

*Report to the*  
**Utah Natural Gas Demand-Side Management  
Task Force**

**Results of DSM Survey of  
North American Gas Utilities**

*January 28, 2004 – Final*

*Prepared by:*



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## 1.0 Executive Summary

This report presents the results of the DSM survey of twenty-nine North American gas utility companies. This survey was conducted by GDS Associates in the late fall of 2003 on behalf of the Utah Gas DSM Advisory Task Force to determine the types of gas DSM and energy efficiency programs offered by selected gas utilities in North America. The list of the utilities to be included in this survey was developed by the GDS Team and approved by the Utah Energy Office and Questar Gas Company. The survey was targeted at the natural gas utilities that are active members of the Consortium for Energy Efficiency (CEE) as well as natural gas utilities in several Western States.

The primary goal for this study was to determine the following:

- The rationale for DSM programs. The survey examines why or why not DSM programs are offered by these twenty-nine gas utilities, and lists the reasons given by some gas companies for not offering gas DSM or energy efficiency programs. And for those gas utilities that do offer such DSM programs, the survey examines the methods for cost recovery of expenditures on the programs, and do these utilities have shareholder incentives.
- Descriptions of the programs each gas utility company offered. This includes detailed data collection on the number and types of programs offered, the average number of programs offered, the frequency that each program is offered, and descriptions of the gas DSM measures with relatively low and high dollar incentives.
- Which benefit/cost test is used the most.
- The availability of gas DSM technical potential studies, any documentation they might have regarding gas DSM, availability of program evaluation studies, and if each utility could send us copies of such information.

### 1.1 Rationale for DSM Programs

Of the thirty gas utility companies included on the list of companies to be surveyed, the GDS Team was able to obtain twenty-nine solid responses. Twenty-one out of the twenty-nine gas utility companies (72%) do offer some type of DSM program. The main reasons these utilities **do offer** DSM programs include the following:

- To meet requirements of regulatory agencies
- to provide customer service
- to help their customers save money
- to delay the need for further capital investments

The eight gas utility companies that **do not offer** DSM programs do not offer such programs for the following reasons:

- there are no regulatory requirements for them to conduct such programs

- they are concerned about lost revenues
- they are concerned about the difficulty of getting cost recovery for program expenditures
- there is no demand from their customers for such programs
- there are no Federal or State laws mandating that they conduct such programs

## **1.2 Cost Recovery Methods**

For those twenty-one gas utility companies that do offer gas DSM programs, there are different methods for cost recovery of the expenditures on the programs. Twelve out of the twenty-one gas utility companies receive recovery through their gas rates. Pacific Gas & Electric, Southwest Gas, South Jersey Gas, and Until (Fitchburg Gas & Electric) have a system benefits charge applied to every therm of gas sold. Xcel Energy-Minnesota recovers costs through a rider on their gas rates. Avista, New England Gas Company, Public Service Electric & Gas, and Southern California Gas were compensated in other forms.

Six companies were allowed to collect shareholder incentives. Most shareholder incentives were based on actual therm savings, program specific metrics, or benefit/cost metrics. Fourteen of the twenty-one companies offering programs were not allowed to collect any type of shareholder incentive.

## **1.3 DSM Programs Offered**

There are many different gas DSM programs offered by the respondents to the survey. The twenty-one companies offering gas DSM programs are listed below in Table 1 along with the number of programs each offers to their customers.

From Table 1 we can see that the number of programs offered ranges from 1 to 20. The average number of programs offered by these twenty-one utilities is eight programs. Table 1 only includes the gas companies that currently offer gas DSM programs.

<b>No.</b>	<b>Company</b>	<b>Number of Gas DSM Programs Offered</b>
1	Enbridge Gas	20
2	Gaz Metropolitan	20
3	Puget Sound Energy	20
4	Xcel Energy – Minnesota	16
5	KeySpan Energy Delivery	14
6	Southern California Gas	13
7	Pacific Gas & Electric	12
8	MidAmerican Energy	9
9	Berkshire Gas	8
10	Vermont Gas Systems, Inc.	6
11	Bay State Gas	5
12	Public Service Electric & Gas	5
13	South Jersey Gas	5
14	Unitil (Fitchburg Gas & Electric)	5
15	Madison Gas & Electric	4
16	Avista	3
17	NW Natural	3
18	New England Gas Company	2
19	Northwestern Energy & Gas	2
20	Questar Gas Company	2
21	Intermountain Gas Company	1
	Average Number of Programs Offered Per Gas Utility (For those 21 gas utilities listed above)	8

#### **1.4 Benefit/Cost Tests**

The purpose of benefit/cost tests is to determine the cost effectiveness of a program. By far the most frequently used benefit/cost test is the Total Resource Cost (TRC) Test (11 mentions). Other frequently used benefit/cost include the Societal Test (five mentions), and the Utility Cost Test (five mentions).

#### **1.5 Natural Gas Avoided Costs**

Thirteen of the twenty-nine survey respondents do have a forecast of natural gas avoided costs, and most (10) of these forecasts are publicly available. It is very important to note that **sixteen** of the survey respondents agreed with the statement that “successful gas DSM programs or energy efficiency information programs can avoid gas distribution costs.” In addition, the majority of the ten publicly available avoided cost forecasts do include avoided gas distribution system costs.

## **1.6 Gas DSM Studies and Documents**

### **1.6.1 Availability of Gas DSM Studies**

Fourteen respondents knew of gas DSM technical potential studies conducted for their service area. A complete list of the technical potential studies that are available from the responding utilities is provided in Section 2 of this report.

### **1.6.2 Data on DSM Measures and Program Evaluation Reports**

Many of the responding gas utility companies did have data on DSM measures regarding incremental costs, savings, and useful lives. Many of the respondents also provided copies of program evaluations of gas utility DSM programs. A complete list of the pertinent technical and program evaluation studies that were provided by the responding utilities is provided in Section 2 of this report.

