



Engineering Technical Note

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2016 Natural Gas Utility and Transmission Industry Occupational Injury and Illness Statistics

This is an annual report of the natural gas utility and transmission industry occupational injuries and illnesses and motor vehicle statistics as submitted to AGA from member companies for the year ending 2016.

April 1, 2017
AGA Safety & Occupational Health Committee

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I. INTRODUCTION

The American Gas Association represents natural gas utilities that deliver this efficient, domestic fuel to homes and business every day. Safety for both employees and the public is the top priority and a core value for the American Gas Association and its members. To help the industry better understand overall industry safety performance, the AGA Safety and Occupational Health Committee (SOH) surveys AGA members annually for statistical data regarding on-the-job injuries, illnesses and motor vehicle accidents (MVA). This report presents 2016 data for 117 natural gas companies.

The AGA SOH Committee developed guidelines for responding to the survey and are highlighted in the next section. The guidelines provide a consistent method of benchmarking and gathering the statistical data included in this report.

II. GUIDELINES

A. Who Should Report

All AGA member companies involved in the transmission or distribution of natural gas are encouraged to submit annual safety statistical data to AGA. Data may be combined or submitted separately for subsidiaries, groups of companies, or parent companies.

To provide the most complete benchmarking results, companies are advised to separate their statistical data into the appropriate sector of the natural gas industry, i.e. local distribution company, combination gas/electric utility, and transmission company. AGA compiles the data, summarizes, and reports accordingly for each sector in various size categories (determined by number of employees and annual miles driven).

A combination utility is encouraged to report hours and injuries for only those employees in its company involved in natural gas operations and in supporting jobs (e.g., Accounting, Human Resources, etc.) to natural gas operations. In such case and for the purposes of this report, the combination utility may classify itself as a "local distribution company." The combination utility may estimate the hours and injuries actually attributable to natural gas industry activities. If the combination utility is unable to distinguish its work activities between gas operations and electric operations, then that utility must identify itself as a "combination utility," not a "local distribution company." In such cases, it is acceptable for the combination utility to submit data inclusive of non-gas operations.

B. Reporting

Each year, safety statistics will be requested for the previous calendar year. The information submitted helps to compare statistical information with other companies in the natural gas industry. Companies are encouraged to consistently report on an annual basis to help facilitate multi-year benchmarking and analysis. All companies should report their statistical data based upon OSHA Recordable Injuries and Illnesses and Reportable Vehicle Accidents. The definitions for OSHA Recordable Injuries and Illnesses and Reportable Vehicle Accidents are included in the "Definitions & Formulas" section.

Safety statistics reported by participating companies are summarized into this annual report for the natural gas industry. Copies are provided to each reporting company. Companies are separated by sector and grouped by company size (determined by number of employees for injury/illness computations and by annual miles driven for motor vehicle accident computations).

Within each group, the companies are listed in order of increasing Days Away/Restricted or Job Transfer (DART) incident rate, adjusted to reflect a maximum average of 1,960 work hours per employee (see Section C for how the DART incident rate is computed). For motor vehicles safety, the companies are listed in order of increasing Reportable MVA rate by company sector (see Section C for how the Reportable MVA rate is computed). There is an added sector titled 'Small Companies' (companies with less than 1,000,000 miles driven).

Figures 1 through 3 show the industry trends from 2007-2016 for the total OSHA injury and illness incidence rate, DART incidence rate, and DART severity rate, respectively. The rates reflect numbers per 100 full-time employees. Figure 4 shows the industry performance in motor vehicle safety from 2007-2016 by local distribution company, combination utility, and transmission company sectors of the industry.

C. Definitions & Formulas

1. General

- a) **DART — Recordable cases involving Days Away from work, days of Restricted work activity or job Transfer.**
- b) **Employee — One who is employed in the business of his/her employer affecting commerce. This includes personnel supervised by the employer and compensated through the employer's payroll and withholding system. Contract and temporary personnel obtained through an agency are generally not included where the issuing of their work orders is not considered supervision.**
- c) **Recordkeeping — Method used to record and classify occupational injuries and illnesses and motor vehicle accidents in a consistent manner.**
 - All occupational injuries and illnesses should be recorded and reported according to the most recent issue of the U. S. Department of Labor Bureau of Labor OSHA Forms for Recording Work-Related Injuries and Illnesses.
 - All motor vehicle accidents (MVA) should be recorded if meet the definition of a reportable MVA. Guidelines to help determine if an MVA is reportable are contained in the National Fleet Safety Contest (NFSC) rules and their Appendix C, "Interpretations of Questionable Incidents" (IQI). These guidelines are contained in Appendix C of **this** publication. The NFSC is sponsored by the National Safety Council. The IQI rules are similar to ANSI Standard D 15.1, *Safe Practices for Motor Vehicle Operations*.
 - Companies can also record MVAs as preventable or non-preventable based on the definition contained in this section.

2. Incidence Rates

Injuries and Illnesses rates are calculated by:

$$\frac{N \times 200,000}{\text{the annual hours worked}}$$

where,

- ⇒ N = number of cases
- ⇒ annual hours worked = total hours worked by all employees during calendar year
- ⇒ 200,000 hours/year = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

3. DART Incidence Rate

$$\frac{\text{Number of cases involving days away from work plus the number of cases involving job transfer or restriction} \times 200,000}{\text{annual hours actually worked}}$$

4. Adjusted DART Incidence Rate

$$\frac{\text{Number of cases involving days away from work plus the number of cases involving job transfer or restriction} \times 200,000}{\text{annual hours worked}^*}$$

**Not to exceed 1,960 hours per employee*

Note: AGA will present its Safety Achievement Awards to members who have the lowest adjusted DART incident rate without fatality. In its reporting guidelines, AGA requested that companies submit data which include number of employees and total hours worked by employees. Companies that have a figure exceeding 1,960 hours *per* employee will have their annual hours adjusted, accordingly, for the sole purpose of identifying the leading company for AGA Safety Achievement Awards. For award purposes, ties for companies with an equal incident rate shall be broken by: i) the company with lowest OSHA recordable incident rate; and then ii) the company with the greater number of hours worked.

5. DART Severity Rate

$$\frac{\text{Number of days away from work plus the number of days of job transfer or restriction} \times 200,000}{\text{annual hours actually worked}}$$

6. Adjusted DART Severity Rate

$$\frac{\text{Number of **days** away from work} \\ \text{plus the number of days of job transfer} \\ \text{or restriction X 200,000}}{\text{annual hours worked*}}$$

**Not to exceed 1,960 hours per employee*

7. Total OSHA Recordable Incidence Rate

The number of on-the-job occupational injuries and illnesses and lost workday cases (OSHA recordable cases) related to a common exposure base of 100 full-time workers. A common exposure base provides a method to make accurate inter-industry comparisons and trend analyses over time regardless of size.

$$\frac{\text{Total number of OSHA recordable} \\ \text{cases X 200,000}}{\text{annual hours actually worked}}$$

8. Motor Vehicle Accidents (MVA)

a) Reportable motor vehicle accident rate

$$\frac{\text{Number of Reportable MVA X 1,000,000}}{\text{Total miles driven}}$$

where,

⇒ MVA = motor vehicle accidents

⇒ 1,000,000 miles = base of 1,000,000 miles driven per year for entire fleet

⇒ total miles driven = total miles driven by all vehicles combined in fleet

b) Preventable motor vehicle accident rate

$$\frac{\text{Number of Preventable MVA X 1,000,000}}{\text{Total miles driven}}$$

9. Injury and Illness Terms

a) Annual hours worked

The total hours worked by all employees. Actual hours should be used if possible. Actual hours worked should be the sum of scheduled hours plus overtime, less vacation, holidays, hours sick, bereavement, etc.

b) When is an injury or illness considered work-related?

If an event or exposure in the work environment caused or contributed to the condition or significantly aggravated a preexisting condition. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures in the workplace, unless an exception specifically applies. See 29 CFR Part 1904.5(b)(2) for the exceptions.

c) First aid

Cases that involve:

- using non-prescription medications at non-prescription strength;
- administering tetanus immunizations;
- cleaning, flushing, or soaking wounds on the skin surface;
- using wound covering, such as bandages, BandAids™, gauze pads, etc., or using SteriStrips™ or butterfly bandages;
- using hot or cold therapy;
- using any totally non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc.;
- using temporary immobilization devices while transporting an accident victim (splints, slings, neck collars, or back boards);
- drilling a fingernail or toenail to relieve pressure, or draining fluids from blisters;
- using eye patches;
- using simple irrigation or a cotton swab to remove foreign bodies not embedded in or adhered to the eye;
- using irrigation, tweezers, or cotton swab or other simple means to remove splinters or foreign material from areas other than the eye;
- using finger guards;
- using massages; or
- drinking fluids to relieve heat stress.

d) OSHA recordable cases

All work-related injuries and illnesses that result in deaths, loss of consciousness, days away from work, restricted work activity, or job transfer or medical treatment beyond first aid.

- Also record any significant work-related injury or illness case that is diagnosed by a physician or other licensed health care professional. You must record any work-related case involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum.
- Record these conditions when they are work-related:
 - Any needlestick injury or cut from a sharp object that is contaminated with another person's blood or other potentially infectious material;
 - Any case requiring an employee to be medically removed under the requirements of an OSHA health standard;
 - Tuberculosis infection as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional after exposure to a known case of active tuberculosis.

e) Cases involving restricted work

Restricted work activity occurs when, as the result of a work-related injury or illness, an employer or health care professional keeps, or recommends keeping, an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.

f) Counting the number of days of restricted work activity

Count the number of calendar days the employee was on restricted work activity or was away from work as a result of the recordable injury or illness. Do not count the day on which the injury or illness occurred. Begin counting days from the day after the incident occurred. If a single injury or illness involved both days away from work and days of restricted work activity, enter the total number of days for each. Stop counting days of restricted work activity or days away from work once the total of either or the combination of both reaches 180 days.

