

**Bay Area Air Quality Management District  
Carl Moyer Program  
On-Road Project Example Calculations and Successful Projects  
33000 GVWR and Over**

Table 1 Repower & Retrofit Project Example Calculations

Data Needed	Input/Results	Notes: 1. Note that these years have the same emission factors in this weight category. See Table 3 below. 2. Includes repower engine, labor and Level 3 device. 3. Assume Repower Engine MY is 2003-2006 with all the other factors the same - Max Possible Grant Award: \$45,500. 4. Assume Baseline Engine MY is 1994-1997 with all the other factors the same – would qualify for fewer dollars. 5. The best case scenario (considering the pending ARB On-Road fleet rule) would be a 2007 engine with a retrofit device already on the engine, assuming \$70,000 cost. Possible grant award amount: \$65,000.
Project Type	Repower & Retrofit	
Baseline Engine MY	1991-1993 (1)	
GVWR	33,000 +	
Annual Miles	40,000	
% in BAAQMD	80%	
Repower Engine MY	1998-2002 (1)	
Retrofit Device	Level 3 PM/ NOx	
Rebuild Costs	\$5,000	
Total Project Costs	\$70,000 (2)	
Max Possible Grant Award	\$33,900 (3)(4)(5)	

Table 2 Repower & Retrofit Project Example Calculations

Data Needed	Input/Results	Notes: 1. Note that these years have the same emission factors in this weight category. See Table 3 below. 2. Assumes engine already has device in it. 3. Note that without the device, the project life is 7 years. A project with a retrofit device has a 5 year project life. These additional years allow for more time to collect the emission reductions, and therefore more dollars can be granted.
Project Type	Repower & Retrofit	
Baseline Engine MY	1998-2002 (1)	
GVWR	33,000 +	
Annual Miles	40,000	
% in BAAQMD	80%	
Repower Engine MY	2007	
Retrofit Device	n/a (2)	
Rebuild Costs	\$5,000	
Total Project Costs	\$70,000 (3)	
Max Possible Grant Award	\$57,000	

Table 3

Diesel Vehicles 33,000+ GVWR Engine Model Years with the same emissions factors
Pre-1987
1987 – 1990
1991 – 1993
1994 – 1997
1998 – 2002
2003 – 2006
2007 – 2009
2010+

Notes: For demonstrative purposes only. These calculations are not a guarantee of eligibility, cost-effectiveness or funding. These calculations do not take into account if the applicant is in compliance with a regulation. If the vehicle is subject to a regulation but still eligible for funding, the project life would be shorter and the funding level may also be lower.

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**Successful On-Road Projects**

**Table 4** Repower & Retrofit Project

Data Needed	Input/Results
Project Type	Repower & Retrofit
Baseline Engine MY	1990
GVWR	33,000 +
Annual Miles	50,000
% in BAAQMD	100%
Repower Engine MY	1999
Retrofit Device	Level 3 NOx/PM
Rebuild Costs	\$6,000
Total Project Costs	\$70,000
Grant Award	\$59,000

**Table 5** Retrofit Project

Data Needed	Input/Results
Project Type	Retrofit
Baseline Engine MY	1997
GVWR	33,000 +
Annual Miles	35,000
% in BAAQMD	100%
Repower Engine MY	n/a
Retrofit Device	Level 3 PM
Rebuild Costs	n/a
Total Project Costs	\$20,000
Grant Award	\$8,000 (1)

Note:

1. Would have qualified for \$20,000 – this project not completed

**Table 6** New Vehicle Purchase

Data Needed	Input/Results
Project Type	New Vehicle Purchase
Baseline Engine MY	2007-2009
GVWR	33,000 +
Annual Miles	Fuel: 16,000 gallons
% in BAAQMD	100%
Repower Engine MY	n/a
Retrofit Device	n/a
Baseline costs	\$120,000
Project Costs	\$140,000
Grant Award	\$15,600 (1)

Note:

1. Project Costs are for a specialized truck with a cleaner-than-required LNG engine. Applicant would have been eligible for \$20,000, but applied for fewer dollars.

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