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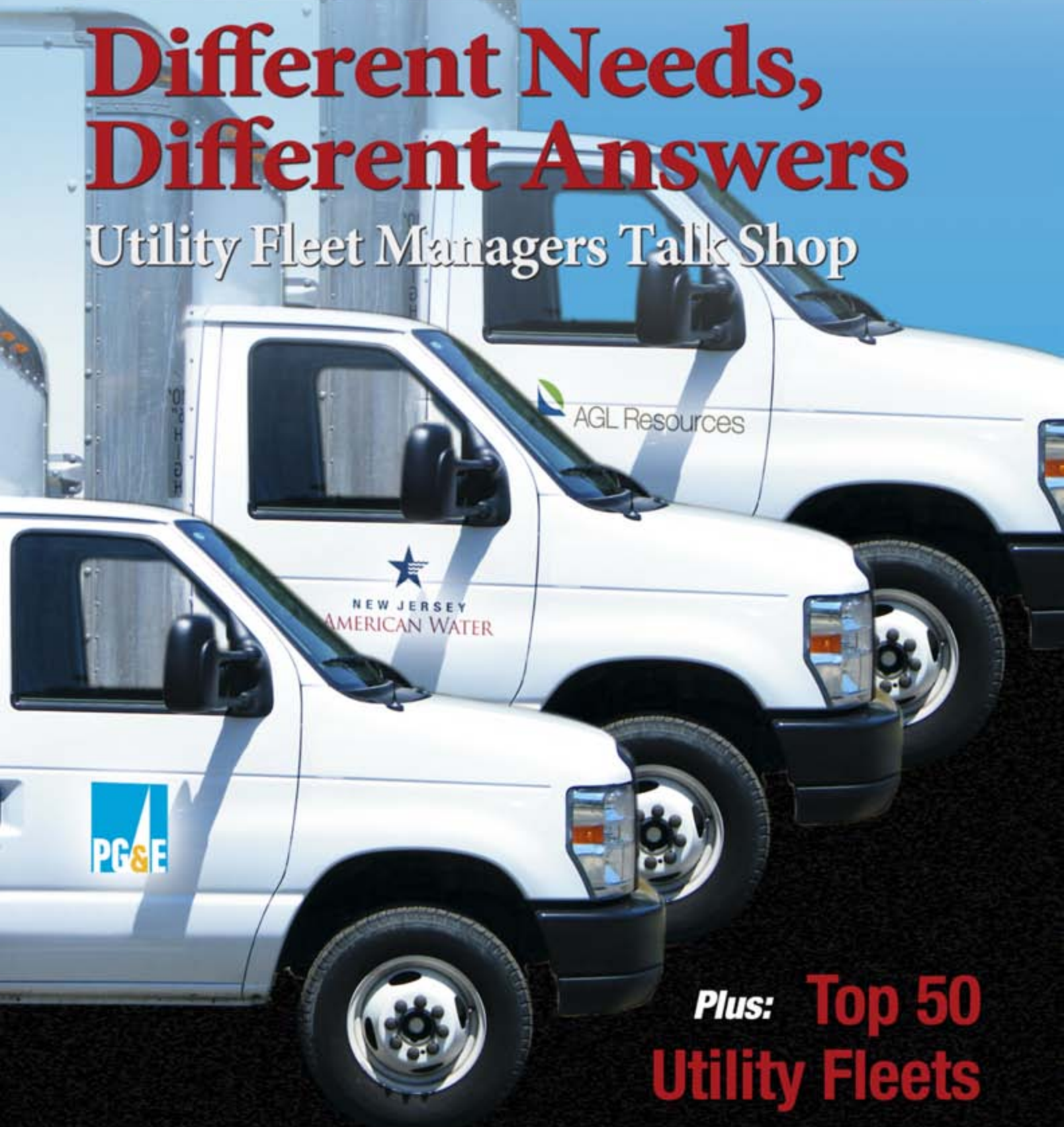
LIGHT & MEDIUM TRUCK

MANAGING COMMERCIAL, PUBLIC, UTILITY AND TELECOM FLEETS

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Different Needs, Different Answers

Utility Fleet Managers Talk Shop



**Plus: Top 50
Utility Fleets**

Finding Alternatives

This manager is exploring many alternatives for powering a fleet.

