - ▶ Public entities
- ▶ Eligible projects (very broad)
 - ▶ Exhaust control devices
 - ▶ Idle reduction technologies
 - ▶ Aerodynamic technologies
 - ▶ Low rolling resistance tires
 - ▶ Cleaner fuels and additives
 - ▶ Clean alternative fuel conversion
 - ▶ Engine upgrade and remanufacturing systems
 - ▶ Certified engine replacement
 - ▶ Vehicle and equipment replacement

2019 DERA Awards

- ▶ **School Buses:** replace diesel with diesel, diesel with gas, diesel with propane (nine school districts)
- ▶ **Henry County** – Replace one class 8 diesel-powered single-axle dump truck with one new class 8 diesel-powered single-axle dump truck - up to \$33,750
- ▶ **Hy-Vee** – Replace one diesel-powered terminal truck with one new all-electric terminal truck - \$148,274
- ▶ **Iowa Steel & Wire Company** – Replace one diesel-powered forklift with one new all-electric forklift and charging infrastructure - up to \$36,225
- ▶ **Lee County** – Replace two class 8 diesel-powered dump truck with two new class 8 low-NOx diesel-powered dump truck - up to \$119,000
- ▶ **Lime Rock Springs** – Replace one class 8 diesel-powered truck and one class 6-7 diesel-powered truck with one new class 8 and class 6-7 diesel-powered trucks - up to \$56,250

Iowa's Clean Air Attainment Program

- ▶ Iowa's Clean Air Attainment Program (ICAAP) was created in 1994.
- ▶ Modeled after the federal Congestion Mitigation and Air Quality Improvement Program established in 1991.
- ▶ Available to cities, counties, public transit agencies, MPOs, RPAs, and state agencies. Private non-profit or for-profit entities when co-sponsored by an eligible public agency through an annual application program.
- ▶ Purpose is to award funds to projects with the highest potential for reducing transportation-related congestion and air pollution.
- ▶ Applications due October 1
- ▶ https://iowadot.gov/systems_planning/Grant-Programs/Iowa-Clean-Air-Attainment-Program-ICAAP

Project Evaluation Criteria

- ▶ Vehicle traffic flow improvements (25 points)
- ▶ Vehicle miles of travel (VMT) or single-occupant vehicle (SOV) reduction (25 points)
- ▶ Estimated vehicle emission reduction (20 points)
- ▶ Degree of transportation-related air pollution or traffic congestion (15 points)
- ▶ Project cost effectiveness relative to air quality benefits (30 points)

Available Funding and Application Summary (2018 Round)

- ▶ Available Funding:
 - ▶ Iowa's Clean Air Attainment Program funds available: \$4,000,000

- ▶ Application Summary:
 - ▶ Total number of projects: 15
 - ▶ Total project costs: \$24,365,688
 - ▶ Total amount requested: \$8,136,289

Awarded Projects

PROJECT NAME	SPONSOR	SCORE	TOTAL PROJECT COST	REQUESTED AMOUNT (% of Total Project Cost)	RECOMMENDED AMOUNT (% of Total Project Cost)
Adaptive Traffic Signal Control System Expansion	West Des Moines	80.6	\$410,400	\$328,320 (80%)	\$328,320 (80%)
Smart Traffic Routing with Efficient and Effective Traffic Signals (STREETS)	Dubuque	80.4	\$3,366,250	\$818,250 (24%)	\$818,250 (24%)
West Ames Changes: (New Expansion Route #12 Lilac & Bus; Added frequency (#1 Red, #11 Cherry, #7 Purple)	Ames Transit Agency	79.6	\$905,817	\$702,848 (78%)	\$702,848 (78%)

Awarded Projects

PROJECT NAME	SPONSOR	SCORE	TOTAL PROJECT COST	REQUESTED AMOUNT (% of Total Project Cost)	RECOMMENDED AMOUNT (% of Total Project Cost)
Euclid/Douglas Avenue Crosstown (Route 50) Year 2	Des Moines Area Regional Transit Authority	74.2	\$393,744	\$314,995 (80%)	\$314,995 (80%)
Traffic Signal Enhancements Project	Waukee	71.8	\$1,344,000	\$1,075,000 (80%)	\$1,075,000 (80%)
U.S. Highway 61 (Roosevelt Avenue) Traffic Signal Control Systems Upgrades and Fiber Network Improvements	Burlington	70.6	\$1,232,000	\$985,600 (80%)	\$760,587 (62%)

Projected Annual Benefits of Awarded Projects

- ▶ Reduction of Vehicle Hours of Travel: 522,910
- ▶ Reduction of Vehicle Miles of Travel: 4,623,090
- ▶ Improved Air Quality
 - ▶ Reduced CO, VOCs, & NOx Emissions: 329,742 lbs.

Questions?

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