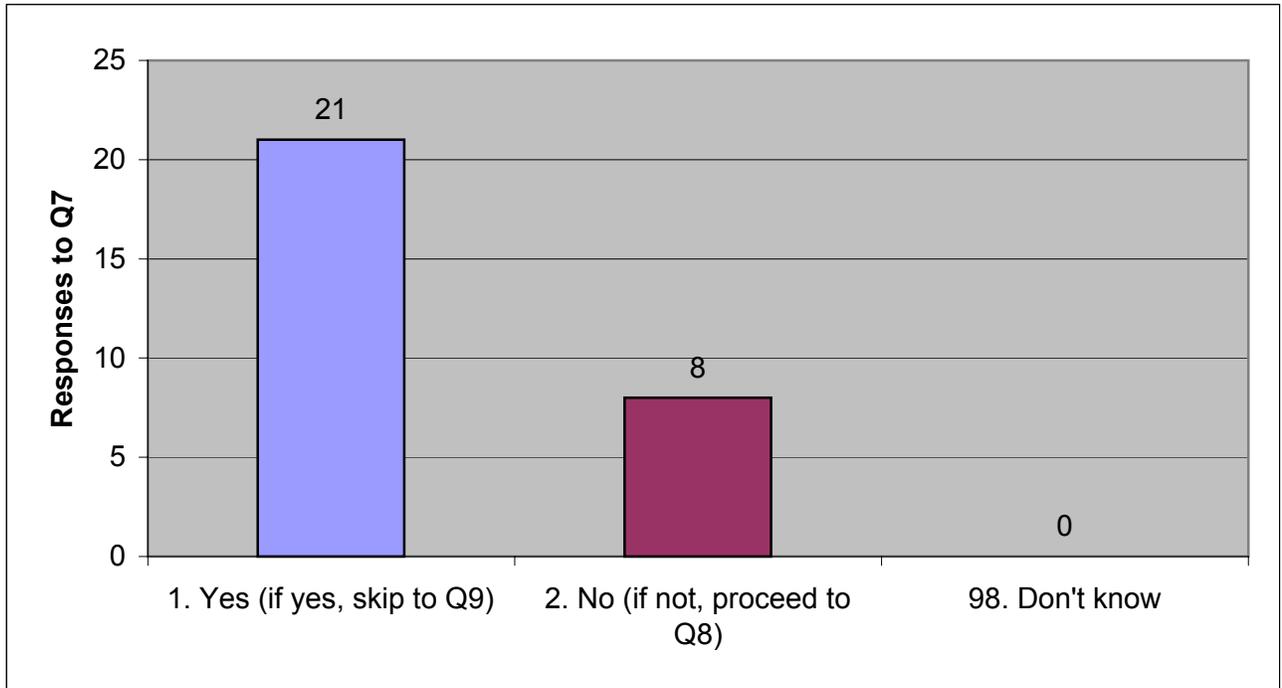
## **1.7 Interest in Survey Results**

All of the gas utility companies are interested in receiving the results from this survey. Vermont Gas was not asked if they wanted to receive the results of the survey, and New England Gas Company did not know if they wanted to receive the results of the survey. All of the gas utility companies (except for Vermont Gas, who was not asked) are willing to share the findings of this survey with the other gas utility companies included in the survey as long as the findings are not listed separately for each respondent.

<b>Q1. List of Respondents to The Survey of Gas DSM and Energy Efficiency Program Practices</b>			
<b>Number</b>	<b>Gas Utility</b>	<b>States Served</b>	<b>Date of Interview</b>
1	Atmos Energy	Colorado, Kansas, Iowa, Missouri, Illinois, Kentucky, Virginia, Tennessee, Georgia, Mississippi, Louisiana, Texas	11/18/2003
2	Avista	California, Idaho, Montana, Oregon, Washington	11/12/2003
3	Bay State Gas	Maine, Massachusetts, New Hampshire	11/13/2003
4	Berkshire Gas	Massachusetts	11/6/2003
5	Enbridge - Ontario	New Brunswick, New York, Ontario, Quebec	11/26/2003
6	Gaz Metropolitan	Quebec, Vermont	11/18/2003
7	Intermountain Gas Company	Idaho	11/18/2003
8	KeySpan Energy Delivery	Massachusetts, New Hampshire, New Jersey, New York	11/25/2003
9	Kinder Morgan	Colorado, Kansas, Nebraska, Ohio, Texas, Wyoming	11/13/2003
10	Madison Gas & Electric	Wisconsin	11/17/2003
11	MidAmerican Energy	Illinois, Iowa, Nebraska, South Dakota	11/11/2003
12	Montana-Dakota Utilities	Montana, North Dakota, South Dakota, Wyoming	11/20/2003
13	New England Gas Co.	Massachusetts, Rhode Island	11/10/2003
14	Northwestern Energy Utility	Montana, Nebraska, South Dakota	11/12/2003
15	NW Natural	Oregon, Washington	11/13/2003
16	Oncor/TXU Gas	Texas	11/18/2003
17	Pacific Gas & Electric	California	11/17/2003
18	Public Service Electric & Gas	New Jersey	11/11/2003
19	Public Service of New Mexico	New Mexico	11/10/2003
20	Puget Sound Energy		11/14/2003
21	Questar Gas	Idaho, Utah, Wyoming	11/11/2003
22	South Jersey Gas	New Jersey	11/19/2003
23	Southern California Gas	California	11/18/2003
24	Southwest Gas	Arizona, California, Nevada	11/18/2003
25	Unitil (Fitchburg Gas & Electric)	Massachusetts, New Hampshire	11/7/2003
26	Vermont Gas Systems, Inc.	Vermont	11/7/2003
27	WE Energies	Michigan, Wisconsin	11/17/2003
28	Xcel Energy-Colorado	Colorado	11/18/2003
29	Xcel Energy-Minnesota	Minnesota	11/18/2003

**Q7. Is your company offering natural gas Energy Efficiency or DSM Programs, including energy efficiency information program?**  
(check one)