Note: Some cases occur in one calendar year and then result in days away from work in the next year. For example, an employee may be injured on December 20th and be away from work until January 10th. The company should only record this type of injury once, in the year that it occurred. If the employee is still away from work when the annual statistics are submitted to AGA, the company should count the number of days the employee was away and estimate the total days away that are expected to occur, similar to OSHA guideline 1904.7(b)(3)(viii)

10. Motor Vehicle Accident (MVA) Terms

a) Annual miles driven

The total annual miles driven by all Company owned or leased motor vehicles. Typical vehicle use averages between 10,000 and 20,000 miles per vehicle per year.

b) Motor vehicle

Any mechanically powered device, upon which or by which any person or property may be transported on a land highway. This includes Company owned and/or Company leased vehicles. The load on a motor vehicle is considered part of the vehicle. Vehicles operating on fixed rails, road construction and maintenance machinery, motorcycles, scooters, and other highly specialized equipment shall **not** be considered a motor vehicle.

c) Reportable motor vehicle accident

Any occurrence involving a motor vehicle which results in death, injury, or property damage, **unless such vehicle is properly (legally) parked**. Who was injured, what property was damaged or to what extent, where it occurred, or who was responsible is not a factor. A properly parked motor vehicle is one completely stopped and parked where it is legal to park such a vehicle. In so far as possible, parking on private property shall be governed by the same regulations as apply on public streets and highways. On a construction work site, a properly parked vehicle should be away from immediate hazards and activities. **A vehicle stopped in traffic in response to a sign, signal, or police signal is not considered parked.**

d) Preventable motor vehicle accident

Any motor vehicle accident where the operator of the vehicle failed to do everything reasonable to avoid the accident.

11. Industry Trends

Figures 1 through 3 show the industry trends from 2008-2016 for the total OSHA injury and illness incidence rate, DART incidence rate, and DART severity rate, respectively. The rates reflect numbers per 100 full-time employees. Figure 4 shows the industry performance in motor vehicle safety from 2008 data to 2016 data. The information is separated by local distribution company, combination utility, and transmission company sectors of the industry.

FIGURE 1: OSHA Recordable Injury & Illness Incident Per 100 Employees

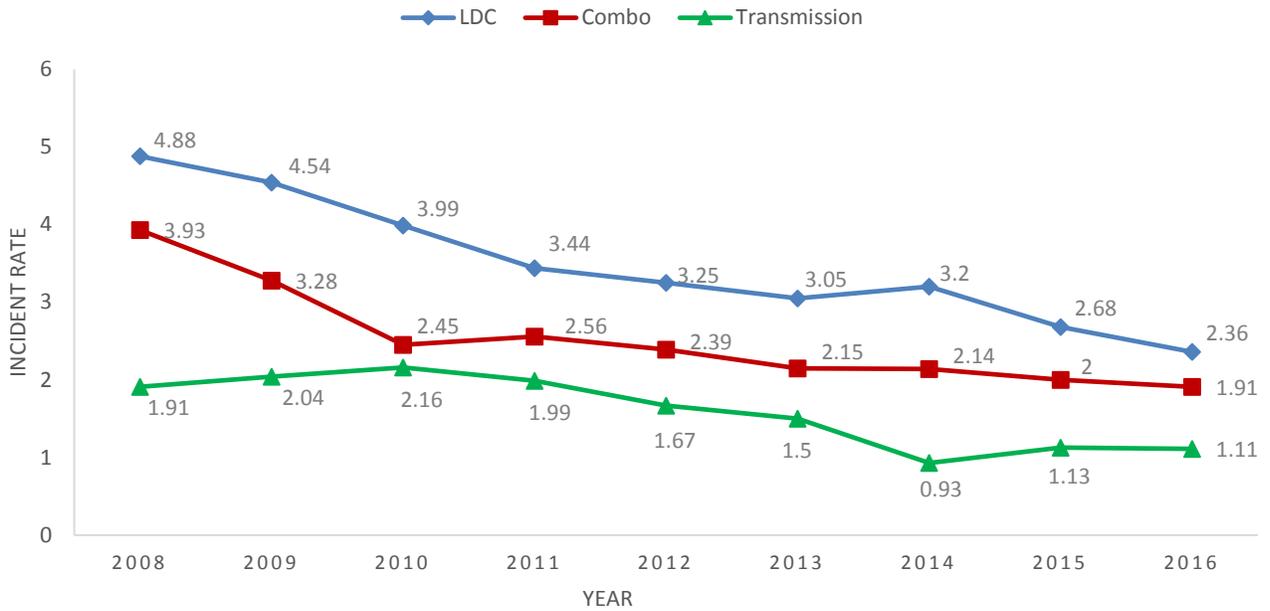


FIGURE 2: DART Incidence Rate per 100 Full-Time Employees

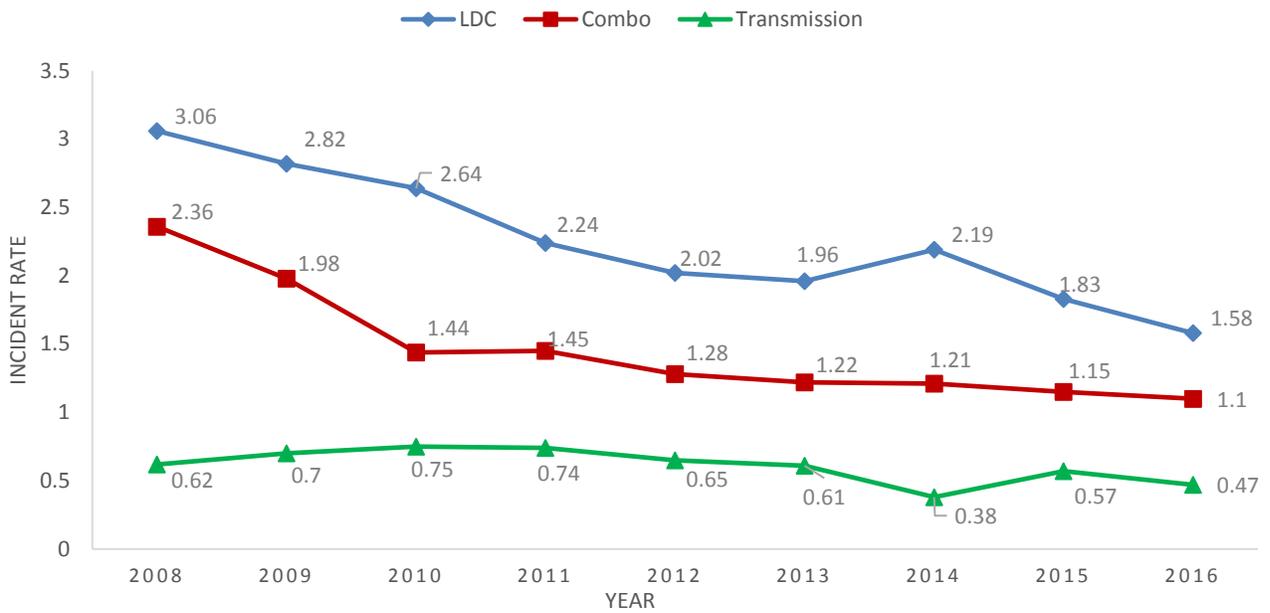


FIGURE 3: DART Severity Rate per 100 Full-Time Employees

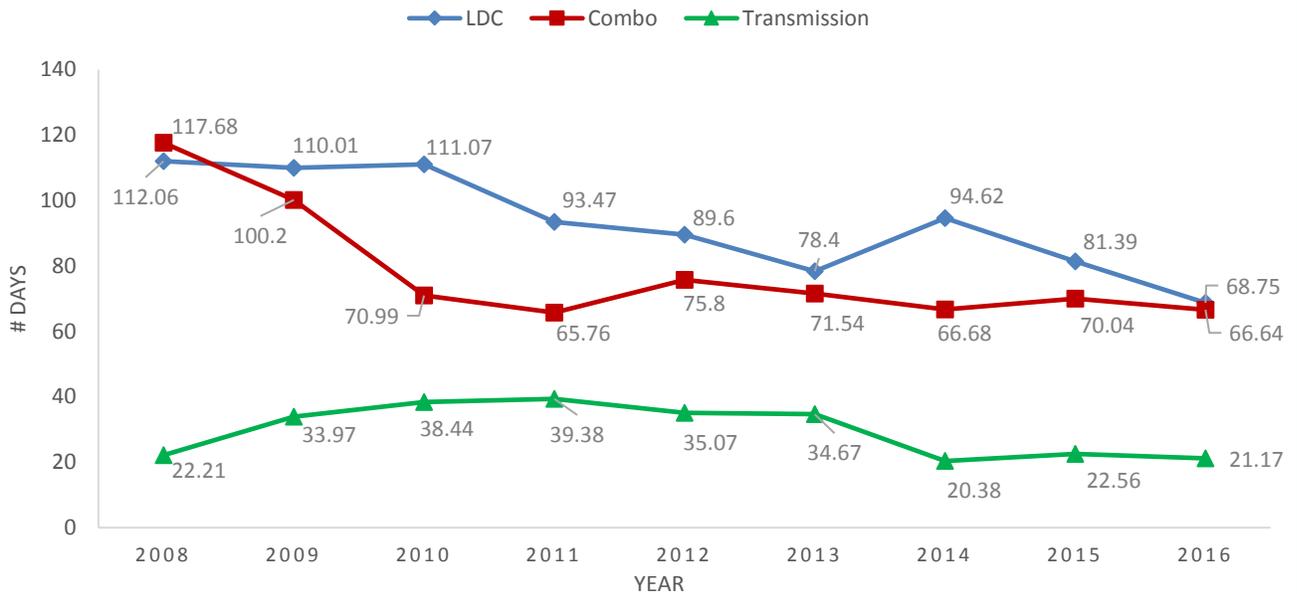
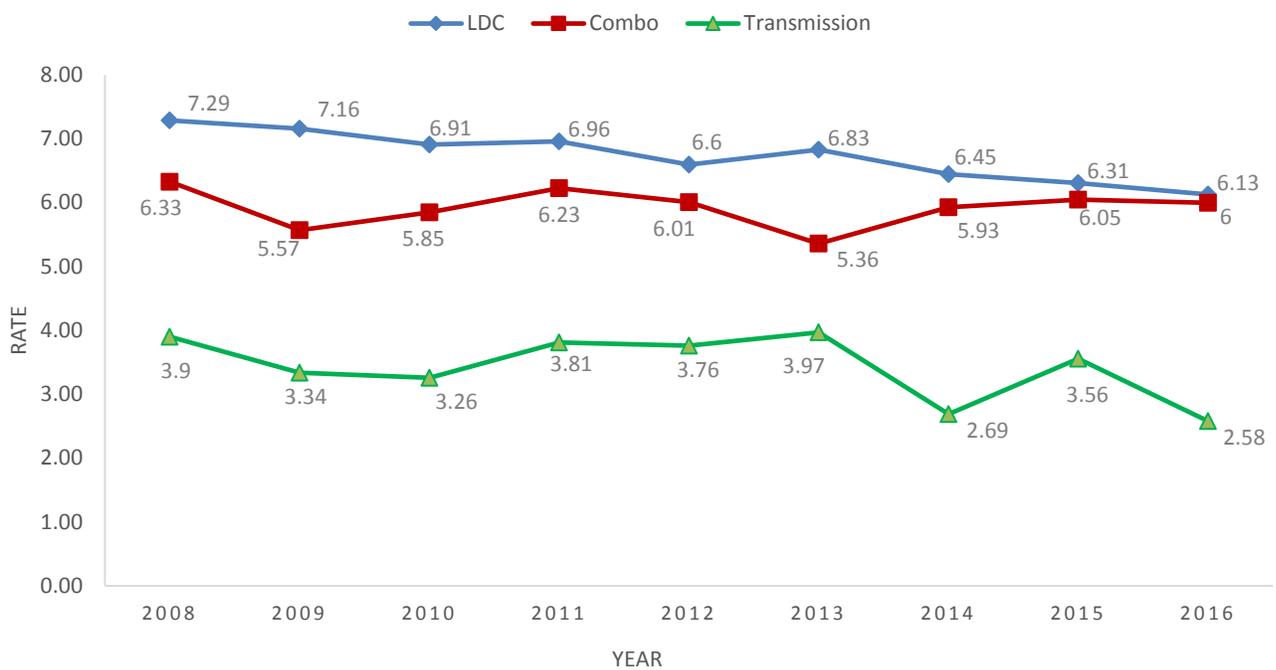