By Jim Galligan

For David Meisel, director of transportation for Pacific Gas & Electric, San Francisco, a career that began by turning wrenches has evolved into one that now includes traversing the country advising state and federal regulators in Sacramento and Washington on many issues with trucks and energy. In between, he has the day-to-day responsibility of running one of the largest combination gas and electric utility fleets in the country.

PG&E provides electric and natural gas service to approximately 15 million people throughout a 70,000-square-mile service area in northern and central California. Company linemen and workers use more than 12,000 vehicles and pieces of stock to serve those customers, making PG&E the largest fleet in the 2011 LIGHT & MEDIUM TRUCK Top 50 Utilities list.

Meisel has bachelor's degrees in operations management and psychology and a Master of Business Administration in marketing and finance. He is a 35-year veteran of the transportation industry and has been at the helm of PG&E's fleet since 2007.

What issues relevant to your industry are affecting the maintenance and performance of your fleet?

We're pushing very hard on alternative-fuel systems. There is a significant transition of technology taking place on chassis and components and the most difficult thing is keeping up with those changes. Mechanics that were used to doing things one way for so many years now have to do many things differently.

Another thing impacting us, like everyone, is fuel. Over the past five years it has gone absolutely crazy. It is virtually impossible to plan for it. We are looking at electrification on the vehicles where we use the batteries not only to drive the truck but to power the hydraulics, provide lighting, heat, air conditioning and external power while the truck is parked. This eliminates idling and makes a better business case for the high cost of the batteries. The drive for cleaner emissions is important, but the ability to improve or reduce fuel consumption and operating costs is critical.

How has your job changed over the past three to five years?

I started out as a mechanic, but I'm not just "truck fixing" anymore as in years past. I'm spending a lot more time in the regulatory and alternate fuel-related areas today. California has aggressive air quality standards in place, many of which lead the nation, and some of them tax the capabilities of the current technology. Because of this, I need to spend a lot more time with our regulators to ensure that we are completely aligned, compliant and funded to achieve those requirements. Although this can be a challenge for both PG&E and the vehicle and equipment manufacturing community, ultimately it will lead to reduced emissions and cleaner air for California and the rest of the country.





Jim Galligan for L&MT

Keeping up with regulatory changes takes up more time than ever before, said Dave Meisel, director of Pacific Gas & Electric's fleet.

The technology is new and exciting and in some cases can be pretty expensive. There are so many suppliers bringing new technologies to market that you have to stay actively involved in it. Because of that, I'm spending a lot more time in those areas than I ever thought.

How has the fleet operation changed over the past three to five years?

The biggest change . . . is the major shift to alternative fuels. Technology has allowed a lot of things to occur, such as suppliers with new power systems, exportable power off of electric generators or the expanded use of natural gas.

The electrification of vehicles is next. Some of the best automotive engineers in the world are in the United States. In five years, you're going to be amazed at the progress and change in technologies. That's what we're working on.

For example, electric vehicles' batteries are currently very expensive. But we're using only 20% of the available power [over their life]. So in order to make them less expensive in today's application, we are looking for a secondary life for them. We are looking at the possibility of using the lithium batteries (that are still 80% good) in a home storage application. This could potentially allow the homeowner to charge the battery at night when electric use, and in many cases rates, are down and then use it for a variety of residential needs such as charging an electric/hybrid car or emergency power.

We are also looking at the possibility of creating a secondary life for the batteries in more transportation-oriented applications such as ambulances.

What are some hard and fast rules you follow for managing the fleet and keeping equipment in top running condition?

Having hard and fast rules is hard. Business changes every day in some manner, and you need to be flexible and adjust.

I'm a big believer in having technically competent supervisors and managers. I want them to be visionary leaders, to know how to lead and how to be better. But they need to know the business. It's hard to be a visionary and lead a group if you don't know the field. If you want to change the industry, you have to understand the field you're in.

You also have to have a commitment to providing training and tools for workers. If you don't, soon you will not be able to fix the things that need to be fixed. Employee development is an investment that pays dividends. Turnover is less, costs are down and the time spent is a drop in the bucket.