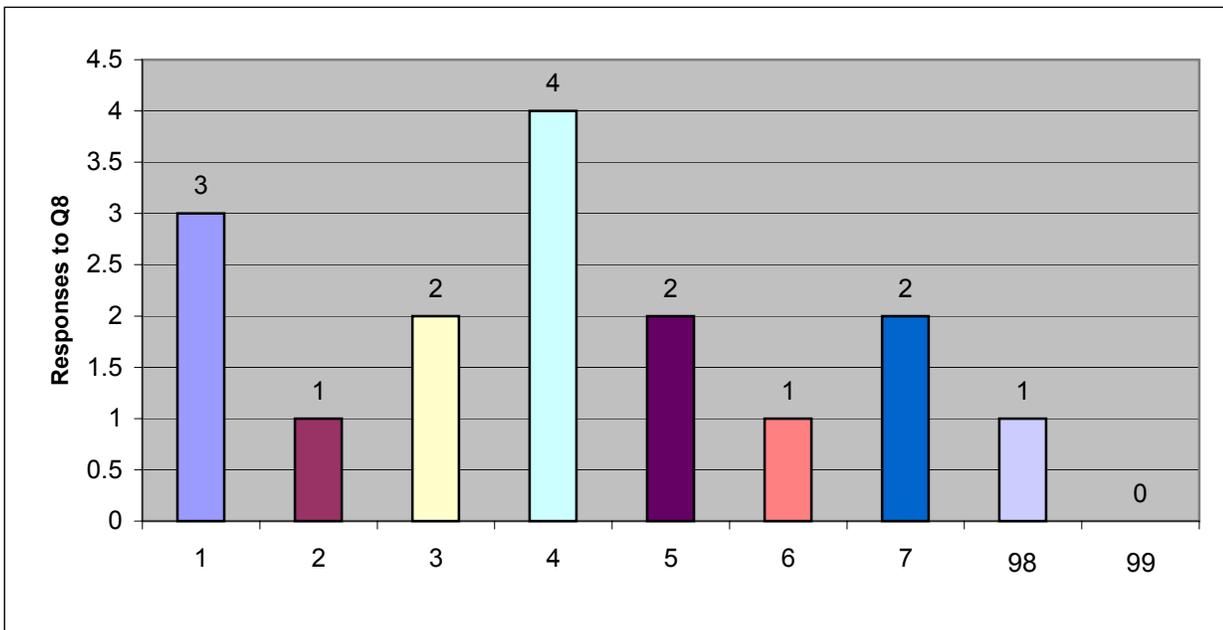
	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes (if yes, skip to Q9)	21	72.41%
2. No (if not, proceed to Q8)	8	27.59%
98. Don't know	0	0.00%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>



## Q8. Why isn't your company offering energy efficiency programs?

(check all that apply - then skip to Q18)  
 (7 of 28 Respondents Do Not Offer DSM Programs)

	Number of Respondents
1. Concerned about lost revenues	3
2. Concerned about adverse rate impacts	1
3. There is no demand from our customers for such programs	2
4. There are not regulatory requirements for us to conduct such programs	4
5. There are no Federal or State laws mandating that we conduct such programs	2
6. Such programs are not cost effective in our service area	1
7. Other	2
98. Don't know	1
99. Not applicable	0



**Listing of Other Responses to Question 8:**

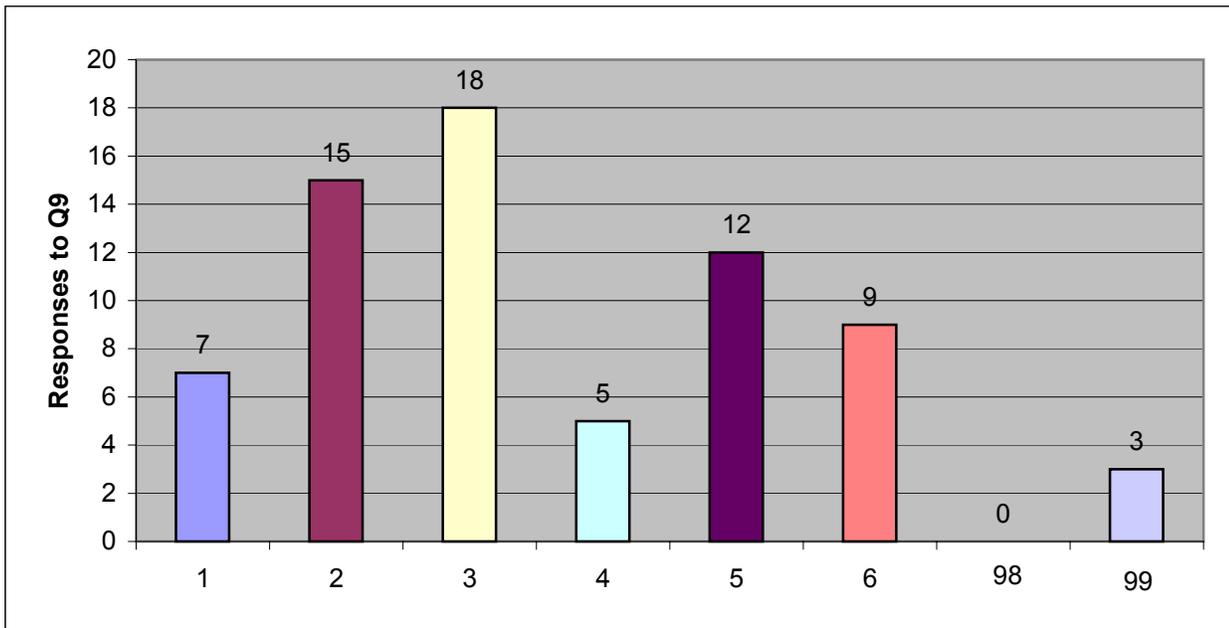
<b>Organization</b>	<b>Response</b>
Montana-Dakota Utilities	Just have not done it.
WE Energies	Offered through "State of Wisconsin Focus on Energy Program"