FIGURE 4: Reportable Motor Vehicle Accident Rate per Million Miles Driven



III. INJURY/ILLNESS CAUSE CATEGORY DATA

AGA member companies submitted information on cause categories associated with injuries/illnesses suffered by their employees. This data is useful in understanding the most common causes and sources of injury for employees of the natural gas industry. AGA's Safety & Occupational Health Committee continuously works to identify practices and procedures which can alleviate the most common injuries, and to address the incidents with the most severe consequences.

The aggregate data collected is shown below for the following categories:

- Type of Injury/Illness
- Body Part Affected
- General Description of Injury/Illness

TABLE 1A: Type of injury/illness	2014 totals	%	2015 totals	%	2016 totals	%
Sprains, strains	2147	49%	2,025	50%	2,072	48%
Fractures	194	4%	183	5%	171	4%
Cuts, lacerations, punctures	468	11%	421	10%	493	11%
Abrasions, scrapes	63	1%	71	2%	85	2%
Bruises, contusions	327	7%	309	8%	305	7%
Heat Burns	71	2%	53	1%	57	1%
Chemical burns or irritations	11	0%	28	1%	21	0%
Exposure to extreme temperature	24	1%	28	1%	30	1%
Hearing loss	135	3%	97	2%	136	3%
Amputations	1	0%	5	0%	6	0%
Cumulative trauma	240	5%	205	5%	195	5%
Animal bites/stings	246	6%	291	7%	309	7%
Skin irritations	62	1%	72	2%	76	2%
All others	433	10%	249	6%	346	8%
Leading other:						
- Walking			- Poison Ivy			
- Stepping Up/Descending			- Climbing			
- Overexertion			- Cut/Puncture			
- Body Positioning			- Overexertion			

TABLE 1B: Body Part Affected	2014 totals	%	2015 totals	%	2016 totals	%
Head					124	3%
Face (including nose/teeth)	126	3%	123	3%	131	3%
Eye	158	4%	122	3%	151	3%
Ear	137	3%	84	2%	138	3%
Neck	154	3%	124	3%	145	3%
Back	721	16%	613	16%	775	17%
Arm (include shoulder/elbow)	806	18%	760	20%	834	19%
Hand (including wrist/finger)	806	18%	718	19%	725	16%
Leg (including knee/hip)	696	16%	604	16%	723	16%
Foot, toe	328	7%	278	7%	307	7%
Internal injury	23	1%	14	0%	24	1%
Lungs/respiratory system	16	0%	20	1%	21	0%
Abdomen / stomach	62	1%	59	2%	48	1%
Chest / torso	66	1%	63	2%	82	2%
All others	256	6%	180	5%	248	6%

Leading other:

- Multiple body parts or whole body
- Buttocks
- Groin
- Thigh

TABLE 1C: General Description of Injury/Illness	2014 Totals	%	2015 Totals	%	2016 Totals	%
Slips or trips	501	11%	443	11%	404	10%
Falls	423	9%	374	9%	366	9%
Lifting, pushing or pulling	291	6%	311	7%	323	8%
Struck by object or against object	258	6%	236	6%	269	6%
Power tool or hand tool use	49	1%	51	1%	81	2%
Insect or animal bite	62	1%	65	2%	55	1%
Repetitive motion	726	16%	549	13%	646	16%
Vehicle Collision	558	12%	538	13%	481	12%
Shoveling/excavating	323	7%	281	7%	287	7%
Equipment operation	48	1%	45	1%	34	1%
Exposed to harmful substance	49	1%	57	1%	43	1%
Electrical contact	20	0%	15	0%	21	1%
Fires, explosions	335	7%	354	8%	321	8%
Hearing loss	135	3%	95	2%	135	3%
Eye injury	15	0%	24	1%	29	1%
Heat exhaustion	89	2%	68	2%	84	2%
All Others	721	16%	659	16%	573	14%
Leading other:						
- Foreign Body		- Concussion				
- Eye Injury / Foreign Matter in Eye		- Dislocation				
- Chipped Tooth		- Hernia				

IV. VEHICULAR CAUSE CATEGORY DATA

AGA collected information associated with vehicular incidents. This data may be used to gain insights into the most common causes and sources of vehicular collisions involving fleet vehicles.

The aggregate data collected is shown below for the following categories:

- Collision initiated by
- Collision type
- Collision location
- Location category
- Collision object
- Company vehicle activity

TABLE 2: Vehicular Incidents	2014		2015		2016	
	Totals	%	Totals	%	Totals	%
A. <u>Collision initiated by</u>						
Company vehicle struck other	2,804	50%	3,286	49%	2,725	46%
Company vehicle struck by other	2,392	43%	2,677	40%	2,706	46%
Unknown / other	411	7%	729	11%	490	8%
B. <u>Collision Type</u>						
Stationary object collision	1,804	31%	1,993	29%	2,089	33%
Rear-end	1,180	20%	1,736	25%	1,499	24%
Animal/pedestrian collision	224	4%	326	5%	354	6%
Head-on collision	63	1%	60	1%	67	1%
Loss of control	98	2%	210	3%	103	2%
Side swipe	730	12%	974	14%	836	13%
Right Angle (“T-Bone”)	258	4%	291	4%	263	4%
Roll over	10	0%	22	0%	15	0%
Unknown/other	1,474	25%	1,310	19%	1,015	16%
C. <u>Collision Location</u>						
On company property	440	9%	609	9%	384	7%
At intersection	798	16%	826	13%	729	14%
On private property	512	10%	450	7%	453	8%
Public parking lot	426	8%	431	7%	348	6%
At right of way	120	2%	121	2%	236	4%
On public road / highway	2,484	49%	3,586	54%	2,686	50%
Unknown/other	319	6%	564	9%	534	10%

TABLE 2: Vehicular Incidents

	2014		2015		2016	
	Totals	%	Totals	%	Totals	%
D. <u>Location Category</u>						
Urban	2,236	59%	2,383	49%	2,310	55%
Non-urban	770	20%	928	19%	863	21%
Rural	466	12%	397	8%	513	12%
Unknown/other	314	8%	1,138	23%	495	12%
E. <u>Collision Object</u>						
Fixed object	1,550	26%	1,621	22%	1,453	23%
Vehicle	3,670	62%	4,825	65%	3,819	60%
Animal	216	4%	299	4%	311	5%
Pedestrian	30	1%	31	0%	25	0%
Debris	107	2%	144	2%	128	2%
Unknown/other	380	6%	539	7%	595	9%
F. <u>Company Vehicle Activity</u>						
Backing	1,011	17%	1,081	15%	875	16%
Stopped	836	14%	1,181	16%	840	15%
Moving Forward	2,798	47%	3,429	47%	2,499	46%
Turning	510	9%	659	9%	512	9%
Parked	352	6%	754	10%	326	6%
Unknown/other	455	8%	258	4%	373	7%

V. 2016 SAFETY ACHIEVEMENT AWARDS FOR EMPLOYEE SAFETY

The following AGA member companies have earned Safety Achievement Awards by experiencing the lowest incident rate for the number of days away from work, restricted or transferred (DART) among companies of their size and type, based upon a maximum figure of 1,960 hours worked per employee.

NOTE: Companies with records of employee death(s) are not eligible for Safety Achievement Awards or Accident Prevention Certificates.

