

Diesel Emission Reduction Act (DERA) Program Overview

Information Session

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U.S. EPA Region 9

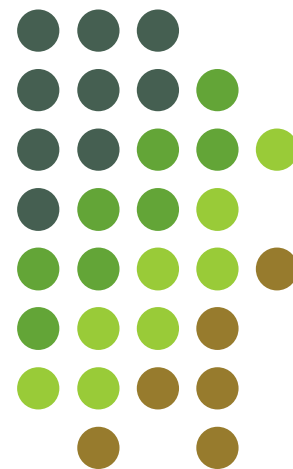
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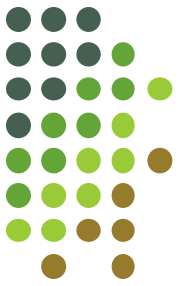
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Overview of this Diesel Emission Reduction Act (DERA) Tribal Session



Overview of the DERA Programs



DERA National & Rebate Programs



2021 DERA Tribal & Insular Area Program



VW Mitigation Trust & DERA



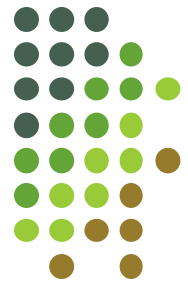
Timeline & Important Dates



Resources & Next Steps



Past Successful Tribal Grants



Moving Toward Cleaner Air

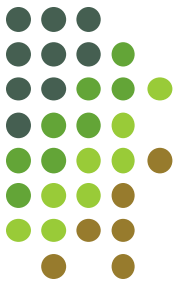
Reducing emissions that impact our health



- Approximately 10 million legacy diesel engines are still in use
- Diesel engines emit NO_x , $\text{PM}_{2.5}$, and other pollutants, which contribute to serious public health problems
- DERA provides grants to accelerate the upgrade and turnover of diesel fleets
- DERA Tribal and Insular Areas competitive Request For Applications (RFA) NO required cost-share matching funds!

Reducing emissions from diesel engines is one of the most important air quality challenges in the US₃

DERA: Reduce Diesel Emissions



- Reduce diesel air emissions from medium- and heavy-duty vehicles or nonroad engines
- Scrap an existing, currently operating older diesel engine; replace it with new, cleaner similar vehicle type
- Some eligible diesel vehicles and equipment include:

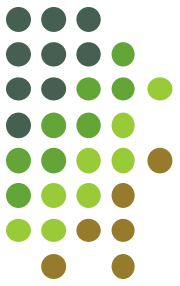


Eligible Diesel Vehicles, Engines & Equipment



- **Buses**
 - Transit, school, shuttle
- **Class 5-8 medium & heavy-duty highway trucks**
 - Delivery, long- & short haul, trash, fire, rescue, dump, utility
- **Marine engines**
- **Locomotive engines**
- **Nonroad engines, equipment or vehicles**
 - Construction
 - Agriculture
 - Forklifts
 - Cargo handling- at a port, airport or warehouse
 - Mining
 - Primary energy production- stationary generators & pumps

Eligible Truck & Bus Classifications



CLASS 1
6,000 lb & less

Minivan Utility van
Multi-purpose Full-size pickup

CLASS 2
6,001 to 10,000 lb

Minivan Utility van
Full-size pickup Step van

CLASS 3
10,001 to 14,000 lb

Walk-in Conventional van
City delivery

CLASS 4
14,001 to 16,000 lb

Conventional van City delivery
Large walk-in

(This entire section is crossed out with a large red 'X')