## Q9. Why is your organization offering Energy Efficiency programs?

(check all that apply)

21 of 28 Respondents Offer Programs

	Number of Respondents
1. To delay the need for future capital investments	7
2. To provide customer service	15
3. Because it is required by regulatory agencies	18
4. To improve the environment	5
5. To help our customers save money	12
6. Other	9
98. Don't know	0
99. Not applicable	3

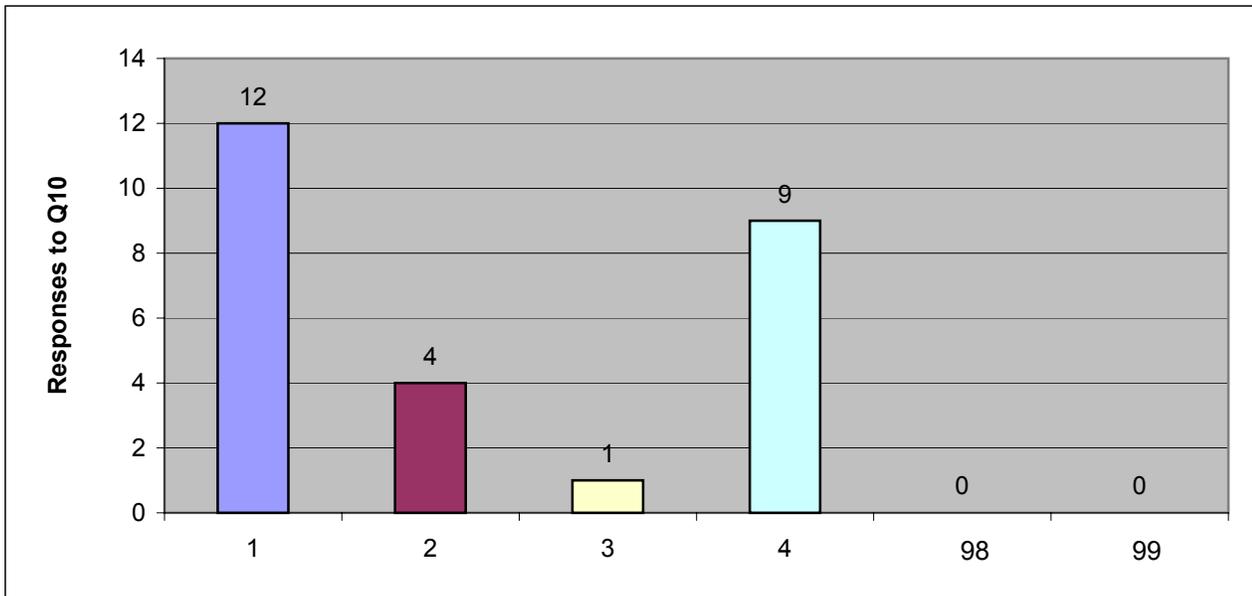


## Listing of Other Responses to Question 9

Avista	Resource competitive. If it reduces peoples usage, they become more competitive.
Enbridge - Ontario	Shareholders
Intermountain Gas Company	Promoted as efficiency in space heat section.
Northwestern Energy Utility	Legislative Requirement
NW Natural	Least cost planning is required by regulators.
Pacific Gas & Electric	Reliability
Questar Gas	Part of a stipulated rate settlement.
Unitil (Fitchburg Gas & Electric)	Capacity shortages - thought it would solve the problems later on.
Vermont Gas Systems, Inc.	A chance to encourage fuel switching.

**Q10. How does your company recover expenditures associated with the costs of administering and marketing Energy Efficiency Programs?**  
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Recovery through gas rates	12	46.15%
2. System benefits charge applied to every therm of gas sold	4	15.38%
3. Rider on gas rates	1	3.85%
4. Other	9	34.62%
98. Don't know	0	0.00%
99. Not applicable	0	0.00%
<b>TOTAL:</b>	<b>26</b>	<b>100.00%</b>