LOCAL DISTRIBUTION COMPANY

- Small: Maine Natural Gas (Brunswick, ME)
Columbia Gas of Maryland (Cumberland, MD)
Citizens Energy Group (Indianapolis, IN)
- Medium-Small: ENSTAR Natural Gas Company (Anchorage, AK)
- Medium-Large: South Carolina Electric & Gas (Columbia, SC)
- Large: Duke Energy (Charlotte, NC)
COMGÁS (Sao Paulo, Brazil)
- Very Large: DTE Gas Company (Detroit, MI)
- Mega: Enbridge Gas Distribution (North York, Ontario)
Gas Natural Fenosa (Barcelona, Spain)

COMBINATION UTILITY

- Small: Florida Public Utilities Co. (Chesapeake Utilities Corp.) (Fernandina Beach, FL)
- Medium: NV Energy (Las Vegas, NV)
- Large: LG&E / KU (Louisville, KY)

TRANSMISSION COMPANY

- Medium: Dow Pipeline Company (Angleton, TX)
- Large: TransCanada (Calgary, AB Canada)

VI. 2016 SAFETY ACHIEVEMENT AWARDS FOR VEHICULAR SAFETY

The following AGA member companies earned Safety Achievement Awards by experiencing the lowest motor vehicle accident rate for companies of their type. **NOTE: *Companies with records of death(s) directly relating to motor vehicles are not eligible for Safety Achievement Awards***

LOCAL DISTRIBUTION COMPANY

Alliant Energy (Madison, WI)

Gas Natural Fenosa (Barcelona, Spain)

COMBINATION UTILITY

Liberty Utilities (Oakville, ON, Canada)

TRANSMISSION COMPANY

TransCanada (Calgary, AB, Canada)

SMALL MEMBER COMPANIES*

Rocky Mount Public Utilities (Rocky Mount, NC)

Columbia Gas of Maryland (Cumberland, MD)

****All companies with a fleet mileage less than 1,000,000 miles were considered a small member***

VII. 2016 INDUSTRY LEADER ACCIDENT PREVENTION

The following AGA member companies have earned Accident Prevention Certificates by achieving a DART-incident rate below the industry average for their company type. ***Companies with records of employee death(s) are not eligible for Accident Prevention Certificates or Safety Achievement Awards.***

LOCAL DISTRIBUTION COMPANIES

SMALL

Citizens Energy Group (Indianapolis, IN)
Columbia Gas of Maryland (Cumberland, MD)
Maine Natural Gas (Brunswick, ME)
Michigan Gas Utilities Company (Monroe, MI)
National Gas & Oil Cooperative (Newark, OH)
Roanoke Gas Company (Roanoke, VA)

MEDIUM-SMALL

Chesapeake Utilities Corp (Dover, DE)
Dominion Hope Gas (Clarksburg, WV)
ENSTAR Natural Gas (Anchorage, AK)
Knoxville Utilities Board (Knoxville, TN)
Minnesota Energy Resources Corporation – Integrys
(Rosemount, MN)
North Shore Gas Company (Waukegan, IL)
Summit Utilities (Littleton, CO)
UNS Gas Inc (Tucson, AZ)

MEDIUM-LARGE

Arkansas Oklahoma Gas Corp (Fort Smith, AR)
Columbia Gas of Virginia (Chester, VA)
Intermountain Gas Company (Boise, ID)
South Carolina Electric and Gas (Cayce, SC)
The Gas Company, LLC (Honolulu, HI)

LARGE

Alliant Energy (Madison, WI)
Columbia Gas of Pennsylvania (Canonsburg, PA)
Comgas (Sao Paulo, BRAZIL)
Duke Energy (Charlotte, NC)
PSNC Energy (Gastonia, NC)
TECO Peoples Gas (Tampa, FL)

VERY LARGE

Columbia Gas of Ohio (Columbus, OH)
Dominion East Ohio (Cleveland, OH)
DTE Gas Company (Detroit, MI)
NW Natural (Portland, OR)
Peoples Natural Gas (Pittsburgh, PA)
UGI Utilities Inc (Reading, PA)
Washington Gas Light Company (Washington, DC)

MEGA

Enbridge Gas Distribution (Scarborough, Ontario)
Gas Natural Fenosa (Barcelona, Spain)
ONE Gas Inc. (Tulsa, OK)
Public Service Electric and Gas (Newark, NJ)
Southern Company Gas (Atlanta, GA)
Union Gas Limited, a Spectra Energy company
(Chatham, Ontario)
Xcel Energy (Minneapolis, MN)

COMBINATION UTILITIES

SMALL

Central Hudson Gas & Electric Corp. (Poughkeepsie, NY)
Florida Public Utilities Co. (Chesapeake Utilities Corp.)
(Fernandina Beach, FL)
Gainesville Regional Utilities (Gainesville, FL)
Montana Dakota Utilities (Bismarck, ND)

MEDIUM

Delmarva Power & Light (Wilmington, DE)
Liberty Utilities (Oakville, Ontario)
NorthWestern Energy (Sioux Falls, SD)
NV Energy (Las Vegas, NV)
Orange & Rockland Utilities (Pearl River, NY)
PECO Energy (Philadelphia, PA)
Vectren Corporation (Evansville, IN)

LARGE

Baltimore Gas & Electric Co (Baltimore, MD)
Consolidated Edison Co of New York (New York, NY)
Consumers Energy (Jackson, MI)
LG&E / KU (Lexington, KY)
Northern Indiana Public Service Corp (Merrillville, IN)
Puget Sound Energy (Bellevue, WA)

TRANSMISSION COMPANIES

MEDIUM

Dow Pipeline Company (Angleton, TX)
EQT Midstream (Charleston, WV)
Questar Pipeline Company (Salt Lake City, UT)

LARGE

Columbia Pipeline Group (Houston, TX)
Dominion Transmission, Inc. (Bridgeport, WV)
Enbridge GPP (Houston, TX)
Spectra Energy Corp. (Houston, TX)
TransCanada (Calgary, Alberta)

TABLE 3: 2016 SAFETY DATA FOR LOCAL DISTRIBUTION COMPANIES

Company Name	No. of Employees	Annual Hours Worked	Average hours worked per employee as submitted by member	*Adjusted Annual Hours Worked (1960 hrs per employee factor)	OSHA Recordable Injuries and Illnesses (#injury/Illness) (#DART injuries) (#deaths)	DART Incident Rate based upon hours submitted by member company	*Adjusted DART Incident Rate (1960 hrs per employee)	DART Severity Rate based upon hours submitted by member	*Adjusted DART Severity Rate (1960 hrs per employee)	OSHA Recordable Incident Rate	*Adjusted OSHA Recordable Incident Rate (1960 hrs per employee)
SMALL											
Maine Natural Gas	18	34,161	1,898	35,280	(0)(0)(0)	0.00	0.00	0.00	0.00	0.00	0.00
Columbia Gas of Maryland	61	116,944	1,917	119,560	(0)(0)(0)	0.00	0.00	0.00	0.00	0.00	0.00
Citizens Energy Group	118	233,919	1,982	231,280	(3)(0)(0)	0.00	0.00	0.00	0.00	2.56	2.59
Michigan Gas Utilities Company	159	314,779	1,980	311,640	(5)(1)(0)	0.64	0.64	3.81	3.85	3.18	3.21
Roanoke Gas Company	133	249,985	1,880	260,680	(3)(1)(0)	0.80	0.77	3.20	3.07	2.40	2.30
National Gas & Oil Cooperative	82	183,998	2,244	160,720	(3)(1)(0)	1.09	1.24	5.43	6.22	3.26	3.73
Berkshire Gas Company	146	265,862	1,821	286,160	(5)(3)(0)	2.26	2.10	165.50	153.76	3.76	3.49
Vermont Gas Systems, Inc.	136	258,367	1,900	266,560	(8)(3)(0)	2.32	2.25	215.97	209.33	6.19	6.00
Valley Energy	26	47,832	1,840	50,960	(2)(1)(0)	4.18	3.92	8.36	7.85	8.36	7.85
Rocky Mount Public Utilities	20	31,665	1,583	39,200	(2)(1)(0)	6.32	5.10	157.90	127.55	12.63	10.20
Greenville Utility Commission	82	160,859	1,962	160,720	(7)(5)(0)	6.22	6.22	111.90	112.00	8.70	8.71
CoServ Gas	65	128,149	1,972	127,400	(2)(4)(0)	6.24	6.28	199.77	200.94	3.12	3.14
MEDIUM-SMALL											
ENSTAR Natural Gas Company	227	424,239	1,869	444,920	(2)(0)(0)	0.00	0.00	0.00	0.00	0.94	0.90
Summit Utilities	204	409,746	2,009	399,840	(1)(1)(0)	0.49	0.50	11.71	12.00	0.49	0.50
UNS GAS INC	185	384,800	2,080	362,600	(1)(1)(0)	0.52	0.55	4.68	4.96	0.52	0.55
Knoxville Utilities Board	177	333,405	1,884	346,920	(2)(1)(0)	0.60	0.58	59.99	57.65	1.20	1.15

Company Name	No. of Employees	Annual Hours Worked	Average hours worked per employee as submitted by member	*Adjusted Annual Hours Worked (1960 hrs per employee factor)	OSHA Recordable Injuries and Illnesses (#Injury/Illness) (#DART injuries) (#deaths)	DART Incident Rate based upon hours submitted by member company	*Adjusted DART Incident Rate (1960 hrs per employee)	DART Severity Rate based upon hours submitted by member	*Adjusted DART Severity Rate (1960 hrs per employee)	OSHA Recordable Incident Rate	*Adjusted OSHA Recordable Incident Rate (1960 hrs per employee)
Minnesota Energy Resources Corporation - Integrys	221	423,173	1,915	433,160	(2)(2)(0)	0.95	0.92	13.23	12.93	0.95	0.92
Chesapeake Utilities Corp	170	310,548	1,827	333,200	(4)(2)(0)	1.29	1.20	51.52	48.02	2.58	2.40
North Shore Gas Company	166	304,626	1,835	325,360	(5)(2)(0)	1.31	1.23	19.04	17.83	3.28	3.07
Dominion Hope Gas	193	385,000	1,995	378,280	(4)(3)(0)	1.56	1.59	74.29	75.61	2.08	2.11
Mobile Gas Service Corporation	218	441,481	2,025	427,280	(8)(4)(0)	1.81	1.87	28.54	29.49	3.62	3.74
Columbia Gas Of Kentucky	161	304,120	1,889	315,560	(4)(3)(0)	1.97	1.90	46.69	45.00	2.63	2.54
City Of Richmond Dept. of Public Utilities	224	440,920	1,968	439,040	(7)(5)(0)	2.27	2.28	31.75	31.89	3.18	3.19
Entergy Gas Distribution	215	363,915	1,693	421,400	(10)(6)(0)	3.30	2.85	317.66	274.32	5.50	4.75
MEDIUM-LARGE											
South Carolina Electric & Gas	337	656,772	1,949	660,520	(1)(0)(0)	0.00	0.00	0.00	0.00	0.30	0.30
Intermountain Gas Company	237	452,966	1,911	464,520	(2)(1)(0)	0.44	0.43	11.92	11.62	0.88	0.86
The Gas Company, LLC	329	682,701	2,075	644,840	(5)(2)(0)	0.59	0.62	58.88	62.34	1.46	1.55
Columbia Gas Of Virginia	319	608,568	1,908	625,240	(8)(4)(0)	1.31	1.28	45.68	44.46	2.63	2.56
Arkansas Oklahoma Gas Corp	235	399,423	1,700	460,600	(8)(3)(0)	1.50	1.30	45.07	39.08	4.01	3.47
Cascade Natural Gas Corp	350	656,644	1,876	686,000	(12)(7)(0)	2.13	2.04	17.06	16.33	3.65	3.50
Altagas Utilities, Inc.	236	395,322	1,675	462,560	(6)(5)(0)	2.53	2.16	102.70	87.77	3.04	2.59
SEMCO Energy Gas Company	400	770,269	1,926	784,000	(14)(10)(0)	2.60	2.55	119.18	117.09	3.64	3.57
Metropolitan Utilities District - Omaha	394	834,191	2,117	772,240	(23)(14)(0)	3.36	3.63	89.91	97.12	5.51	5.96
Connecticut Natural Gas	350	644,514	1,841	686,000	(20)(13)(0)	4.03	3.79	116.37	109.33	6.21	5.83