What effect, if any, has the shortage of technicians had on the fleet, and what steps have you taken to correct that?

We don't have a problem in that area. I work at a great company where we offer technicians good pay, good benefits, good working conditions and stability. We don't have a technician shortage. When the recession hit, dealerships closed and that put a lot of good mechanics on the street and we benefited from that. In addition, we have also developed a 2-year training program that prepares technicians to become supervisors or managers if they have those types of career aspirations.

What lessons have you learned in your years as a fleet manager that have helped you succeed?

I think you need three things to be successful.

One is to work on employee engagement, getting them involved. You have to create an environment where everyone is successful, doing things that make their job a good job.

You have to understand operational excellence. You have to know how to deliver the results the company expects.

The third is customer satisfaction. We're an internal operation. Although fellow employees are my customer, I want [the fleet] to be the supplier of choice. And I want our [consumer] customers to know we're on their side. We're not in the fleet business; we're in the wire and pipes business. ●

Fueling the Future

An energy company fleet manager talks about challenges.

By Susan L. Hodges
Contributing Writer

When it comes to fleet management and alternative-fuel strategies, AGL Resources is one place where the rubber meets the road. The parent firm of Atlanta Gas Light is one of the nation's largest distributors of natural gas, providing service in six states through six utilities, two storage facilities and one asset-management company. AGL is No. 35 on LIGHT & MEDIUM TRUCK's 2011 Top 50 Utility Fleets list.

The company operates more than 1,800 pieces of equipment, yet its fleet of natural-gas-powered vehicles is relatively small. AGL Resources and new Fleet Manager Jason Broach plan to change that, but it's unlikely the change will happen quickly, because of service and delivery distances that extend from New Jersey to Florida and a host of other factors. Below, Broach talks about challenges, successes and plans for the fleet of a major American energy company.

What issues are affecting the maintenance and performance of your fleet?

Our business is constantly changing. One reason our natural-gas fleet is small is that most of our vehicles are dispatched from drivers'

homes, [and drivers need to be able to refuel locally]. This is an initiative we put into place about five years ago that really increased fleet efficiency and reduced the miles being put on our vehicles. But we realize it doesn't necessarily lend itself to a robust CNG strategy.

A related issue is CNG infrastructure—there's not a lot of it. There's actually more in the Southeastern U.S. than in many areas, but it's still not enough.

[Atlanta Gas Light filed a plan in May with the Georgia Public Service Commission to construct a network of CNG fueling stations over the next five years in metropolitan Atlanta and along major transportation corridors in the state. Under the plan, AGL would invest roughly \$12 million to stimulate private investment in the construction of 10 to 15 fueling stations.]

How have your job and the composition of your fleet changed over the past three to five years?

We added an initiative to take advantage of efficiencies presented by smaller vehicles in some cases. As an example, our distribution-crew trucks were Class 7 and Class 8 vehicles, but then the crews were reduced from four members to two, so we downsized to Class 6 trucks that were not only smaller but more maneuverable.

We also have some vehicles that are undersized for the jobs they're doing, such as facility repairs, so we're increasing the size of these trucks so they can carry more tools and equipment and make fewer stops to replenish.

What truck-related issues will have the greatest effect on the fleet going forward?

Manufacturer changes in light-duty trucks: The [Chevrolet] Kodiak, [Ford] Ranger and [Chevrolet] Colorado are all going away, leaving a gap for us in our fleet line. And changes at GM, particularly their moving away from Class 5, have had an impact. Their





AGL Resources

Jason Broach, fleet manager, has plans to expand the utility's use of natural gas vehicles once the infrastructure is in place.

Class 5 was a truck we liked for a segment of our fleet that handles pressure control.

What hard and fast rules do you follow for managing the fleet and keeping equipment in top running condition?

It's critical to maintain consistent replacement cycles [for parts, fluids and the vehicles themselves], so we have a managed maintenance program. We operate an in-house maintenance facility and also have maintenance programs with certain vendors. This is convenient for drivers who don't report to our central location. Information on vehicle work needed and work done comes to us from our vendors, who are tied to our fleet providers and management providers.