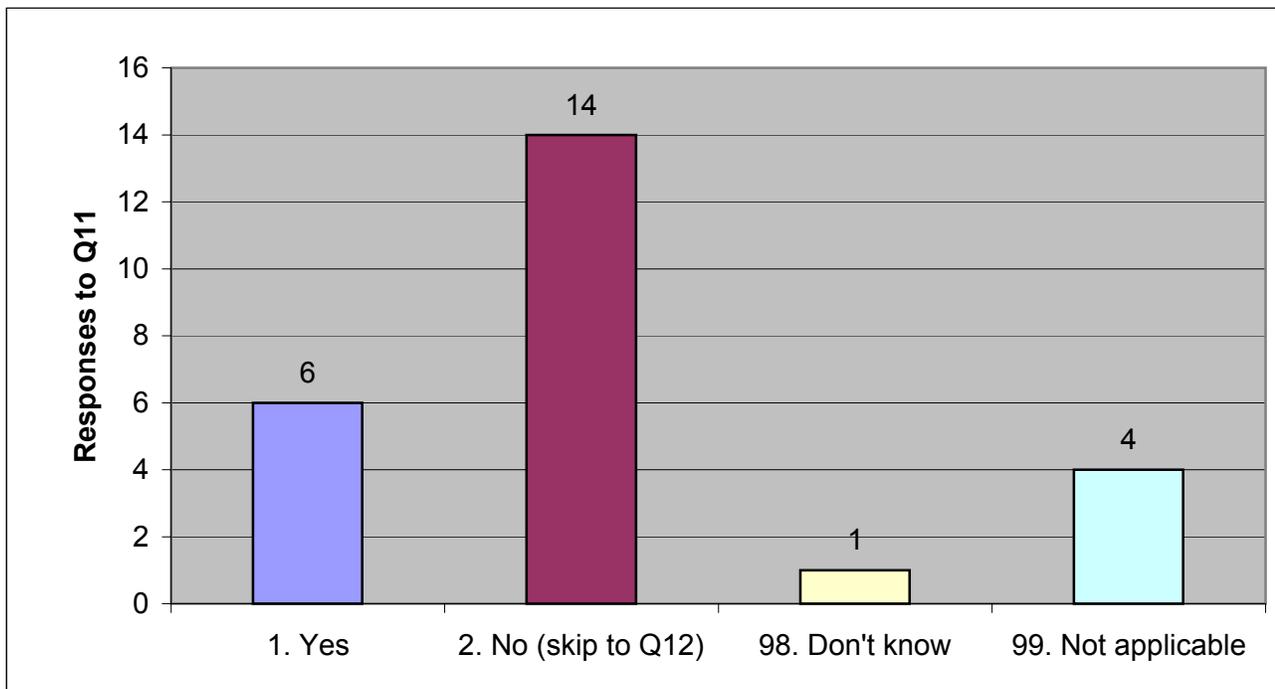


## Listing of Other Responses for Q10

Avista	By passable public purposes charge.
Berkshire Gas	Conservation surcharge
Gaz Metropolitan	Loss of energy due to inefficient equipment 75% to 90% efficient. Can only receive the piece
Intermountain Gas Company	Could not release financial information.
New England Gas Co.	CCF Decimal - Customer is charged a surcharge per CCF of gas.
NW Natural	Balancing accounts - fund to book debits.
Pacific Gas & Electric	Surcharge.
Public Service Electric & Gas	Adjustment charge not bi-passable. Charge - not in base rates.
Puget Sound Energy	At the end of the year, they see what they collected for gas. Then they set it in the rates going forward.
Southern California Gas	SBC but based on last allocation.

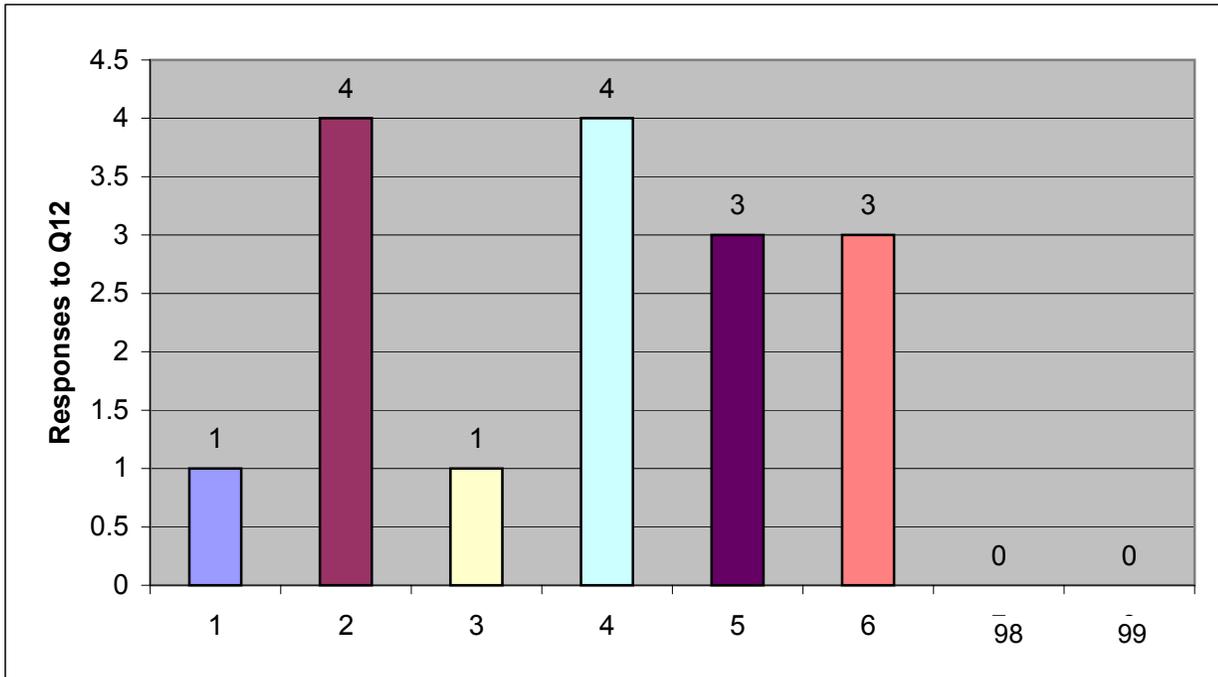
**Q11. Does your company get any shareholder incentives for conducting Energy Efficiency Programs?**  
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	6	24.00%
2. No (skip to Q12)	14	56.00%
98. Don't know	1	4.00%
99. Not applicable	4	16.00%
<b>TOTAL:</b>	<b>25</b>	<b>100.00%</b>



**Q12. If yes, what is the incentive mechanism?**  
 (check all that apply)

	<b>Number of Respondents</b>
1. No shareholder incentives	1
2. Program specific metrics	4
3. Percentage of net benefits from programs	1
4. Incentive based on actual therm savings	4
5. Benefit/Cost metrics	3
6. Other	3
98. Don't know	0
99. Not applicable	0