CLASS 5
16,001 to 19,500 lb

Bucket
City delivery Large walk-in

CLASS 6
19,501 to 26,000 lb

Beverage Single-axle van
School bus Rack

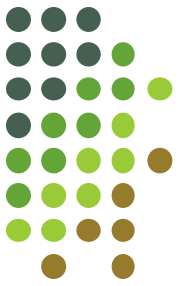
CLASS 7
26,001 to 33,000 lb

Refuse Furniture
City transit bus Medium conventional

CLASS 8
33,001 lb & over

Dump Cement
Heavy conventional COE sleeper

DERA Funding Programs



School Bus
Rebates

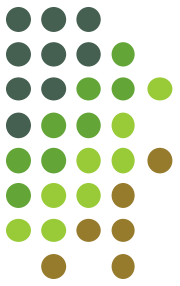


National
Grants



Tribal & Insular
Area Grants

DERA School Bus Rebate Program



- Very easy to apply!
- Eligible applicants
 - Government agency school districts and municipalities
 - Private entities that operate school buses
- Application period opens in the Fall
 - Old bus must be scrapped and replaced within a year
 - \$20,000-\$65,000 per bus, pending new bus fuel type
 - May request up to 10 buses to be replaced
 - 1-page application form
 - Separate from other DERA funding programs
- Applicants are selected in a lottery
 - Oversubscribed- random selection of applicants to fund
- More information [epa.gov/dera/rebates](https://www.epa.gov/dera/rebates)



School Bus Rebates



National Grants



Tribal and Insular Area Grants



Past Grants

DERA National Grant Program

- National grant program, very competitive
- Eligible entities- have diesel fleets or are working on transportation/air quality:
 - Tribal, regional, state, local, or port agencies
 - Nonprofit organizations
- Must scrap and replace or upgrade an existing diesel vehicle, equipment or engine
- Evaluation Criteria points tied to poor air quality areas
- Eligible entities can partner with public and private fleets to pass down grant funds
- Request for Applications (RFA) out in December



School Bus Rebates



National Grants

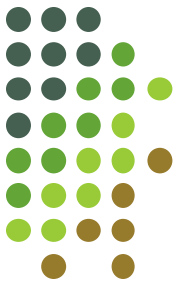


Tribal and Insular Area Grants



Past Grants

DERA Tribal & Insular Area Grant Program



- **National competitive RFA out soon!**
- NO mandatory cost share requirement
- Separate funding opportunity than other DERA programs
- More flexible than the DERA National Grant Program
- Recognize tribes & insular areas have unique administrative, technical & financial considerations
- Separate review of applications by Tribal and Insular Area applicants

“Insular Area”:

Guam, American Samoa, Commonwealth of the Northern Mariana Islands & U.S. Virgin Islands



School Bus Rebates



National Grants

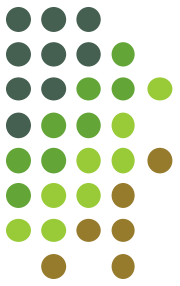


Tribal and Insular Area Grants



Past Grants

2021 Tribal & Insular Area Grant Program Overview



- **Eligible entities:**

- Tribal governments
- Intertribal consortia
- Government agencies:
 - With diesel fleets or
 - Working on transportation or air quality

- Grant funds may be passed down to private or public fleets via subgrants, contracts or rebates/participant support costs

- **New This Year:** no mandatory cost-share funding required by the tribe!

RFA:

- **Open: End of April**
- **Close: Mid-July**



School Bus Rebates



National Grants

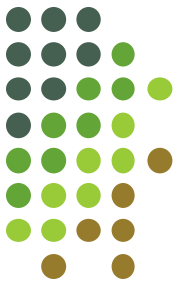


Tribal and Insular Area Grants



Past Grants

Tribal & Insular Area Program



Benefits of the Tribal-Insular Area Program compared to the National Grant Program:



1. Longer Application Period

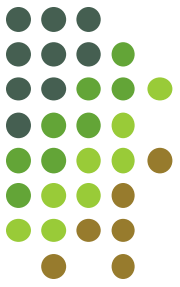


2. Less Stringent Eligibility Requirements for Vehicles & Equipment



3. **No Mandatory Cost Shares**

2021 Tribal & Insular Area Program Overview



Tribal Grants

Available Funding:
~\$4.5 million

Funding per
Application: \$800,000

Maximum Applications
per Applicant: 2

Insular Area Grants

Available Funding:
~\$500,000

Funding per
Application: \$250,000

Maximum Applications
per Applicant: 2



School Bus
Rebates



National
Grants



Tribal and
Insular Area
Grants



Past Grants

Existing Diesel Vehicles

- Must be fully operational
- Must have at least 2 years of remaining life
- Owner must have owned the vehicle 2 years prior
- On-highway trucks & buses (2 years prior):
 - Must have accrued +5,000 miles/year
- Nonroad, marine/ boats & locomotives engines (2 years prior):
 - Agricultural pumps: +250 hours/year
 - All other nonroad engines: +300 hours/year
 - Locomotives and marine: +500 hours/year
- Documentation Requirements:
 - Must attest to the ownership, usage & remaining life requirements



School Bus
Rebates



National
Grants



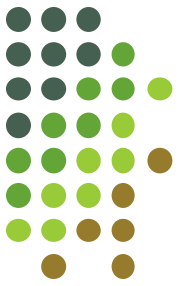
Tribal and
Insular Area
Grants



Past Grants

Eligible New Vehicles & Upgrades

- Replace a vehicle or equipment with:
 - EPA certified engine: diesel, natural gas, propane fuel
 - Low NO_x engine
 - Zero-emission electric or hydrogen engine
- Highway, marine shore-power or locomotive idle reduction technologies
- Electric parking space technologies
- Certified remanufactured system
- Retrofits:
 - Exhaust after-treatment
 - Engine upgrades
 - Hybrid systems
 - Fuel & additives
- Aerodynamic truck trailers or low rolling resistant tires
- Alternative fuel conversions



School Bus Rebates



National Grants



Tribal and Insular Area Grants



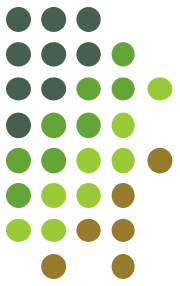
Past Grants

Volkswagen (VW) Settlement

- Violated the Clean Air Act for ~590,000 diesel vehicles with defeat devices
- \$2.9 billion available to remediate NO_x emissions
 - \$55 million to the Tribes and Alaska Native Villages
 - Funds distributed annually through 2021
- Various Eligible Mitigation Actions or project types
 - Options #1-9
 - Option #10 = “DERA Option”
- March 16, 2021 was the deadline
 - To become a program beneficiary for (likely) the final round of Settlement funding
- More info:



www7.nau.edu/itep/main/volkswagensettlement/



School Bus Rebates



National Grants



Tribal and Insular Area Grants



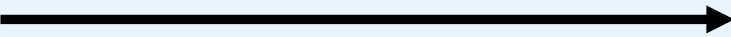

Past Grants


VW & DERA Option #10

- Must be a certified beneficiary last March 2021
- Must apply to EPA's DERA Tribal & Insular Areas Grant Program RFA
- VW funds can be used for non-federal voluntary match



Timeline & Important Dates:

TRIBAL & INSULAR AREA RFA	
End of April	RFA Opens
	
May–June (Dates TBD)	Info Webinar #1
	Info Webinar #2
	Info Webinar #3
Mid-July	RFA Closes
Aug. 13 th	Notification of Awards
	