Company Name	No. of Employees	Annual Hours Worked	Average hours worked per employee as submitted by member	*Adjusted Annual Hours Worked (1960 hrs per employee factor)	OSHA Recordable Injuries and Illnesses (#Injury/Illness) (#DART injuries) (#deaths)	DART Incident Rate based upon hours submitted by member company	*Adjusted DART Incident Rate (1960 hrs per employee)	DART Severity Rate based upon hours submitted by member	*Adjusted DART Severity Rate (1960 hrs per employee)	OSHA Recordable Incident Rate	*Adjusted OSHA Recordable Incident Rate (1960 hrs per employee)
Southern Connecticut Gas Co	329	628,277	1,910	644,840	(24)(21)(0)	6.68	6.51	345.71	336.83	7.64	7.44
Memphis Light, Gas & Water	257	528,150	2,055	503,720	(24)(23)(0)	8.71	9.13	323.39	339.08	9.09	9.53
LARGE											
Duke Energy	422	846,954	2,007	827,120	(1)(0)(0)	0.00	0.00	0.00	0.00	0.24	0.24
Comgas	996	2,490,299	2,500	1,952,160	(6)(1)(0)	0.08	0.10	1.04	1.33	0.48	0.61
Alliant Energy	630	1,262,520	2,004	1,234,800	(3)(1)(0)	0.16	0.16	0.79	0.81	0.48	0.49
PSNC Energy	846	1,642,619	1,942	1,658,160	(9)(3)(0)	0.37	0.36	0.00	0.00	1.10	1.09
Columbia Gas Of Pennsylvania	649	1,264,501	1,948	1,272,040	(10)(6)(0)	0.95	0.94	75.13	74.68	1.58	1.57
TECO Peoples Gas	543	1,056,154	1,945	1,064,280	(8)(6)(0)	1.14	1.13	27.65	27.44	1.51	1.50
We Energies	600	1,177,909	1,963	1,176,000	(10)(11)(0)	1.87	1.87	160.45	160.71	1.70	1.70
New Mexico Gas Company	687	1,318,852	1,920	1,346,520	(20)(13)(0)	1.97	1.93	39.88	39.06	3.03	2.97
Columbia Gas Of Massachusetts	676	1,306,150	1,932	1,324,960	(22)(15)(0)	2.30	2.26	94.63	93.29	3.37	3.32
Eversource Energy - Connecticut	860	1,753,073	2,038	1,685,600	(30)(20)(0)	2.28	2.37	109.86	114.26	3.42	3.56
Mountaineer Gas Company	463	879,886	1,900	907,480	(28)(11)(0)	2.50	2.42	85.01	82.43	6.36	6.17
South Jersey Gas Company	590	1,153,083	1,954	1,156,400	(21)(16)(0)	2.78	2.77	108.06	107.75	3.64	3.63
VERY LARGE											
DTE Gas Company	1,669	3,380,461	2,025	3,271,240	(12)(5)(0)	0.30	0.31	12.31	12.72	0.71	0.73
Dominion East Ohio Gas	1,502	3,003,167	1,999	2,943,920	(16)(10)(0)	0.67	0.68	38.89	39.67	1.07	1.09
Columbia Gas Of Ohio	1,069	2,091,277	1,956	2,095,240	(24)(10)(0)	0.96	0.95	23.43	23.39	2.30	2.29

Company Name	No. of Employees	Annual Hours Worked	Average hours worked per employee as submitted by member	*Adjusted Annual Hours Worked (1960 hrs per employee factor)	OSHA Recordable Injuries and Illnesses (#Injury/Illness) (#DART injuries) (#deaths)	DART Incident Rate based upon hours submitted by member company	*Adjusted DART Incident Rate (1960 hrs per employee)	DART Severity Rate based upon hours submitted by member	*Adjusted DART Severity Rate (1960 hrs per employee)	OSHA Recordable Incident Rate	*Adjusted OSHA Recordable Incident Rate (1960 hrs per employee)
UGI Utilities Inc	1,552	2,760,252	1,779	3,041,920	(26)(19)(0)	1.38	1.25	50.21	45.56	1.88	1.71
Peoples Natural Gas	1,172	2,348,521	2,004	2,297,120	(27)(15)(0)	1.28	1.31	82.69	84.54	2.30	2.35
Washington Gas Light Company	1,538	3,211,190	2,088	3,014,480	(33)(20)(0)	1.25	1.33	43.54	46.38	2.06	2.19
NW Natural	1,094	1,988,349	1,818	2,144,240	(32)(15)(0)	1.51	1.40	83.18	77.14	3.22	2.98
Questar Gas Company	1,055	2,113,180	2,003	2,067,800	(28)(15)(1)	1.51	1.55	56.41	57.65	2.65	2.71
National Fuel Gas Distribution	1,400	2,610,384	1,865	2,744,000	(49)(31)(0)	2.38	2.26	137.30	130.61	3.75	3.57
ATCO Gas	1,517	3,076,485	2,028	2,973,320	(67)(44)(0)	2.86	2.96	127.29	131.70	4.36	4.51
Peoples Gas Light & Coke Company	1,422	2,811,289	1,977	2,787,120	(64)(44)(0)	3.13	3.16	183.47	185.07	4.55	4.59
Philadelphia Gas Works	1,617	3,562,740	2,203	3,169,320	(70)(62)(0)	3.48	3.91	59.79	67.21	3.93	4.42
MEGA											
Gas Natural Fenosa	6,188	12,596,338	2,036	12,128,480	(12)(9)(0)	0.14	0.15	7.16	7.44	0.19	0.20
Enbridge Gas Distribution	2,359	4,076,352	1,728	4,623,640	(18)(10)(0)	0.49	0.43	17.07	15.05	0.88	0.78
Union Gas Limited	2,365	4,113,536	1,739	4,635,400	(24)(12)(0)	0.58	0.52	32.38	28.74	1.17	1.04
Xcel Energy	1,787	3,295,228	1,844	3,502,520	(16)(12)(0)	0.73	0.69	44.19	41.57	0.97	0.91
ONE Gas Inc.	3,410	6,795,636	1,993	6,683,600	(52)(23)(0)	0.68	0.69	11.33	11.52	1.53	1.56
Public Service Electric and Gas	2,200	4,978,738	2,263	4,312,000	(26)(20)(0)	0.80	0.93	23.90	27.60	1.04	1.21
Southern Company Gas	5,255	10,209,378	1,943	10,299,800	(85)(61)(0)	1.19	1.18	48.62	48.20	1.67	1.65
Centerpoint Energy Gas	2,982	6,906,229	2,316	5,844,720	(51)(47)(0)	1.36	1.61	53.57	63.31	1.48	1.75
Southwest Gas Corp	2,246	4,252,940	1,894	4,402,160	(51)(40)(0)	1.88	1.82	98.10	94.77	2.40	2.32

Company Name	No. of Employees	Annual Hours Worked	Average hours worked per employee as submitted by member	*Adjusted Annual Hours Worked (1960 hrs per employee factor)	OSHA Recordable Injuries and Illnesses (#Injury/Illness) (#DART injuries) (#deaths)	DART Incident Rate based upon hours submitted by member company	*Adjusted DART Incident Rate (1960 hrs per employee)	DART Severity Rate based upon hours submitted by member	*Adjusted DART Severity Rate (1960 hrs per employee)	OSHA Recordable Incident Rate	*Adjusted OSHA Recordable Incident Rate (1960 hrs per employee)
Southern California Gas Co. (Sempra Energy)	8,272	15,362,797	1,857	16,213,120	(244)(176)(0)	2.29	2.17	138.69	131.41	3.18	3.01
Atmos Energy Corp.	4,736	8,961,695	1,892	9,282,560	(162)(107)(0)	2.39	2.31	102.64	99.09	3.62	3.49
Piedmont Natural Gas Company	1,950	3,822,000	1,960	3,822,000	(76)(53)(0)	2.77	2.77	82.57	82.57	3.98	3.98
Spire Inc. (formerly The Laclede Group)	3,000	6,066,636	2,022	5,880,000	(148)(103)(0)	3.40	3.50	137.64	142.01	4.88	5.03

2016 (Overall LDC)