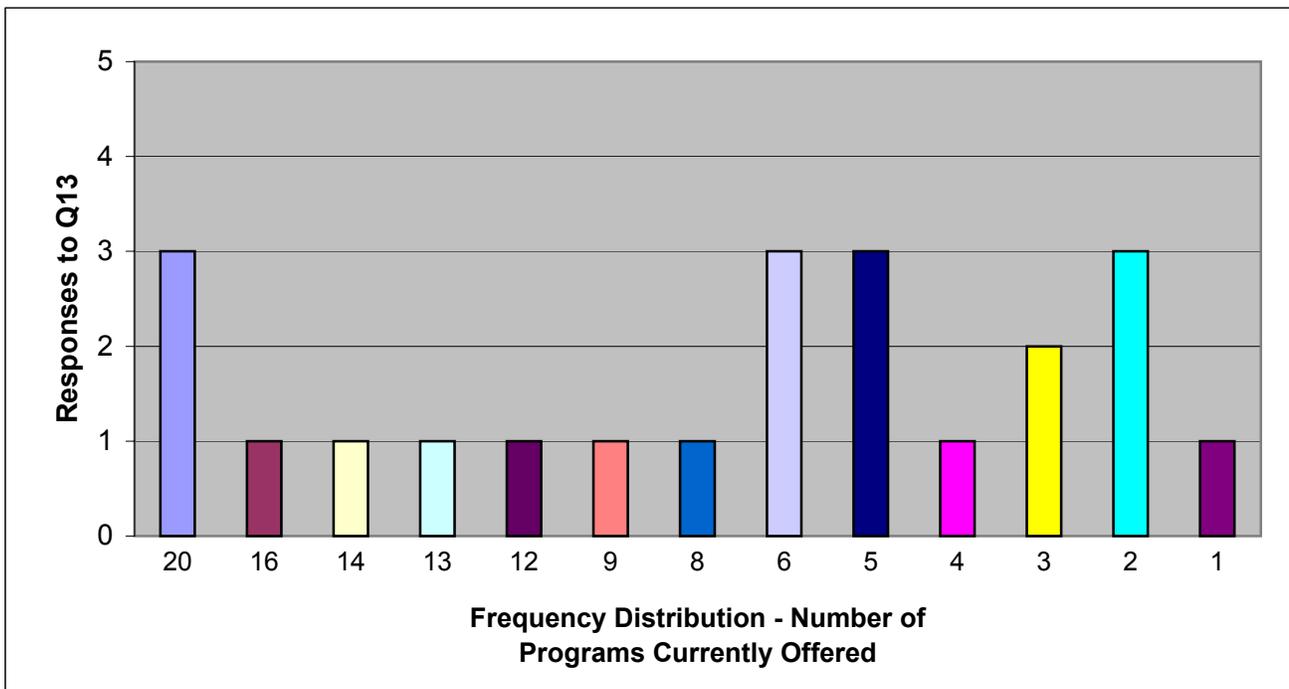
## Listing of Other Responses for Question 12

Berkshire Gas	T-Bill
Enbridge - Ontario	Shared savings based on TRC, difference between budgeted and actual
New England Gas Co.	Lost Base Revenue Adjustment (LBR)

**Q13. How many DSM Programs does your organization currently offer?**

Number of Programs	Number of Respondents	Percentage of Total
20	3	13.64%
16	1	4.55%
14	1	4.55%
13	1	4.55%
12	1	4.55%
9	1	4.55%
8	1	4.55%
6	3	13.64%
5	3	13.64%
4	1	4.55%
3	2	9.09%
2	3	13.64%
1	1	4.55%
<b>TOTAL:</b>	<b>22</b>	<b>100.00%</b>

**Average Number of Programs Offered: 8**



**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

<b>Residential Sector</b>	<b># of Respondents that offer this Measure</b>
High efficiency space heating furnaces	16
Residential Weatherization and Insulation (Low-Income)	15
Energy Savings Tips (no rebates)	14
High efficiency space heating hot water boilers	14
Programmable thermostats	14
High efficiency gas water heaters	13
Audits - Fuel Blind - 100% funded	10
Energy Star Homes	10
High efficiency space heating steam boilers	8
High efficiency water heating efficiency measures [1]	8
Education & Counseling Programs	6
High efficiency combination space/water heating appliances	6
Residential Weatherization and Insulation (Non Low-Income)	6
Furnace tune up	5
Audits - Fuel Blind - Co-funded	4
Audits - Gas - 100% funded	4
Electric to gas water heating (conversion)	4
Energy Star Homes-Bonus	4
Heating/cooling duct insulation/sealing	4
Energy Star windows	3
Heating/cooling duct cleaning	3
High efficiency dishwashers	2
Audits - Gas - Co-funded	1
Gas clothes dryers	1
Gas fireplace [5]	1
High efficiency clothes washers	1
Home Efficiency Program (Exceeds "Energy Star Homes")	1
Home Energy Analyzer	1
Oil to gas heating (conversion)	1

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

<b>Commercial Sector</b>	<b># of Respondents that offer this Measure</b>
High efficiency boilers (space heating)	15
High efficiency furnaces	14
High efficiency gas water heaters (storage)	12
High efficiency steam boilers	10
Infrared heating	9
High efficiency gas water heaters (instantaneous)	8
Programmable thermostats	8
Custom Measures	8
Energy Design Consultation	8
Building Plan Review	8
Education & Training Programs	8
Energy Savings Tips (no rebates)	8
High efficiency space heating (Auxiliary Equipment: controls, burners, economizers)	7
Engineering/Feasibility Studies	6
Energy Audits	6
High efficiency boilers (process)	5
High efficiency gas water heating efficiency measures [1]	5
Heat recovery systems	5
Energy Assessment/Analysis (on-site)	5
High efficiency boilers (other)	4
Boiler tune up	4
Desiccant units	4
Gas engine-driven cooling	4
Gas Fired Steam Absorption Chillers	4
Infrared foodservice equipment	3
Weatherization and insulation	3
Furnace tune up	3
Thermo processes	3
Equipment controls	3
Energy Management Systems (EMS)	3
Recommissioning	3
Power burner foodservice equipment	2
High efficiency clothes washers	2
Cooking equipment	2
Greenhouse heat curtain	2
SPC Programs (no prescriptive list of measures)	2
New Construction (\$ for % savings attainment)	2
Energy Star windows	1
Heating/cooling duct cleaning	1
Electric to gas water heating (conversion)	1
Radiant in-floor heating	1
Research & Development Awards	1
High efficiency dishwashers	0
Energy Star Homes	0
Energy Star Homes-Bonus	0
Gas clothes dryers	0

**QUESTION 14 NOTES:** "X" means the utility offers that specific program

- [1] Measures may include: Tank wrap, sink aerators, low-flow showerheads, and DHW pipe insulation.
- [2] New Jersey utilities participate in the statewide New Jersey Clean Energy Program, which includes Warmadvantage (boiler/furnace rebate program), NJ Energy Star (Energy Star Products promotion program includes windows), NJ Comfort Partners (Low Income) and NJ Energy Star Homes.
- [3] Participates through the statewide Wisconsin Focus on Energy Programs.
- [4] Gaz Metropolitan offers financial incentives for residential mechanical equipment. DHW measures, insulation and air sealing measures are offered through the Community Program (Low Income Program) by a department of provincial government, L'agence de l'efficacité énergétique. For Commercial customers Gas Metropolitan offers specific rebates for condensing type water heaters and boilers.
- [5] NW Natural offers free gas for installing a gas fired fireplace.