VW DEADLINES	
June 30 th	Trustee submits Notice of Allocation to Beneficiaries
	
Aug. 30 th	Deadline for Beneficiary EMA Certification



School Bus Rebates



National Grants



Tribal and Insular Area Grants



Past Grants

Application Evaluation Process

Step 1: Threshold Criteria Review

Must meet ALL threshold criteria to move on to Step 2

Step 2: Evaluation Criteria

Below – points assigned to each

Evaluation Criteria

Project Summary & Approach

Project Location

Environmental Justice & Community Benefits

Community Engagement & Partnerships

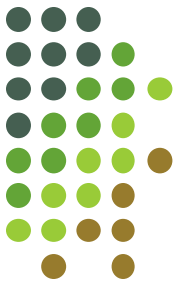
Project Sustainability

Environmental Results – Outputs, Outcomes & Performance Measures

Programmatic Capability & Past Performance

Budget

Applicant Fleet Description



School Bus Rebates



National Grants

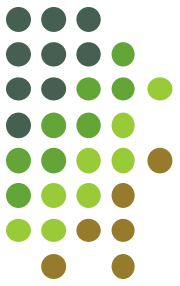


Tribal and Insular Area Grants



Past Grants

Next Steps: Tribal & Insular Area RFA



Register on Grants.gov

- Applications submitted electronically
- **Register grants.gov ASAP**, +3 weeks before RFA closes!
- Grants.gov offers 24-hour support
- **Must have a DUNS number & current registration with System for Award Management (SAM)**, which may take many weeks to receive

RFA: epa.gov/dera/tribal

- DERA website: application tools, resources, references & templates
- Tentative webinars: May 12, 18 & 20
- Previously funded Region 9 tribal projects: westcoastcollaborative.org/projects-list.htm
- EPA helpline: DEQhelp@epa.gov

RFA:

- Open:
~End of April
- Close:
~Mid-July

Sign-up for DERA updates: tinyurl.com/y2axl8bg



School Bus Rebates



National Grants



Tribal and Insular Area Grants



Past Grants



GILA RIVER INDIAN COMMUNITY DEPARTMENT OF ENVIRONMENTAL QUALITY

2015 & 2017 DERA Grants

Ryan Eberle, P.E.
Air Program Manager



GRIC DERA Summary

	2015 DERA	2017 DERA
Type	Vehicle Replacement	Vehicle Replacement
Vehicles	Heavy Construction Equipment (5)	School Buses (2)
Sub-Recipients	Gila River Farms Community Services Department	Sacaton Elementary School District
Award Date	12/28/15	4/26/17
Date Completed	9/28/18	3/29/19
Project Cost	\$778,465	\$308,465



2015 DERA

Equipment Name	Manufacturer	Existing				Replacement			
		Model No.	Engine Model Year	HP Rating	Tier	Model No.	Engine Model Year	HP Rating	Tier
Backhoe	John Deere	310SG	2006	91	2	310SL	2016	99	4
Backhoe	John Deere	710D	1999	120	1	710G	2016	130	4
Loader	John Deere	624H	2001	172	1	624K	2017	186	4
Grader	John Deere	770D	2007	215	2	772G	2015	275	4
Skid Steer	Bobcat	873	2003	73	1	CAT 262D	2018	74	4



2015 DERA





2017 DERA

Equipment Name	Manufacturer	Existing				Replacement			
		Model No.	Engine Model Year	HP Rating	Tier	Model No.	Engine Model Year	HP Rating	Tier
School Bus	Thomas	84-pass	2005	275	N/A	84-pass	2018	300	N/A
School Bus	BlueBird	35-pass	2004	210	N/A	37-pass	2018	220	N/A



2017 DERA





Lessons Learned

- Partners
- Scrapping
- Replacement Equipment Modifications
- Partner Vehicle Information
- Back-up Plan





Partners

- Identifying Partners
 - Who has \$\$\$ now?
- Sub-Recipients vs Sub-Awardees
- Who's Paying (and how)?
 - Sub-Recipient Contract with Vendor
- Memorandum of Agreement (MOA)





Scrapping

- Hole in Block and Cut Frame
- No Frame?





