

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

PG&E Data Request No.:	DRA_232-06		
PG&E File Name:	GRC2011-Ph-I_DR_DRA_232-Q06		
Request Date:	March 24, 2010	Requester DR No.:	DRA-232-SWC
Date Sent:	April 7, 2010	Requesting Party:	DRA
PG&E Witness:	David Meisel	Requester:	Sophie Chia

**EXHIBIT REFERENCE: PG&E-7, CHAPTER 3**

**SUBJECT: FLEET SERVICES**

**QUESTION 6**

In Exhibit PG&E-7, Chapter 3, page 3-10, PG&E states, “The Large-Spark Ignition (LSI) regulation will address gasoline, propane, butane and natural gas powered equipment greater than 25 horsepower, such as forklifts, street sweepers and generators. This regulation will require either retrofitting or replacing equipment to meet a series of emission standards. The Company has 39 pieces of equipment that will have to meet these standards through 2012 based on current emission estimates.”

- a. Please provide a copy of all analysis performed to determine that 38 pieces of equipment need to be replaced out of the normal replacement lifecycle versus the installation of emission control equipment to comply with the regulation.
- b. Please create a table with the type of LSI equipment, the cost to install emission control equipment, the cost to replace the equipment for each category, and the number of LSI equipment in the category.

**ANSWER 6A**

Table 1 below shows the LSI units by fuel type. There are currently only five verified retrofit kits available for installation on LSI units. In 2008, when the GRC forecast was put together, only two kits were available, (see Table 2 below). All five verified retrofit kits apply only to propane units. Ninety-two percent (92%) of the LSI units have no retrofit kit available. Since no kits were available for 35 of the 38 units, PG&E has elected to replace those units.

Table 1. - LSI units by Fuel Type

Reason	Repl Arbprogm	Repl FuelType Desc	Total
ARB- LSI Rule	LARGE SPARK IGN	Gasoline	33
		Natural Gas(CNG)	2
		Propane(LPG)	3
Grand Total			38

Table 2. - List of Verifiable LSI Retro-fit kits Available		
Name	Date of Availability	Target Engine Size
TerminOx	6/16/2008	1-3 liters (LPG Only)
TerminOx	6/16/2008	> 3 liters (LPG Only)
Nett® BlueCAT 200	7/22/2009	1-3 liters (LPG Only)
Nett® BlueCAT 300	7/22/2009	1-3 liters (LPG Only)
Nett® BlueCAT 300	7/22/2009	> 3 liters (LPG Only)

Only three of the 38 units were propane (LPG). Of the three propane units two units were pre-1998 units and had emission standard levels of 12 (HC+NOx, gr/hp/hr), or gross pollutants. PG&E chose to replace these units rather than retrofit based on age and emission standards.

The remaining one unit would have required a one-time investment equal to 28% of the remaining value of the old unit. While no study was done on this one unit, the cost of retrofitting this unit would not be supportable given the remaining life of the unit, the cost of replacement, and the cost to retrofit.

Year	Repl Class Desc	Cap Repl Cost	Retrofit Kit Cost (Est)	Remaining Depreciation	Retrofit Cost as percentage of Remaining Capital	Total
2003	FORKLIFT-UNDER 4 TONS	\$ 37,241	\$ 6,855	\$ 24,207	28%	1
ARB- LSI Rule that could be retrofitted - Total						1

**ANSWER 6B**

Please see table below.

Reason	Repl Class Desc	Fuel Type	Retrofit Kit Cost (est)	Unit Cost	Repl Cost - Purchase	Remaining Depreciation	Total
ARB- LSI Rule	FORKLIFT-4TON & OVER	Gasoline	N/A	\$ 55,499	\$ 1,165,484		21
	FORKLIFT-UNDER 4 TONS	Gasoline	N/A	\$ 37,241	\$ 372,412		10
	UTIL TRANSPORTER	Gasoline	N/A	\$ 14,258	\$ 28,515		2
	FORKLIFT-UNDER 4 TONS	Natural Gas(CNG)	N/A	\$ 37,241	\$ 74,482		2
	FORKLIFT-UNDER 4 TONS	Propane(LPG)	\$ 6,855	\$ 37,241	\$ 37,241	\$ 24,207	1
	SCISSOR/MAN LIFT-TIRES	Propane(LPG)	\$ 6,855	\$ 193,842	\$ 193,842	\$ 77,537	1
	STREET SWEEPER-DRIVEN	Propane(LPG)	\$ 6,855	\$ 71,286	\$ 71,286	\$ 28,514	1
ARB- LSI Rule Total							38
Grand Total							38