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		1	2	3	4
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Massachusetts; New Hampshire; New York	Massachusetts	Massachusetts	Massachusetts
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>KeySpan Energy Delivery</b>	<b>Bay State Gas</b>	<b>Berkshire Gas</b>	<b>NSTAR Gas</b>
1	High efficiency space heating furnaces	X	X	X	X
2	High efficiency space heating hot water boilers	X	X	X	X
3	High efficiency space heating steam boilers	X	X	X	X
4	High efficiency water heating efficiency measures [1]		X		
5	High efficiency gas water heaters	X	X	X	
6	High efficiency combination space/water heating appliances	X		X	
7	Energy Star windows	X		X	
8	Programmable thermostats	X	X	X	X
9	Residential Weatherization and Insulation (Non Low-Income)	X	X	X	
10	Residential Weatherization and Insulation (Low-Income)	X	X	X	X
11	Furnace tune up				
12	Heating/cooling duct cleaning	X			
13	Heating/cooling duct insulation/sealing			X	
14	High efficiency clothes washers				
15	High efficiency dishwashers			X	
16	Energy Star Homes	X		X	X
17	Energy Star Homes-Bonus				
18	Gas clothes dryers			X	
19	Electric to gas water heating (conversion)		X		
20	Oil to gas heating (conversion)				
21	Audits - Gas - 100% funded	X			
22	Audits - Gas - Co-funded				
23	Audits - Fuel Blind - 100% funded		X	X	X
24	Audits - Fuel Blind - Co-funded				
25	Home Energy Analyzer				
26	Home Efficiency Program (Exceeds "Energy Star Homes")				
27	Education & Counseling Programs				
28	Energy Savings Tips (no rebates)	X	X	X	X

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		1	2	3	4
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Massachusetts; New Hampshire; New York	Massachusetts	Massachusetts	Massachusetts
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>KeySpan Energy Delivery</b>	<b>Bay State Gas</b>	<b>Berkshire Gas</b>	<b>NSTAR Gas</b>
29	Gas fireplace [5]				

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		5	6	7	8
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Massachusetts	California	California	New Jersey
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Unitil (Fitchburg Gas &amp; Electric)</b>	<b>Pacific Gas &amp; Electric</b>	<b>San Diego Gas &amp; Electric / Sempra</b>	<b>South Jersey Gas [2]</b>
1	High efficiency space heating furnaces	X	X	X	X
2	High efficiency space heating hot water boilers	X			X
3	High efficiency space heating steam boilers	X		X	
4	High efficiency water heating efficiency measures [1]			X	X
5	High efficiency gas water heaters	X	X		X
6	High efficiency combination space/water heating appliances				
7	Energy Star windows		X		
8	Programmable thermostats	X		X	X
9	Residential Weatherization and Insulation (Non Low-Income)				
10	Residential Weatherization and Insulation (Low-Income)	X	X		X
11	Furnace tune up				X
12	Heating/cooling duct cleaning				X
13	Heating/cooling duct insulation/sealing				X
14	High efficiency clothes washers		X		
15	High efficiency dishwashers		X		
16	Energy Star Homes	X	X		X
17	Energy Star Homes-Bonus	X			X
18	Gas clothes dryers				
19	Electric to gas water heating (conversion)				
20	Oil to gas heating (conversion)				
21	Audits - Gas - 100% funded				
22	Audits - Gas - Co-funded				
23	Audits - Fuel Blind - 100% funded	X			X
24	Audits - Fuel Blind - Co-funded				
25	Home Energy Analyzer				
26	Home Efficiency Program (Exceeds "Energy Star Homes")				
27	Education & Counseling Programs				X
28	Energy Savings Tips (no rebates)	X		X	

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		5	6	7	8
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Massachusetts	California	California	New Jersey
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Unitil (Fitchburg Gas &amp; Electric)</b>	<b>Pacific Gas &amp; Electric</b>	<b>San Diego Gas &amp; Electric / Sempra</b>	<b>South Jersey Gas [2]</b>
29	Gas fireplace [5]				

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		9	10	11	12
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Wisconsin	Vermont	Minnesota	Wisconsin
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Madison Gas &amp; Electric</b>	<b>Vermont Gas Systems, Inc.</b>	<b>Xcel Energy-Minnesota</b>	<b>Xcel Energy-Wisconsin [3]</b>
1	High efficiency space heating furnaces		X		X
2	High efficiency space heating hot water boilers		X		X
3	High efficiency space heating steam boilers		X		
4	High efficiency water heating efficiency measures [1]				X
5	High efficiency gas water heaters		X	X (.62+ EF)	X
6	High efficiency combination space/water heating appliances		X	X	
7	Energy Star windows				
8	Programmable thermostats		X		
9	Residential Weatherization and Insulation (Non Low-Income)		X	X	
10	Residential Weatherization and Insulation (Low-Income)		X		X
11	Furnace tune up		X		X
12	Heating/cooling duct cleaning				
13	Heating/cooling duct insulation/sealing				
14	High efficiency clothes washers				
15	High efficiency dishwashers				
16	Energy Star Homes		X		X
17	Energy Star Homes-Bonus		X		
18	Gas clothes dryers				
19	Electric to gas water heating (conversion)		X		X
20	Oil to gas heating (conversion)				
21	Audits - Gas - 100% funded		X		
22	Audits - Gas - Co-funded				
23	Audits - Fuel Blind - 100% funded				X
24	Audits - Fuel Blind - Co-funded			X (65%)	X
25	Home Energy Analyzer			X	
26	Home Efficiency Program (Exceeds "Energy Star Homes")			X	
27	Education & Counseling Programs				X
28	Energy Savings Tips (no rebates)	X	X		X