Equipment Modifications

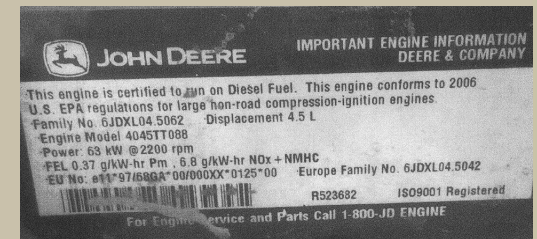
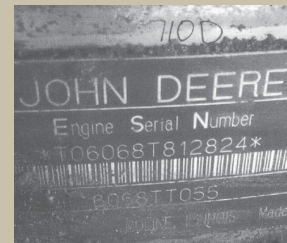
- 770D (4x6) to 772G (6x6)
- Same 9.0L Engine – 28% HP Increase
- No-Cost Equipment Change
 - Under total project cost

Equipment Name	Manufacturer	Existing				Replacement			
		Model No.	Engine Model Year	HP Rating	Tier	Model No.	Engine Model Year	HP Rating	Tier
Grader	John Deere	770D	2007	215	2	772G	2015	275	4

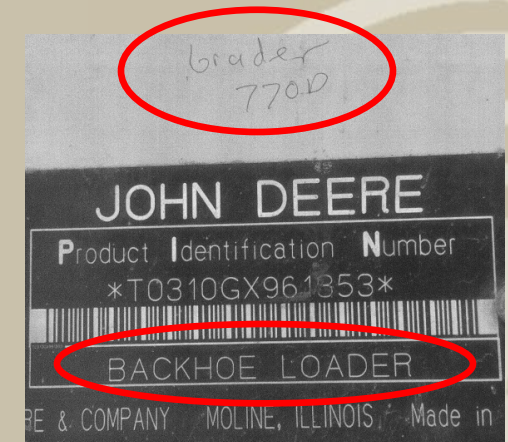


Partner Vehicle Information

- What Did Partner Provide?
 - Annual Use
 - Hours, Mileage, Fuel, Idling???
 - Original Engine Info



Current Tier Level (Nonroad)	Current Standard Level for PM and NOx or NMHC+NOx	Fuel Type	Amount of Fuel Used (gal/year)	Annual Miles per vehicle (Highway)	Annual Usage Rate (Hours per engine) (Nonroad)	Annual Idling hours (per engine)
Tier 1	NOx: 9.2 g/kW-hr; PM: 0.54 g/kW-hr	Diesel (ULSD), 15 ppm	4000	N/A	2000	Unknown
Tier 2	NMHC+NOx: 6.6 g/kW-hr; PM 0.20 g/kW-hr	Diesel (ULSD), 15 ppm	4250	N/A	2400	Unknown





Original Engine Info

- <https://jdpsproductdata.deere.com>

7/14/2015

JDPS Product Data System

Search Results for DW770DX613240 :

Serial Number	Base Code	Model	Material	Manufactured Date	Parts Catalog No.
RG6081H297891	N/A	6081HDW13	RG35047	2007-04-13	Click Here

Rating	EPA Family	EUR Family	Emissions Label Part No.	EPA Certificate	CARB Certificate
6081HDW13	5JDXL08.1037	5JDXL08.1037	R523788	JDX-NR7-05-01	U-R-004-0194

Other Manufacturers:



Back-Up Plan

- Actual bids are cheaper (or more expensive)
 - Prepare a vehicle inventory (survey)

Owner	Vehicle/ Equipment Description	Make	Model	Equipment Model Year	Engine Model Year	Engine Horsepower Rating	Annual Hours Used	Total Engine Hours
D7	BACKHOE	CAT	420E	2007	2007	2160@1800	300	2140
D7	SKIP LOADER	CAT	414E	2007	2007	2160@1800	350	2500
D6	Backhoe	Caterpillar	420E	2008	E105719 2008	93	140	31199
D6	Bobcat	Bingham Equipment	873G	2001	Diamante 2008	275	101	1623
D5	Backhoe	John Deere 310SJ	T0310SJ173125	2008	2008	74	243	2815
D5	Generator	Whisper Watt/MQPower	DCA-25SSIU3	2010	2010	34	256.6	2310
D5	Generator	Whisper Watt/MQPower	DCA-25SSIU3	2009	2009	34	11,068	99609



Additional Thoughts

- Communication w/ EPA Project Officer & Technical Lead
- Fleet Standardization
- Agency Procurement Process





Thank You!

