

**PACIFIC GAS AND ELECTRIC COMPANY  
General Rate Case 2011 Phase I  
Application 09-12-020  
Data Response**

PG&E Data Request No.:	DRA_238-01		
PG&E File Name:	GRC2011-Ph-I_DR_DRA_238-Q01		
Request Date:	March 26, 2010	Requester DR No.:	DRA-238-SWC
Date Sent:	April 8, 2010	Requesting Party:	DRA
PG&E Witness:	David Meisel	Requester:	Sophie Chia

**SUBJECT: FLEET SERVICES**

**QUESTION 1**

In Exhibit PG&E-7, Chapter 3, page 3-11, lines 14 to 26, PG&E states, “The On-Road Heavy Duty Diesel ATCM addresses diesel-powered vehicles...Compliance dates are based on engine year and vary over time to reach 100 percent compliance with Particular Matter standards by December 31, 2013. Vehicles falling under Group 1 must be 60 percent complaint by 2009 and fully compliant by 2011. Group 2 vehicle must be 60 percent compliant by 2011 and fully compliant by 2013. Group 3 units need to be 50 percent compliant by 2011 and 100 percent compliant by 2012. The ruling further requires that 30 percent of the total fleet meet the 2010 engine standard or Nitrogen Oxide (NOx) by 2013.”

- a. Did PG&E retrofit any of Group 2 vehicles to meet the particular matter standards during 2004 to 2009? If yes, provide the number of vehicles that were retrofitted for each year of 2004 to 2009 and the associated costs.
- b. Did PG&E retrofit any of Group 3 vehicles to meet the particular matter standards during 2004 to 2009? If yes, provide the number of vehicles that were retrofitted for each year of 2004 to 2009 and the associated costs.
- c. Provide a copy of the regulations that discusses the 2010 engine standard or Nitrogen Oxide (NOx) for On-Road Heavy Duty Diesel and highlight the sections pertaining to PG&E.
- d. Please explain in detail how the On-Road Municipal and Utility Heavy-Duty Diesel ATCM regulations regarding a Utility located in a Low-Population County apply to PG&E’s implementation schedule and how this affects the compliance of Group 2 and Group 3 vehicles to the particular matter standards. Please provide the numbers of Group 2 and Group 3 vehicles and the applicable compliance dates for each group affected by the Low-Population County implementation schedule.
- e. Please explain how the NOx standard applies to vehicles with 2007 to 2009 engine models.

- f. Please explain in detail whether PG&E has tested its Group 3 vehicles to determine whether any of the Group 3 vehicles meet the 85% NOx reduction. If yes, please explain the results. If no, please explain why the Group 3 vehicles have not been tested. Please provide supporting documentation.

#### **ANSWER 1A**

PG&E objects on the grounds that the question asks for actual 2009 data, which is not the basis for PG&E's 2011 GRC request. Notwithstanding the foregoing, and without waiving PG&E's right to object to the admissibility of the requested information into evidence, PG&E responds as follows.

Yes, PG&E retrofitted 100 Group 2 vehicles with Level 1 retrofit kits, 67 in 2005, and 33 in 2006. This was done with the assistance of the Bay Area Air Quality Management District. At the time Level 1 kits were the best available technology. Today, Level 1 kits would not meet the requirements. Any and all costs associated with this would not be representative of the cost to install level three retrofit kits today.

Of the 100 Level 1 retrofits, three retrofits were "experimental" and were installed at no cost to PG&E with the exception of the required infrastructure. This pilot was performed in coordination with Cleaire, a manufacturer of the kit. The remaining 97 retrofits were installed under contract with the Bay Area Air Quality Management District (BAAQMD). Total cost for these retrofits = \$342,318. Funding through BAAQMD Retrofit Project Fund = \$294,000. PG&E paid \$48,318.

Please see GRC2011-Ph-I\_DR\_DRA\_238-Q01aAtch01.xls for detail.

#### **ANSWER 1B**

PG&E objects on the grounds that the question asks for actual 2009 data, which is not the basis for PG&E's 2011 GRC request. Notwithstanding the foregoing, and without waiving PG&E's right to object to the admissibility of the requested information into evidence, PG&E responds as follows.

No, PG&E has not retrofitted any Group 3 vehicles. Any retrofit of a Group 3 vehicle would only meet the PM requirement in the On-Road regulation for utilities and would not meet the 2010 NOx requirement, requiring both the cost of retrofitting and replacement. Included in the work papers is a study on the overall net present value of retrofitting and eventually replacing or replacement as two different strategies. Based on the age of the vehicles in Group 3 and the cost of the retrofit the net present value study favors a replacement only strategy.

#### **ANSWER 1C**

Please see GRC2011-Ph-I\_DR\_DRA\_238-Q1cAtch01.pdf for a copy of the Public Agency and Utilities On-Road Regulation with the section pertaining to the private utility two-year that mandates that PG&E have minimum of 30% of our Total Fleet meet the 2010 model-year NOx emission equivalent (reference page 15).

Please see GRC2011-Ph-I\_DR\_DRA\_238-Q01cAtch02.pdf for a copy of the ARB Bus & Truck Regulation with the NOx Schedule.

#### **ANSWER 1D**

Although PG&E's service territory does include some low-population counties, PG&E is considered a Global Fleet and could not be included in a low-population implementation schedule since it extends outside the low-population county. PG&E specifically asked this question at one of the ARB workshops for clarification.

#### **ANSWER 1E**

The EPA regulations for vehicles with engines produced in 2007 through 2009 limit the NOx emissions to 1.2 g/hp-hr. For 2010 engines and beyond this requirement drops to 0.2 g/hp-hr, a 83% reduction. Vehicles with 2007 to 2009 engine models meet the 1.2 g/hp-hr standard, and under ARB regulations meet the "2007" standard. Vehicles with 2010 and beyond engine years meet ARB's 2010 engine standard.

PG&E is required by 2013 to have 30% of the On-Road fleet meet the 2010 NOx standard. Since no retrofit kits are available to meet the 2010 NOx requirement 30% of the fleet must be replaced with 2010 or newer units. In addition, 100% of the entire On-Road fleet must meet the PM requirements by 2013. This requires the other 70% to be either new purchases or retrofitted to meet PM. Both options require cash outlays. PG&E looked at both possible options by comparing the costs of both in terms of net present value. That study which is included in the workpapers concludes the lowest cost option is to replace units rather than retrofit.