What adjustments, if any, have the fleet made as a result of the diesel emissions standards?

The biggest impact has been in truck body design. We've been replacing our Ford and Chevrolet crew trucks with Freightliners for the last three years and currently favor the M2 106. These trucks use SCR [selective catalytic reduction] technology and have DEF [diesel exhaust fluid]

tanks, so we've had to work closely with the manufacturer to make sure the bodies fit our job needs. We've changed our specifications for battery-mounting locations and exhaust-pipe routing.

What lessons have you learned as a fleet manager that help you succeed?

To be flexible and open-minded. The business is constantly changing, and the fleet needs to change as well. Just because you did something one way today doesn't mean you'll do it the same way tomorrow.

In the time I've been here, we've downsized vehicles to be more efficient in the service role, and then as individuals were tasked with more responsibilities, we had to move some of them back up to bigger vehicles. In some instances, vehicles were reassigned to other positions. In other cases, they were approaching the end of their life cycle and had to be retired..

You have to be flexible enough to understand that when the needs of the business change, you and your processes need to change with it. ●

Susan Hodges is a freelance writer based in Illinois.

An Eye for Fuel

A New Jersey utility fleet manager focuses on keeping fuel clean.

By Joe Howard

Maintaining high standards for his vendors, his staff and himself helps Gary Knaup, the fleet maintenance manager for New Jersey American Water, Voorhees, N.J., keep his fleet of 784 vehicles in top running condition. American Water is No. 16 on the LIGHT & MEDIUM TRUCK's 2011 Top 50 Utility Fleets list.

New Jersey's largest water and wastewater utility, NJAW is the largest subsidiary of American Water, which also has headquarters in Voorhees. The New Jersey fleet includes light- and medium-duty vehicles with gas, diesel, hybrid and natural gas engines, but the wide variety doesn't present a problem, Knaup said, as long as he's informed about how each vehicle is performing.

To ensure that he is kept up to date, Knaup keeps lines of communication open with his drivers, reviewing daily vehicle reports and holding regular sessions to discuss any problems.

Himself a former mechanic, Knaup also relies on his own experiences under trucks' hoods to diagnose and address problems.

Identify one issue that has drastically affected the maintenance and performance of your fleet.

Poor fuel quality has driven

maintenance costs up and performance levels down. At one point, we were changing fuel filters monthly. The filters contained algae, sludge and water. We have since changed [fuel] suppliers. At the same time, we were being charged 70 cents more per gallon for the poor-quality fuel.

How did you address this situation?

I met with the station manager. He stated that they paid \$4 per gallon, so he could not compete with the station down the road at \$3.99 per gallon. At the time, his price was \$4.69.

When I mentioned the quality issues, he insisted that his fuel had the best quality. I told him he should get it tested and ended our business transactions. We have since moved to another station. Our employees say that their vehicles are running much better.

How has your fleet changed in recent years?

The fleet has added compressed natural gas and hybrid vehicles. An on-site CNG fueling station was built since there are no public stations in New Jersey.

The hybrid vehicles are all cars. Their functionality is limited, but the fleet would [add] hybrids if the price was affordable.

Electric vehicles may find a big place in our business once range and pricing are more reasonable. The discussion may then turn to the electricity needed to power them [because] producing electricity is not carbon-free.

If technology is developed where a vehicle can be fully charged overnight via a solar-powered fueling station that uses energy [from sunlight] stored up during the day, it would be ideal.

The hybrids have outstanding performance. One 2008 vehicle with 98,000 [miles] has had no mechanical issues.

We have experienced little-to-no issues with the natural gas vehicles.





New Jersey American Water

For Gary Knaup, New Jersey American Water's fleet maintenance manager, finding uncontaminated flue has been more difficult than desired.

What are NJAW's vehicle purchasing guidelines?

NJAW has policies aimed at reducing its number of vehicles. We are working to compress or "right size" the number of vehicles. There is no specific time frame, but that number is consistently under scrutiny.

What factors guide your purchasing decision?

We typically purchase vehicles where the manufacturer's warranty covers the vehicle's replacement time frame. If we have a five-year, 100,000-mile replacement policy, we may not purchase a vehicle with a 60,000-mile powertrain warranty. All NJAW vehicle maintenance is outsourced.