Ryan Eberle, P.E.

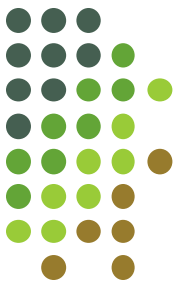
Air Quality Program Manager

520-796-3781

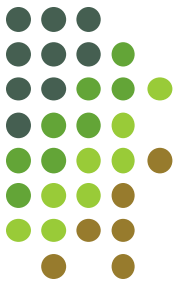
ryan.eberle@gric.nsn.us



Thank You!



- Type your name & questions into the chat box
- Or unmute yourself by clicking the microphone icon in the upper right screen
 - Or push *6 if you've called in via your phone
- For additional information:
 - DERA Tribal & Insular Areas Grant Program
epa.gov/cleandiesel/clean-diesel-tribal-grants
 - Tentative webinar #1: May 12th, 10AM PDT
 - Tentative webinar #2: May 18th, 12PM PDT
 - Tentative webinar #3: May 20th, 2PM PDT
 - EPA's West Coast Collaborative list-serv to be notified of grant funding opportunities: tinyurl.com/y2axl8bg
 - Previously funded Region 9 tribal DERA projects: westcoastcollaborative.org/projects-list.htm
 - VW Settlement www7.nau.edu/itep/main/volkswagensettlement/
 - Email Esperanza Perez.Esperanza@epa.gov



Appendix

Eligible Upgrade Summary



Medium & Heavy-Duty Trucks & Buses

- Engine model year 2009 & older may be replaced with 2016+ diesel, alternative fuel, or zero emission technology
- Engine model year 2010 & newer may be replaced with zero emission or low NO_x technology
- Some engines are eligible for retrofits, idle reduction technologies, alternative fuel conversions, & tires and aerodynamics

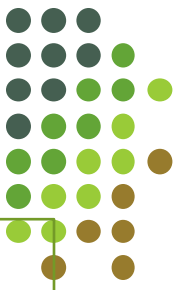
Eligible Upgrade Summary, con't



Nonroad Engines

- Tier 4 may be replaced with zero emission
- Tier 3 may be replaced with Tier 4 or zero emission
- Tier 2 & lower may be replaced with Tier 4 or zero emission
 - Tier 1, Tier 2, Tier 3 & Tier 4i vehicles, equipment, & engines may be used for replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis
 - This analysis is not required at the time of grant application submittal Costs for engineering analysis may be included in the project budget

Eligible Upgrade Summary, con't



Marine & Locomotive Engine Project Eligibility

- Tier 4 engines may not be replaced
- Tier 3 & lower may be replaced with Tier 4 or zero emission
 - Tier 1, Tier 2, Tier 3 and Tier 4i vehicles, equipment, & engines may be used for replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis
 - This analysis is not required at the time of grant application submittal. Costs for engineering analysis may be included in the project budget
- Tier 3 & lower, some engines are eligible for retrofits, certified remanufacture systems & verified engine upgrades
- Marine & locomotive shore power are eligible idle reduction projects

Funding Restrictions

DERA funds can **NOT** be used for the following:

Federal matching funds

Expenses incurred prior to the project period

Emissions testing

Fueling infrastructure

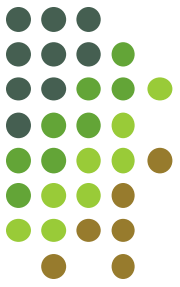
Federally mandated measures

Leasing vehicles or equipment

Expanding a fleet- scrappage is required

Replacement retrofit technologies

Other ineligible project costs will be in the 2021 RFA



School Bus
Rebates



National
Grants



Tribal and
Insular Area
Grants



Past Grants