1.58 1.59 68.75 68.97 2.36 2.36

TABLE 4: 2016 SAFETY DATA FOR COMBINATION UTILITIES

Company Name	No. of Employees	Annual Hours Worked	Average hours worked per employee as submitted by member	*Adjusted Annual Hours Worked (1960 hrs per employee factor)	OSHA Recordable Injuries and Illnesses (#Injury/Illness) (#DART injuries) (#deaths)	DART Incident Rate based upon hours submitted by member company	*Adjusted DART Incident Rate (1960 hrs per employee)	DART Severity Rate based upon hours submitted by member	*Adjusted DART Severity Rate (1960 hrs per employee)	OSHA Recordable Incident Rate	*Adjusted OSHA Recordable Incident Rate (1960 hrs per employee)
SMALL											
Florida Public Utilities Co. (Chesapeake Utilities Corp.)	325	705,721	2,171	637,000	(2)(2)(0)	0.57	0.63	25.22	27.94	0.57	0.63
Gainesville Regional Utilities	255	472,094	1,851	499,800	(5)(2)(0)	0.85	0.80	3.81	3.60	2.12	2.00
Montana Dakota Utilities	1,065	1,963,940	1,844	2,087,400	(21)(9)(0)	0.92	0.86	44.81	42.16	2.14	2.01
Central Hudson Gas & Electric Corp.	1,007	1,971,702	1,958	1,973,720	(50)(11)(0)	1.12	1.11	59.85	59.79	5.07	5.07
New York State Electric & Gas	200	380,635	1,903	392,000	(5)(3)(0)	1.58	1.53	110.34	107.14	2.63	2.55
Madison Gas & Electric Co.	707	1,373,804	1,943	1,385,720	(26)(13)(0)	1.89	1.88	40.03	39.69	3.79	3.75
Unitil	500	1,060,866	2,122	980,000	(12)(10)(0)	1.89	2.04	53.73	58.16	2.26	2.45
Empire District (A Liberty Utilities Co.)	746	1,440,212	1,931	1,462,160	(32)(17)(0)	2.36	2.33	73.74	72.63	4.44	4.38
Rochester Gas & Electric Corp	144	274,181	1,904	282,240	(9)(7)(0)	5.11	4.96	220.29	214.00	6.57	6.38
Westfield Gas + Electric	24	48,890	2,037	47,040	(2)(2)(0)	8.18	8.50	24.54	25.51	8.18	8.50
MEDIUM											
NV Energy	2,490	5,035,185	2,022	4,880,400	(17)(5)(0)	0.20	0.20	10.96	11.31	0.68	0.70
Liberty Utilities	1,336	2,632,088	1,970	2,618,560	(10)(4)(0)	0.30	0.31	27.89	28.03	0.76	0.76
NorthWestern Energy	1,604	3,208,000	2,000	3,143,840	(21)(6)(0)	0.37	0.38	26.56	27.10	1.31	1.34
PECO Energy	2,532	5,610,219	2,216	4,962,720	(18)(11)(0)	0.39	0.44	23.46	26.52	0.64	0.73
Vectren Corporation	1,894	3,432,003	1,812	3,712,240	(24)(15)(0)	0.87	0.81	21.04	19.45	1.40	1.29
Orange & Rockland Utilities	1,148	2,334,653	2,034	2,250,080	(22)(11)(0)	0.94	0.98	29.13	30.22	1.88	1.96

Company Name	No. of Employees	Annual Hours Worked	Average hours worked per employee as submitted by member	*Adjusted Annual Hours Worked (1960 hrs per employee factor)	OSHA Recordable Injuries and Illnesses (#injury/illness) (#DART injuries) (#deaths)	DART Incident Rate based upon hours submitted by member company	*Adjusted DART Incident Rate (1960 hrs per employee)	DART Severity Rate based upon hours submitted by member	*Adjusted DART Severity Rate (1960 hrs per employee)	OSHA Recordable Incident Rate	*Adjusted OSHA Recordable Incident Rate (1960 hrs per employee)
Delmarva Power & Light	1,377	2,538,874	1,844	2,698,920	(20)(15)(0)	1.18	1.11	66.49	62.54	1.58	1.48
Black Hills Corporation	1,694	3,523,015	2,080	3,320,240	(38)(23)(0)	1.31	1.39	80.33	85.23	2.16	2.29
Wisconsin Public Service Corp	1,323	2,547,619	1,926	2,593,080	(29)(20)(0)	1.57	1.54	86.90	85.38	2.28	2.24
Avista Corporation	1,749	3,284,493	1,878	3,428,040	(59)(28)(0)	1.70	1.63	38.06	36.46	3.59	3.44
LARGE											
LG&E / KU	3,606	6,781,267	1,881	7,067,760	(38)(12)(0)	0.35	0.34	22.74	21.82	1.12	1.08
Ameren Illinois	3,270	6,553,080	2,004	6,409,200	(43)(13)(1)	0.43	0.44	28.29	28.93	1.31	1.34
Puget Sound Energy	2,972	5,501,516	1,851	5,825,120	(37)(13)(0)	0.47	0.45	14.25	13.46	1.35	1.27
Consumers Energy	7,466	16,597,456	2,223	14,633,360	(77)(41)(0)	0.49	0.56	32.92	37.34	0.93	1.05
Consolidated Edison Co. of New York	13,694	27,201,433	1,986	26,840,240	(161)(102)(0)	0.75	0.76	20.57	20.85	1.18	1.20
Northern Indiana Public Service Co.	2,995	5,845,091	1,952	5,870,200	(43)(23)(0)	0.79	0.78	37.57	37.41	1.47	1.47
Baltimore Gas & Electric Co.	3,061	6,763,405	2,210	5,999,560	(39)(31)(0)	0.92	1.03	38.03	42.87	1.15	1.30
San Diego Gas & Electric	4,134	8,491,920	2,054	8,102,640	(89)(51)(0)	1.20	1.26	72.37	75.85	2.10	2.20
National Grid	15,706	34,103,866	2,171	30,783,760	(399)(236)(0)	1.38	1.53	87.24	96.65	2.34	2.59
Pacific Gas & Electric	24,605	48,269,076	1,962	48,225,800	(653)(412)(1)	1.71	1.71	136.08	136.21	2.71	2.71

2016 (overall Combo)

1.10 1.13 66.64 68.88 1.91 1.97

TABLE 5: 2016 SAFETY DATA FOR TRANSMISSION COMPANIES

Company Name	No. of Employees	Annual Hours Worked	Average hours worked per employee as submitted by member	*Adjusted Annual Hours Worked (1960 hrs per employee factor)	OSHA Recordable Injuries and Illnesses (#Injury/Illness) (#DART injuries) (#deaths)	DART Incident Rate based upon hours submitted by member company	*Adjusted DART Incident Rate (1960 hrs per employee)	DART Severity Rate based upon hours submitted by member	*Adjusted DART Severity Rate (1960 hrs per employee)	OSHA Recordable Incident Rate	*Adjusted OSHA Recordable Incident Rate (1960 hrs per employee)
MEDIUM											
Dow Pipeline Company	122	253,099	2,075	239,120	(0)(0)(0)	0.00	0.00	0.00	0.00	0.00	0.00
EQT Midstream	575	1,376,247	2,393	1,127,000	(6)(2)(0)	0.29	0.35	0.00	0.00	0.87	1.06
Questar Pipeline Company	249	498,774	2,003	488,040	(3)(1)(0)	0.40	0.41	25.26	25.82	1.20	1.23
Southern Star Central Gas Pipeline	481	895,830	1,862	942,760	(10)(4)(0)	0.89	0.85	101.14	96.10	2.23	2.12
National Fuel Gas Supply Corp.	401	780,588	1,947	785,960	(8)(5)(0)	1.28	1.27	58.42	58.02	2.05	2.04
Eastern Shore Natural Gas Co.	53	100,788	1,902	103,880	(3)(2)(0)	3.97	3.85	13.89	13.48	5.95	5.78
LARGE											
TransCanada	1,222	2,156,555	1,765	2,395,120	(3)(2)(0)	0.19	0.17	13.82	12.44	0.28	0.25
Dominion Transmission, Inc.	1,444	2,830,240	1,960	2,830,240	(13)(3)(0)	0.21	0.21	20.35	20.35	0.92	0.92
Spectra Energy Corp.	3,578	7,386,407	2,064	7,012,880	(25)(8)(0)	0.22	0.23	13.81	14.54	0.68	0.71
Columbia Pipeline Group	1,945	3,811,469	1,960	3,812,200	(13)(5)(0)	0.26	0.26	11.33	11.33	0.68	0.68
Enbridge GPP	1,244	2,727,142	2,192	2,438,240	(12)(5)(0)	0.37	0.41	20.61	23.05	0.88	0.98
Energy Transfer Corp	5,088	9,194,577	1,807	9,972,480	(76)(27)(0)	0.59	0.54	20.08	18.51	1.65	1.52
Kinder Morgan Incorporated	3,956	9,250,602	2,338	7,753,760	(57)(32)(0)	0.69	0.83	27.03	32.24	1.23	1.47

2016 (Overall Transmission)

0.47 0.48 21.17 21.89 1.11 1.15

TABLE 6: 2016 DRIVING DATA FOR LOCAL DISTRIBUTION COMPANIES

Company Name	Number of Vehicles	Total Miles Driven - (number of miles driven with company owned and leased vehicles)	Number of Reportable Motor Vehicle Accidents	Number of Preventable Motor Vehicle Accidents	Reportable Motor Vehicle Accident rate per 1,000,000 miles driven	Preventable Motor Vehicle Accident rate per 1,000,000 miles driven	Average Direct Cost per Reportable Motor Vehicle Accident
Gas Natural Fenosa	1,901	23,477,221	6	3	0.26	0.13	
Alliant Energy	229	2,999,980	3	3	1.00	1.00	\$143
Altgas Utilities, Inc.	125	1,888,295	5	2	2.65	1.06	\$1,893
Union Gas Limited	800	12,264,208	34	23	2.77	1.88	\$5,974
Mountaineer Gas Company	368	4,300,000	13	7	3.02	1.63	
ONE Gas Inc.	2,012	29,248,751	91	79	3.11	2.70	
ENSTAR Natural Gas Company	185	1,408,881	5	3	3.55	2.13	\$1,254
We Energies	393	4,275,492	16	5	3.74	1.17	
Columbia Gas Of Pennsylvania	644	7,349,701	28	12	3.81	1.63	
CoServ Gas	64	1,007,251	4	2	3.97	1.99	
Peoples Natural Gas	923	11,118,551	45	28	4.05	2.52	
New Mexico Gas Company	0	6,005,850	26	13	4.33	2.16	\$2,500
SEMCO Energy Gas Company	277	3,935,462	18	9	4.57	2.29	\$3,422
Questar Gas Company	848	10,846,390	50	24	4.61	2.21	
Columbia Gas Of Virginia	373	4,938,207	23	13	4.66	2.63	
Chesapeake Utilities Corp	112	1,917,039	9	3	4.69	1.56	
Columbia Gas Of Ohio	1,231	14,444,739	68	25	4.71	1.73	
Centerpoint Energy Gas	3,790	42,573,469	202	49	4.74	1.15	\$2,186
Eversource Energy - Connecticut	650	6,495,088	31	13	4.77	2.00	
Enbridge Gas Distribution	939	14,586,689	71	44	4.87	3.02	\$2,833