Costs are kept in control by constant monitoring. I know what certain jobs should cost.

What hard and fast rules do you follow to keep equipment in top running condition?

Address driver write-ups quickly. Drivers submit daily vehicle condition forms, and I relay the issues to our maintenance provider. I personally get involved with safety issues — such as braking — and may intervene with scheduling or prioritizing repairs.

We also have "toolbox talks" at least once a week where

employees can speak freely about anything that is bothering them.

When a driver is concerned with something, especially something like the safe operation of our fleet vehicles, I am all ears. I enjoy the satisfaction they show me when their concerns have been completely addressed.

How is the fleet addressing fuel costs?

We use online services to monitor prices. Once [fueling] sites have been identified, we check to see if they have room for maneuverability of trucks pulling trailers.

Also, fueling reports for each vehicle are available. The reports show the date, location, price, fuel grade, quantity and odometer reading at the time of a fill-up.

Does NJAW have any SCR or advanced EGR engines?

So far, we have managed to stay away from the vehicles with the extra tanks. I think [this] is a good idea to limit the potential for contaminating the system with the wrong fluids.

The medium trucks we have been purchasing require the diesel particulate filter's regeneration cycle to run and have been performing well. ●



Fleet List Spotlights Utilities

The 2011 Top 50 Utility Fleets list provides a more complete picture of the largest electric, gas and water utility fleets in the United States and Canada.

Telecommunications fleets previously listed in the Top 50 are now included in the LIGHT & MEDIUM TRUCK Top 100 Commercial Fleets list published in July. The Top 50 list features 18 electric utilities, 24 combined electric and gas utilities, four natural gas distribution companies, three water utilities and two combined electric and water utilities. Iberdrola USA and DTE Energy are both included because of a tie.

As a group, 43 of the 51 utilities listed operated 141,001 vehicles in 2011 compared to 138,781 vehicles in 2010, an increase of 1.6%.

Most of the data for the Top 50 list came directly from fleet managers and company officials. In some cases, data were obtained from the U.S. Department of Transportation and other publicly available sources.

