



SEU Fleet GHG Reduction Program

July 2009

Fleet Management Roundtable

Nashville, TN

Business Overview

- ▶ 24 million consumers
- ▶ 24,000 square miles of service territory
- ▶ 6.5 million gas meters
- ▶ 1.4 million electric meters
- ▶ SoCalGas largest natural gas distribution utility in nation



SEU Fleet Information (2008)

	<u>SCG</u>		<u>SDG&E</u>		<u>SEU</u>	
Vehicles						
Automobiles	332		203		535	
Light & Medium Duty	3,932		1,447		5,379	
Heavy Duty	80		246		326	
Equipment	957		347		1,304	
Total	<u>5,301</u>		<u>2,243</u>		<u>7,544</u>	
Alternative Fuel						
Alternative Fuel Vehicles						
Bi-Fuel CNG	778		132		910	
CNG Dedicated	173		8		181	
Hybrid/Electric Vehicles	16		40		56	
CNG and Electric Equipment	67		15		82	
Total	<u>1,034</u>		<u>195</u>		<u>1,229</u>	
CNG Stations (Public Access)	23	(15)	6	(3)	29	(14)
Fuel Use (Gallons)						
Total	<u>3,760,102</u>		<u>2,081,913</u>		<u>5,842,015</u>	
Unleaded Gasoline	2,846,194		957,905		3,804,099	
Diesel	319,333		773,868		1,093,201	
Biodiesel (B20)			197,998		197,998	
CNG	372,023		84,153		456,176	
Offsite Fuel (some propane)	222,552		67,989		290,541	
Average Miles Driven per Vehicle/Yr	9,632		12,556		10,550	

Fuel Management

- 95% of Fuel Purchased in Bulk
- EJ Ward Telemetric System
- Daily Update of Fuel Usage by Vehicle/Groups
- Linked to Internal Web Site
- 98 USTs

UST Tanks	SCG	SDG&E	SEU
Unleaded	56	8	64
Diesel	26	8	34
Total	82	16	98
Volume			
Unleaded	615,300	98,000	713,300
Diesel	126,575	88,000	214,575
Total Volume	714,875	186,000	927,875
# Garages	48	11 (2 Satellite)	
# Mechanics per garage)	1 – 3 (2 Avg)	7 – 14 (9 Avg)	

GHG Goal – Background

California Regulation – AB32

- Requires reducing GHG emission to 1990 levels by 2020
 - ~11% reduction from current levels
 - ~30% from projected emissions
- By 2050 emissions must be reduced by 80% below 1990 levels
- Transportation Section ~41% of total emissions (~450 metric tons)

SEU has registered emissions w/California Climate Action Registry (CCAR) since 2005

- Mobile emissions less than 5% of total emissions
 - 2005 – 55,303 metric tons (SCG – 37,216; SDG&E 18,087)
- CCAR protocols have evolved

In 2007 SEU established goal to reduce emissions - 15% from 2005 levels by 2012 (~950,000 gallons)

- Potentially reduce by 25% by 2015

GHG Reduction Strategy

Now

- Reduce fuel usage – most economical option
- Replace all passenger sedans with 60% hybrids, 40% CNG
- Purchase most fuel efficient vehicles (non-AF)
- Maximize use of CNG (move vehicles)
- Use B20 at SDG&E, when economical

Near-Term

- Replace other vehicles with AF as technology develops – hybrids/plug-in hybrids
- Replace aging CNG vehicles

Longer-Term

- Use of biogas

Fuel Reduction Strategy

- Establish yearly goal and issue monthly report by VP/Director

Policy/Program/Technology Related

- Reinforce/clarify vehicle use policy
- Pilot GPS Project (10-30%)
- Company-wide Routing/Optimization Programs
 - Customer Services
 - OpEx 20/20
- Potential Pilot for Vehicle Event Recorder

Driver Behavior Related

- Eco Driving Awareness Training
 - Presentations/videos/communication/bulletin boards
 - Eco Driving Concept (15% in Sweden)
 - Coasting
 - Idling
 - Loading weight 100 lbs – 2%
 - Speeding 10-15% penalty over 65 mph
- Eco Driving Behind the Wheel Program Pilot (80 people)
- Reports
- Vehicle Damage & Claims
 - CMVI Reporting
 - Speeding Information
 - Customer Complaints
 - Motor vehicle violations not resolved by drivers

Vehicle Related

- Purchase more efficient vehicles (1-5%)
 - CNG, hybrids (up to 50%)
- Optimize use of CNG
- Maintenance (PM)
 - Properly tuned engine (penalty of up to 20%)
 - Engine air filters (up to 10%)
 - Proper tire inflation & condition (up to 3-5%)

Results

The 2006 Baseline was reduced by ~10% but went back up the same level in 2007

- More advance protocol kicked in which included trace gases (CHG and N₂O) ~30%
- Increase fuel consumption due to fires ~30%
- Inclusion of all fuel streams not part of 2005/6 Baseline ~40%
 - Wet hosing
 - Propane
 - Fuel/Business cards unknown

Goal will be based on 2007 Baseline

- 2008 Estimated to be ~5% reduction
 - Liquid Fuel reduced by 6.2% (313,000 gallons)
 - CNG use increased by ~100,000 gallons
 - Used ~198,000 gallons of B20
 - Purchased 105 CNG/Hybrid Sedans
- 2009 YTD Fuel Reduction
 - ~ 120,000 gallons (~5%)

Programs Impacting Future Fuel Usage

- AMI Program ~160 meter reading vehicles – SDG&E
~450 meter reading vehicles – SCG
– meter change out programs
- Supervisor Enablement – Increase presence of supervisors in the field
- Job Site Reporting/Home Starts
- Fire Prevention Plan – SDG&E
- ATCM Requirements (~+2% diesel)
- Electrifying Fork Lifts
- Solar Arrow Boards
- Electric Vehicles

SAMPLE EJ WARD/FUEL REPORT

SCG/SDGE

Jan - Jun

	2008			2009			Gallons Difference	
	Miles	Gallons	Miles per Gallon	Miles	Gallons	Miles per Gallon		
Customer Services	10,017,380	895,046	11.2	8,742,644	852,545	10.3	(42,501)	-4.7%
Customer Operations	3,011,296	189,240	15.9	2,593,546	165,205	15.7	(24,035)	-12.7%
Customer Solutions	103,553	5,919	17.5	164,760	8,364	19.7	2,445	41.3%
Electric Trans & Distribution	4,307,865	434,360	9.9	3,995,223	382,950	10.4 *	(51,410)	-11.8%
Environmental, Safety & Facil	839,176	55,674	15.1	819,394	58,689	14.0	3,015	5.4%
Gas Operations	9,224,755	754,681	12.2	8,304,970	711,806	11.7	(42,875)	-5.7%
Gas Trans & Distribution	8,767,881	724,956	12.1	7,859,138	682,402	11.5	(42,554)	-5.9%
Information Technology	129,238	9,635	13.4	93,150	5,585	16.7	(4,050)	-42.0%
Power Supply	3,315	457	7.3	2,035	508	4.0	51	11.2%
Regulatory & Finance - Controller	19,654	786	25.0	15,364	668	23.0	(118)	-15.0%
Supply Management & Fleet Svcs	780,309	70,879	11.0	653,511	63,161	10.3	(7,718)	-10.9%
	28,436,541	2,416,677	11.8	25,384,597	2,249,481	11.3	(167,196)	-6.9%