Company Name	Number of Vehicles	Total Miles Driven - (number of miles driven with company owned and leased vehicles)	Number of Reportable Motor Vehicle Accidents	Number of Preventable Motor Vehicle Accidents	Reportable Motor Vehicle Accident rate per 1,000,000 miles driven	Preventable Motor Vehicle Accident rate per 1,000,000 miles driven	Average Direct Cost per Reportable Motor Vehicle Accident
Dominion Hope Gas	151	2,023,555	10	8	4.94	3.95	
Southern Company Gas	3,084	41,816,631	210	106	5.02	2.53	\$1,500
Dominion East Ohio Gas	1,112	12,697,466	65	35	5.12	2.76	\$2,416
Atmos Energy Corp.	3,651	50,012,281	258	-	5.16	0.00	\$2,641
Intermountain Gas Company	213	2,700,723	14	7	5.18	2.59	\$1,800
Spire Inc. (formerly The Laclede Group)	2,147	25,810,051	134	70	5.19	2.71	
DTE Gas Company	1,858	12,788,665	72	43	5.63	3.36	\$4,428
Xcel Energy	6,839	49,060,669	280	182	5.71	3.71	
ATCO Gas	1,009	11,911,528	70	26	5.88	2.18	\$1,872
Columbia Gas Of Kentucky	166	2,041,142	12	6	5.88	2.94	
Arkansas Oklahoma Gas Corp	119	1,742,206	11	6	6.31	3.44	\$907
Summit Utilities	168	2,374,872	15	6	6.32	2.53	
TECO Peoples Gas	402	7,403,352	48	13	6.48	1.76	
Southern Connecticut Gas Co	100	2,586,720	17	8	6.57	3.09	
South Carolina Electric and Gas	230	3,436,363	23	7	6.69	2.04	\$450
Columbia Gas Of Massachussetts	524	4,954,258	34	13	6.86	2.62	
Public Service Electric and Gas	1,008	22,909,857	160	79	6.98	3.45	
PSNC Energy	545	8,833,363	62	20	7.02	2.26	\$6,409
Southwest Gas Corp	1,546	19,226,587	137	79	7.13	4.11	\$1,648
South Jersey Gas Company	308	3,787,310	27	17	7.13	4.49	\$695
UGI Utilities Inc	871	11,310,784	87	46	7.69	4.07	-

Company Name	Number of Vehicles	Total Miles Driven - (number of miles driven with company owned and leased vehicles)	Number of Reportable Motor Vehicle Accidents	Number of Preventable Motor Vehicle Accidents	Reportable Motor Vehicle Accident rate per 1,000,000 miles driven	Preventable Motor Vehicle Accident rate per 1,000,000 miles driven	Average Direct Cost per Reportable Motor Vehicle Accident
New Jersey Natural Gas Company	672	6,317,337	51	14	8.07	2.22	-
UNS GAS INC	175	1,949,319	16	13	8.21	6.67	\$1,563
NW Natural	593	6,726,132	56	39	8.33	5.80	-
Cascade Natural Gas Corp	328	3,692,441	32	17	8.67	4.60	-
The Gas Company, LLC	205	2,220,053	20	11	9.01	4.95	\$387
Southern California Gas Co. (Sempra Energy)	5,292	49,077,461	446	163	9.09	3.32	-
Entergy Gas Distribution	163	1,637,989	17	8	10.38	4.88	\$2,500
Connecticut Natural Gas	207	2,166,041	24	9	11.08	4.16	\$2,500
Piedmont Natural Gas Company	1,142	18,042,379	212	92	11.75	5.10	\$2,002
Metropolitan Utilities District - Omaha	164	1,381,342	18	10	13.03	7.24	\$1,867
Washington Gas Light Company	689	4,202,063	59	28	14.04	6.66	\$1,127
National Fuel Gas Distribution	653	5,475,287	80	29	14.61	5.30	\$998
Mobile Gas Service Corporation	110	1,233,967	21	10	17.02	8.10	
Duke Energy	240	1,800,480	35	15	19.44	8.33	-
Comgas	427	3,938,082	85	41	21.58	10.41	\$189
Philadelphia Gas Works	651	5,101,320	131	68	25.68	13.33	
Totals + Average for LDCs	53,626	619,471,340	3,797	1,704	6.13	2.75	

TABLE 7: 2016 DRIVING DATA FOR COMBINATION UTILITIES

Company Name	Number of Vehicles	Total Miles Driven - (number of miles driven with company owned and leased vehicles)	Number of Reportable Motor Vehicle Accidents	Number of Preventable Motor Vehicle Accidents	Reportable Motor Vehicle Accident rate per 1,000,000 miles driven	Preventable Motor Vehicle Accident rate per 1,000,000 miles driven	Average Direct Cost per Reportable Motor Vehicle Accident
Liberty Utilities	453	5, ,226	12	5	2.03	0.85	
Florida Public Utilities Co. (Chesapeake Utilities Corp.)	356	3,906,008	9	3	2.30	0.77	\$2,416
NV Energy	1,451	9,458,329	23	23	2.43	2.43	
Ameren Illinois	1,881	32,899,798	102	25	3.10	0.76	
New York State Electric & Gas	228	2,532,754	9	4	3.55	1.58	
Consumers Energy	3,829	45,465,116	191	203	4.20	4.46	
Northern Indiana Public Service Co.	1,600	19,353,057	85	34	4.39	1.76	
NorthWestern Energy	1,194	12,722,620	56	29	4.40	2.28	\$2,332
Delmarva Power & Light	1,139	6,415,308	29	12	4.52	1.87	\$1,500
Vectren Corporation	970	11,375,606	52	28	4.57	2.46	\$1,763
Black Hills Corporation	1,683	18,674,565	87	42	4.66	2.25	
National Grid	9,400	70,000,000	412	286	5.89	4.09	
Pacific Gas & Electric	9,213	150,109,939	919	384	6.12	2.56	
Avista Corporation	782	7,423,050	47	30	6.33	4.04	\$1,284
Empire District (A Liberty Utilities Co.)	394	4,840,561	31	24	6.40	4.96	
LG&E / KU	1,199	15,030,075	104	62	6.92	4.13	
Baltimore Gas & Electric Co.	1,290	13,547,701	134	35	9.89	2.58	\$7,500
Unitil	0	2,974,722	31	20	10.42	6.72	

Company Name	Number of Vehicles	Total Miles Driven - (number of miles driven with company owned and leased vehicles)	Number of Reportable Motor Vehicle Accidents	Number of Preventable Motor Vehicle Accidents	Reportable Motor Vehicle Accident rate per 1,000,000 miles driven	Preventable Motor Vehicle Accident rate per 1,000,000 miles driven	Average Direct Cost per Reportable Motor Vehicle Accident
Rochester Gas & Electric Corp	122	1,852,074	20	8	10.80	4.32	
Orange & Rockland Utilities	532	5,168,196	56	31	10.84	6.00	\$4,839
Central Hudson Gas & Electric Corp.	700	4,600,906	51	18	11.08	3.91	\$3,000
PECO Energy	1,155	11,640,942	131	30	11.25	2.58	\$1,585
Madison Gas & Electric Co.	235	2,204,000	27	18	12.25	8.17	
Puget Sound Energy	1,065	7,350,000	103	52	14.01	7.07	\$1,600
Memphis Light, Gas & Water	215	1,119,004	30	10	26.81	8.94	\$2,500
Totals + Average for Combo Utilities	43,663	489,139,171	2,937	1,483	6.00	3.03	

TABLE 8: 2016 DRIVING DATA FOR TRANSMISSION COMPANIES

Company Name	Number of Vehicles	Total Miles Driven - (number of miles driven with company owned and leased vehicles)	Number of Reportable Motor Vehicle Accidents	Number of Preventable Motor Vehicle Accidents	Reportable Motor Vehicle Accident rate per 1,000,000 miles driven	Preventable Motor Vehicle Accident rate per 1,000,000 miles driven	Average Direct Cost per Reportable Motor Vehicle Accident
TransCanada	464	12,463,603	17	13	1.36	1.04	
Energy Transfer Corp	3,648	53,710,602	83	83	1.55	1.55	
Southern Star Central Gas Pipeline	337	6,596,980	11	9	1.67	1.36	
Dow Pipeline Company	119	2,087,613	5	1	2.40	0.48	\$3,250
Kinder Morgan Inc	3,630	62,865,335	166	73	2.64	1.16	
Spectra Energy Corp.	1,244	21,436,395	65	44	3.03	2.05	\$1,135
Enbridge GPP	-	16,316,684	50	27	3.06	1.65	
Questar Pipeline Company	173	3,075,398	10	5	3.25	1.63	
Dominion Transmission, Inc.	897	11,431,112	69	16	6.04	1.40	\$2,000
National Fuel Gas Supply Corp.	279	2,395,834	21	14	8.77	5.84	\$1,012
EQT Midstream	545	8,135,020	Does Not Track	3	N/A	0.37	
Columbia Pipeline Group	1,053	16,412,548	Does Not Track	7	N/A	0.43	
Totals + Averages for Transmission	12,389	216,927,124	497	295	2.58	1.36	