— Daniel P. Bearth

Rank	Company Name/Location	Services	Total Vehicles 2011	Type of Fuel	Maintenance Services
1	Pacific Gas & Electric Co. San Francisco	Natural Gas/ Electric	9,345	Gas, Diesel, Biodiesel, CNG/LNG Propane, Hybrid, Electric	PM, EU, HD, CM, EU, Tire/Wheel, APU
2	National Grid Westborough, Mass.	Electric/ Natural Gas	7,233	Gas, E85, Diesel, Biodiesel, CNG/LNG, Propane, Hybrid, Electric	PM, Tire/Wheel, HD, APU, DPF
3	Southern Company Atlanta	Electric	6,870	Gas, Diesel, Hybrid	PM, HD, CM, EU
4	MDU Resources Group Bismark, N.D.	Electric/ Natural Gas	6,480	Gas, Diesel	PM, EO, HD, Tire/Wheel
5	American Electric Power Columbus, Ohio	Electric	6,275	Gas, Diesel, Biodiesel, Hybrid, Electric	PM, HD, EO, EU, Tire/Wheel, APU, DPF
6	Sempra Energy¹ San Diego, Calif.	Electric/ Natural Gas	5,705	Gas, Diesel, Biodiesel, CNG/LNG, Hybrid, Electric	PM, HD, CM, Tire/Wheel, APU, DPF
7	Dominion Resources Inc. Richmond, Va.	Electric/ Natural Gas	5,500	Gas, Diesel, Biodiesel, CNG/LNG, Propane, Hybrid, Electric	PM, HD, Tire/Wheel, APU
8	Southern California Edison Rosemead, Calif.	Electric	4,886	Gas, Diesel, Hybrid, Electric	PM, HD, CM, APU
9	Public Service Enterprise Group Newark, N.J.	Electric/ Natural Gas	4,875	Gas, Diesel, Biodiesel, CNG/LNG, Hybrid	PM, HD, CM, EU, Tire/Wheel, APU
10	Duke Energy Corp.² Charlotte, N.C.	Electric/ Natural Gas	4,756	Gas, Diesel, Biodiesel, Hybrid, Electric	PM, EO, HD, CM, Tire/Wheel, APU, DPF
11	Consolidated Edison Co. Brooklyn, N.Y.	Electric	4,724	Gas, Diesel, Biodiesel, CNG/LNG, Propane, Hybrid, Electric	PM, EO, HD, CM, EU, Tire/Wheel, APU
12	FirstEnergy Corp.³ Akron, Ohio	Electric	4,534	Gas, Diesel, Biodiesel	PM, HD, DPF
13	Exelon Corp.⁴ Chicago	Electric	4,520	Gas, Biodiesel, CNG/ LNG, Propane, Hybrid, Electric	PM, EO, HD, CM, EU, Tire/Wheel, APU
14	NiSource Inc. Merrillville, Ind.	Electric/ Natural Gas	4,504	Gas, Diesel, Hybrid	PM, HD
15	PPL Corp.⁵ Allentown, Pa.	Electric/ Natural Gas	4,343	Gas, Diesel, Biodiesel, Hybrid	PM, HD, Tire/Wheel, APU, DPF
16	American Water Voorhees, N.J.	Water	4,030	Gas, Diesel, CNG/LNG, Hybrid	Outsourced
17	CenterPoint Energy Houston	Electric/ Natural Gas	3,687	Gas, Diesel, Biodiesel, CNG/LNG, Hybrid	PM, EO, HD, CM, EU
18	PacifiCorp Portland, Ore.	Electric	3,595	Gas, Diesel, Biodiesel, CNG/LNG, Propane, Electric	PM, HD, APU, DPF
19	Atmos Energy Corp. Dallas	Natural Gas	3,533	Gas, Diesel, CNG/LNG, Hybrid	Outsourced
20	Entergy Corp. New Orleans	Electric	3,470	Gas, Diesel, CNG, Hybrid	PM, HD, APU, DPF
21	L.A. Dept. of Water and Power Los Angeles	Water/Electric	3,441	Gas, Diesel, CNG/LNG, Biodiesel, Hybrid, Electric	PM, EO, HD, CM, EU, Tire/Wheel, DPF
22	Xcel Energy Minneapolis	Electric	3,295	Diesel, Gas, Biodiesel, CNG/LNG, Hybrid	PM, EO, HD, EU
23	Tennessee Valley Authority Knoxville, Tenn.	Electric	2,905	Gas, E85, Diesel	Outsourced

Rank	Company Name/Location	Services	Total Vehicles 2011	Type of Fuel	Maintenance Services
24	Oncor Electric Delivery Holding Co. Dallas	Electric	2,680	Gas, Diesel, Hybrid, Biodiesel	Outsourced
25	CMS Energy Corp. Jackson, Mich.	Electric	2,675	Gas, Diesel, Hybrid, CNG/LNG	PM, EO, HD, CM
26	Progress Energy² Raleigh, N.C.	Electric	2,481	Gas, Diesel, Biodiesel, Hybrid	PM, EO, HD, EU, Tire/Wheel
27	Florida Power & Light Juno Beach, Fla.	Electric	2,472	Gas, Diesel, Biodiesel, Hybrid, Electric	PM, EO, HD, Tire/Wheel, APU
28	Northeast Utilities Hartford, Conn.	Electric	2,371	Gas, Diesel, Biodiesel, CNG/LNG, Hybrid, Electric	PM, EO, HD
29	Integrus Energy Group Chicago	Electric/ Natural Gas	2,251	Gas, E85, Diesel, CNG/LNG, Hybrid	PM, HD, EU
30	Iberdrola USA Rochester, N.Y.	Electric/ Natural Gas	2,127	Gas, Diesel, Hybrid	Outsourced
30	DTE Energy Corp. Detroit	Electric/ Natural Gas	2,127	Gas, Diesel, Biodiesel, CNG/LNG	PM, HD, EO, CM, APU, DPF
31	Constellation Energy Group⁴ Baltimore, Md.	Electric/ Natural Gas	1,900	Gas, Diesel, Biodiesel, Hybrid	PM, EO, HD, CM, EU, Tire/Wheel, APU, DPF
32	Alliant Energy Corp. Madison, Wis.	Electric/ Natural Gas	1,806	Gas, E85, Diesel, Biodiesel	PM, HD, CM, EU
33	Pepco Holdings Inc. Washington, D.C.	Electric/ Natural Gas	1,813	Gas, Diesel, Biodiesel, Propane, Hybrid, Electric	PM, HD, Tire/Wheel, APU
34	Nstar Inc. Westwood, Mass.	Electric/ Natural Gas	1,800	Gas, Diesel, Biodiesel, Hybrid	
35	AGL Resources⁶ Atlanta	Natural Gas	1,625	Gas, Diesel, CNG/LNG, Propane, Electric	PM, EO, HD, EU, Tire/Wheel, APU
36	Southwest Gas Corp. Las Vegas	Natural Gas	1,423	Gas, Diesel, CNG/LNG, Hybrid, Electric	PM, HD, EU, Tire/Wheel, APU, DPF
37	Wisconsin Energy Corp. Milwaukee, Wis.	Electric/ Natural Gas	1,342	Gas, Diesel	
38	OGE Energy Corp. Oklahoma City	Electric/ Natural Gas	1,308	Gas, Diesel, Biodiesel, Hybrid	PM, EO, HD, CM, EU
39	Ameren Missouri St. Louis	Electric/ Natural Gas	1,203	Gas, Diesel, Biodiesel, Hybrid	PM, HD, Tire/Wheel, APU
40	Scana Corp. Columbia, S.C.	Electric/ Natural Gas	1,169	Gas, Diesel, Hybrid	PM, HD, EU, Tire/Wheel, APU, DPF
41	NV Energy Las Vegas	Electric/ Natural Gas	1,097	Gas, Diesel, Biodiesel, Hybrid	PM, HD, EU, Tire/Wheel, DPF
42	Aqua America Inc. Bryn Mawr, Pa.	Water and Sewer	1,090	Gas, Diesel, Biodiesel, CNG/LNG, Hybrid	PM, HD, EU, Tire/Wheel
43	Nicor Inc.⁶ Naperville, Ill.	Natural Gas	959	Gas, E85, Diesel, CNG/LNG, Hybrid	PM, EO, HD, EU
44	Portland General Electric Co. Portland, Ore.	Electric	927	Gas, Diesel, Biodiesel, Hybrid, Electric	PM, EO, HD, EU, APU
45	Idaho Power Boise, Idaho	Electric	926	Gas, Diesel, Biodiesel, Hybrid	PM, EO, HD, CM, EU, APU
46	Westar Energy Topeka, Kan.	Electric	911	Gas, Diesel, Biodiesel, Hybrid, Electric	PM, HD, EU, APU
47	FortisBC Vancouver, British Columbia	Electric/ Natural Gas	821	Gas, Diesel, Biodiesel, CNG/LNG, Propane, Hybrid	PM, HD, EU, APU
48	California Water Service Group San Jose, Calif.	Water	691	Gas, Diesel, Hybrid	Outsourced
49	Avista Corp. Spokane, Wash.	Electric/ Natural Gas	586	Gas, Diesel, Hybrid	PM, HD, EU, APU
50	Tacoma Public Utilities Tacoma, Wash.	Electric/Water	445	Gas, Diesel, Biodiesel, Hybrid, Electric	PM, EO, HD, EU, APU

FOOTNOTES

- Sempra Energy data include Southern California Gas Co. and San Diego Gas & Electric.
- Duke Energy and Progress Energy have announced plans to merge.
- FirstEnergy Corp. data include Allegheny Energy acquired in 2010.
- Exelon Corp. and Constellation Energy have announced plans to merge.
- PPL Corp. data includes Louisville Gas and Electric Co. and Kentucky Utilities acquired in 2010.
- AGL Resources and Nicor Inc. have announced plans to merge.

KEY

- PM:** Preventive Maintenance
HD: Hydraulics
EO: Engine Overhauls
EU: Equipment Upfitting
CM: Contract Maintenance

- APU:** Auxilliary Power Unit
DPF: Diesel Particulate Filter
CNG: Compressed Natural Gas
LNG: Liquefied Natural Gas

Research: Karen Villar