TABLE 9: 2016 DRIVING DATA FOR SMALL COMPANIES

Company Name	Number of Vehicles	Total Miles Driven - (number of miles driven with company owned and leased vehicles)	Number of Reportable Motor Vehicle Accidents	Number of Preventable Motor Vehicle Accidents	Reportable Motor Vehicle Accident rate per 1,000,000 miles driven	Preventable Motor Vehicle Accident rate per 1,000,000 miles driven	Average Direct Cost per Reportable Motor Vehicle Accident
<u>Small Companies*</u>							
Rocky Mount Public Utilities	15	100,505	0	0	0.00	0.00	
Columbia Gas Of Maryland	67	715,034	1	1	1.40	1.40	
National Gas & Oil Cooperative	55	917,505	3	1	3.27	1.09	\$ -
Vermont Gas Systems, Inc.	71	922,284	5	3	5.42	3.25	\$1,000
Roanoke Gas Company	91	605,859	4	3	6.60	4.95	
Berkshire Gas Company	79	862,245	6	4	6.96	4.64	\$1,986
Gainesville Regional Utilities	82	394,415	3	2	7.61	5.07	
Knoxville Utilities Board	105	559,180	5	2	8.94	3.58	\$500
Eastern Shore Natural Gas Co.	27	557,968	6	2	10.75	3.58	\$1,534
Citizens Energy Group	71	661,010	9	2	13.62	3.03	
City Of Richmond Dept. of Public Utilities	102	973,533	19	13	19.52	13.35	
Greenville Utility Commission	59	509,417	13	3	25.52	5.89	\$4,461
Valley Energy	22	156,375	4	4	25.58	25.58	
Maine Natural Gas	14	34,161	2	1	58.55	29.27	
Totals + Averages for Small Members	860	7,969,491	80	41	10.04	5.14	-

**Those companies with less than 1,000,000 miles driven are considered as small companies for the purposes of this report*

TABLE 10: COMPANY CHARACTERISTICS FOR LOCAL DISTRIBUTION COMPANIES

(not all companies in this sector provided data)

Company Name	Estimate % of company's meter read by AMR/AMI	Estimate % of field meter reading done by contractors	Estimate % of gas construction work done by contractors	Estimate % of gas maintenance work done by contractors	Estimate % of gas service work done by contractors	Estimate % of locating done by contractors
SMALL LDCs						
Berkshire Gas Company	100	0	90	0	0	0
Citizens Energy Group	20	0	10	5	100	90
CoServ Gas	1	80	97	70	98	100
Greenville Utility Commission	100	0	0	0	0	0
Maine Natural Gas	0	100	95	5	95	0
Michigan Gas Utilities Company	0	0	10	25	60	0
National Gas & Oil Cooperative	85	99	92	12	7	0
Roanoke Gas Company	1	100	84	30	74	100
Rocky Mount Public Utilities	99	0	20	0	0	0
Valley Energy	80	0	15	0	0	0
Vermont Gas Systems, Inc.	100	0	85	5	5	0
MEDIUM-SMALL LDCs						
Chesapeake Utilities Corp	81	0	95	10	0	3
City Of Richmond Dept. of Public Utilities	100	0	96	95	0	60
Columbia Gas Of Kentucky	0	0	0	0	0	0
Dominion Hope Gas	100	0	88	0	0	80
ENSTAR Natural Gas Company	0	0	80	0	0	0
Entergy Gas Distribution	40	95	70	0	0	0
Knoxville Utilities Board	30	98	50	30	65	94

Company Name	Estimate % of company's meter read by AMR/AMI	Estimate % of field meter reading done by contractors	Estimate % of gas construction work done by contractors	Estimate % of gas maintenance work done by contractors	Estimate % of gas service work done by contractors	Estimate % of locating done by contractors
MEDIUM-SMALL LDCs (cont'd)						
Minnesota Energy Resources Corporation - Integrys	0	24	100	0	0	78
Mobile Gas Service Corporation	0	0	90	10	0	90
North Shore Gas Company	0	0	80	0	0	100
Summit Utilities	90	0	90	0	0	0
UNS GAS INC	45	0	50	0	0	0
MEDIUM-LARGE LDCs						
Altagas Utilities, Inc.	100	0	90	0	0	0
Arkansas Oklahoma Gas Corp	67	0	40	20	0	0
Cascade Natural Gas Corp	100	0	90	0	5	0
Connecticut Natural Gas	100	0	95	15	0	0
Intermountain Gas Company	100	0	90	0	0	30
Memphis Light, Gas & Water	0	0	0	0	0	0
Metropolitan Utilities District - Omaha	80	0	50	0	0	0
SEMCO Energy Gas Company	99	0	95	0	0	0
South Carolina Electric and Gas	100	25	90	0	0	65
Southern Connecticut Gas Co	99	99	97	10	0	25
The Gas Company, LLC	34	0	0	0	0	0

Company Name	Estimate % of company's meter read by AMR/AMI	Estimate % of field meter reading done by contractors	Estimate % of gas construction work done by contractors	Estimate % of gas maintenance work done by contractors	Estimate % of gas service work done by contractors	Estimate % of locating done by contractors
LARGE LDCs						
Alliant Energy	43	4	75	20	0	100
Comgas	0	100	100	55	60	0
Duke Energy	65	20	90	10	60	99
Eversource Energy - Connecticut	98	0	90	5	5	0
Mountaineer Gas Company	15	0	20	20	0	0
New Mexico Gas Company	68	0	50	10	0	0
PSNC Energy	100	99	93	15	0	0
South Jersey Gas Company	0	99	90	40	15	100
TECO Peoples Gas	99	35	85	13	5	6
We Energies	90	20	85	30	40	100
VERY LARGE LDCs						
ATCO Gas	100	0	65	0	3	90
Columbia Gas Of Ohio	0	0	0	0	0	0
Dominion East Ohio Gas	100	0	0	0	0	0
DTE Gas Company	71	76	67	0	0	20
National Fuel Gas Distribution	0	0	70	5	0	28
New Jersey Natural Gas Company	43	0	90	10	10	95
NW Natural	100	0	49	0	0	88
Peoples Natural Gas	33	86	56	0	20	0
Philadelphia Gas Works	99	0	15	0	0	0

Company Name	Estimate % of company's meter read by AMR/AMI	Estimate % of field meter reading done by contractors	Estimate % of gas construction work done by contractors	Estimate % of gas maintenance work done by contractors	Estimate % of gas service work done by contractors	Estimate % of locating done by contractors
VERY LARGE LDCs (cont'd)						
Questar Gas Company	99	0	90	5	0	90
UGI Utilities Inc	87	0	84	89	0	1
Washington Gas Light Company	99	0	100	35	7	100
MEGA LDCs						
Atmos Energy Corp.	25	9	52	23	0	70
Centerpoint Energy Gas	100	0	40	40	20	15
Enbridge Gas Distribution	0	100	86	35	100	100
Gas Natural Fenosa	0	100	100	60	100	8
ONE Gas Inc.	57	70	95	20	23	98
Piedmont Natural Gas Company	100	0	90	100	10	100
Public Service Electric and Gas	10	0	70	10	60	0
Southern California Gas Co. (Sempra Energy)	97	0	40	2	2	0
Southern Company Gas	50	0	85	20	85	100
Southwest Gas Corp	100	5	80	15	20	75
Spire Inc. (formerly The Laclede Group)	98	35	50	10	0	94
Union Gas Limited	2	97	95	25	86	98
Xcel Energy	90	1	97	25	84	80

TABLE 11: COMPANY CHARACTERISTICS FOR COMBINATION UTILITIES

(not all companies in this sector provided data)

Company Name	% of Combination Company's annual hours represented by natural gas	Estimate % of company's meter read by AMR/AMI	Estimate % of field meter reading done by contractors	Estimate % of gas construction work done by contractors	Estimate % of gas maintenance work done by contractors	Estimate % of gas service work done by contractors	Estimate % of locating done by contractors
SMALL COMBINATION UTILITIES							
Central Hudson Gas & Electric Corp.	20	35	45	65	45	5	99
Florida Public Utilities Co. (Chesapeake Utilities Corp.)	61	8	50	3	25	40	97
Gainesville Regional Utilities	23	0	0	3	0	0	0
Madison Gas & Electric Co.	40	100	0	0	0	0	0
Montana Dakota Utilities	44	95	0	30	10	0	80
New York State Electric & Gas	11	0	0	90	5	95	90
Rochester Gas & Electric Corp	18	0	100	90	5	95	90
Westfield Gas + Electric		93	0	80	20	10	0
MEDIUM COMBINATION UTILITIES							
Avista Corporation	28	58	0	65	15	10	95
Black Hills Corporation	97	90	0	68	14	8	43
Delmarva Power & Light	11	98	0	70	10	50	50
Liberty Utilities	41	34	17	35	4	0	0
NV Energy	3	99	0	30	20	0	100
Orange & Rockland Utilities	18	33	0	90	0	0	70
PECO Energy	25	100	0	15	0	0	100
Vectren Corporation	70	67	90	92	23	12	95
Wisconsin Public Service Corp	0	98	0	80	0	0	8

Company Name	% of Combination Company's annual hours represented by natural gas	Estimate % of company's meter read by AMR/AMI	Estimate % of field meter reading done by contractors	Estimate % of gas construction work done by contractors	Estimate % of gas maintenance work done by contractors	Estimate % of gas service work done by contractors	Estimate % of locating done by contractors
LARGE COMBINATION UTILITIES							
Ameren Illinois	28	85	90	70	20	2	100
Baltimore Gas & Electric Co.	12	98	0	96	50	96	100
Consolidated Edison Co. of New York	10	25	0	90	70	40	0
Consumers Energy	Not Provided	1	0	20	6	10	95
LG&E / KU	Not Provided	8	100	72	10	90	100
National Grid	Not Provided	0	0	65	27	38	0
Pacific Gas & Electric	Not Provided	98	0	40	5	0	15
Puget Sound Energy	Not Provided	100	100	96	47	0	95
San Diego Gas & Electric	Not Provided	100	1	20	20	1	0

TABLE 12: COMPANY CHARACTERISTICS FOR TRANSMISSION

(not all companies in this sector provided data)

Company Name	Estimate % of company's meter read by AMR/AMI	Estimate % of field meter reading done by contractors	Estimate % of gas construction work done by contractors	Estimate % of gas maintenance work done by contractors	Estimate % of gas service work done by contractors	Estimate % of locating done by contractors
MEDIUM TRANSMISSION						
Eastern Shore Natural Gas Co.	95	0	100	25	0	0
National Fuel Gas Supply Corp.	0	0	85	15	0	34
LARGE TRANSMISSION						
Dominion Transmission, Inc.	0	0	91	37	0	0
Energy Transfer Corp	0	0	0	0	0	25
TransCanada			100	13		0
Eastern Shore Natural Gas Co.	95	0	100	25	0	0
National Fuel Gas Supply Corp.	0	0	85	15	0	34