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		9	10	11	12
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Wisconsin	Vermont	Minnesota	Wisconsin
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Madison Gas &amp; Electric</b>	<b>Vermont Gas Systems, Inc.</b>	<b>Xcel Energy-Minnesota</b>	<b>Xcel Energy-Wisconsin [3]</b>
29	Gas fireplace [5]				

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		13	14	15	16	17
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Oregon, Washington	MO, KS, CO, NE, IA, MI, MN	IA, NE, SD, IL	Wisconsin	Nevada
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>NW Natural</b>	<b>Aquila</b>	<b>MidAmerican Energy</b>	<b>WE Energies</b>	<b>Sierra Pacific Power</b>
1	High efficiency space heating furnaces	X	X	X	X	
2	High efficiency space heating hot water boilers	X	X	X	X	
3	High efficiency space heating steam boilers		X			
4	High efficiency water heating efficiency measures [1]			X	X	
5	High efficiency gas water heaters		X	X	X	
6	High efficiency combination space/water heating appliances	X				
7	Energy Star windows					
8	Programmable thermostats	X	X	X		
9	Residential Weatherization and Insulation (Non Low-Income)					
10	Residential Weatherization and Insulation (Low-Income)		X		X	X
11	Furnace tune up				X	
12	Heating/cooling duct cleaning					
13	Heating/cooling duct insulation/sealing			X		
14	High efficiency clothes washers					
15	High efficiency dishwashers					
16	Energy Star Homes				X	
17	Energy Star Homes-Bonus					
18	Gas clothes dryers					
19	Electric to gas water heating (conversion)				X	
20	Oil to gas heating (conversion)	X				
21	Audits - Gas - 100% funded					X
22	Audits - Gas - Co-funded					
23	Audits - Fuel Blind - 100% funded			X	X	
24	Audits - Fuel Blind - Co-funded		X		X	
25	Home Energy Analyzer					
26	Home Efficiency Program (Exceeds "Energy Star Homes")					
27	Education & Counseling Programs				X	
28	Energy Savings Tips (no rebates)		X		X	X

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		13	14	15	16	17
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Oregon, Washington	MO, KS, CO, NE, IA, MI, MN	IA, NE, SD, IL	Wisconsin	Nevada
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>NW Natural</b>	<b>Aquila</b>	<b>MidAmerican Energy</b>	<b>WE Energies</b>	<b>Sierra Pacific Power</b>
29	Gas fireplace [5]	X				

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		18	19	20	21
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Texas	Massachusetts, Rhode Island	New Jersey	Quebec
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Oncor/TXU Gas</b>	<b>New England Gas Co.</b>	<b>Public Service Electric &amp; Gas [2]</b>	<b>Gaz Metropolitan [4]</b>
1	High efficiency space heating furnaces			X	X
2	High efficiency space heating hot water boilers			X	X
3	High efficiency space heating steam boilers				
4	High efficiency water heating efficiency measures [1]		X	X	
5	High efficiency gas water heaters			X	X
6	High efficiency combination space/water heating appliances				X
7	Energy Star windows				
8	Programmable thermostats		X	X	X
9	Residential Weatherization and Insulation (Non Low-Income)		X		
10	Residential Weatherization and Insulation (Low-Income)		X	X	X
11	Furnace tune up			X	
12	Heating/cooling duct cleaning			X	
13	Heating/cooling duct insulation/sealing			X	
14	High efficiency clothes washers				
15	High efficiency dishwashers				
16	Energy Star Homes			X	
17	Energy Star Homes-Bonus			X	
18	Gas clothes dryers				
19	Electric to gas water heating (conversion)				
20	Oil to gas heating (conversion)				
21	Audits - Gas - 100% funded		X		
22	Audits - Gas - Co-funded		X		
23	Audits - Fuel Blind - 100% funded			X	X
24	Audits - Fuel Blind - Co-funded				X
25	Home Energy Analyzer				
26	Home Efficiency Program (Exceeds "Energy Star Homes")				
27	Education & Counseling Programs		X	X	X
28	Energy Savings Tips (no rebates)	X	X		

**Q14: Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		18	19	20	21
	<b>RESIDENTIAL SECTOR PROGRAMS</b>	Texas	Massachusetts, Rhode Island	New Jersey	Quebec
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Oncor/TXU Gas</b>	<b>New England Gas Co.</b>	<b>Public Service Electric &amp; Gas [2]</b>	<b>Gaz Metropolitan [4]</b>
29	Gas fireplace [5]				

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		1	2	3	4
	<b>COMMERCIAL SECTOR PROGRAM</b>	Massachusetts; New Hampshire; New York	Massachusetts	Massachusetts	Massachusetts
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>KeySpan Energy Delivery</b>	<b>Bay State Gas</b>	<b>Berkshire Gas</b>	<b>NSTAR Gas</b>
30	High efficiency boilers (space heating)	X	X	X	X
31	High efficiency boilers (process)	X			
32	High efficiency boilers (other)	X			
33	High efficiency furnaces	X	X	X	X
34	High efficiency steam boilers	X		X	X
35	High efficiency space heating (Auxiliary Equipment: controls, burners)	X			
36	High efficiency gas water heaters (storage)	X		X	X
37	High efficiency gas water heaters (instantaneous)	X			
38	High efficiency gas water heating efficiency measures [1]		X		
39	Power burner foodservice equipment				
40	Infrared foodservice equipment	X			
41	Energy Star windows	X			
42	Programmable thermostats	X	X		
43	Weatherization and insulation	X	X		
44	Boiler tune up		X		
45	Furnace tune up		X		
46	Heating/cooling duct cleaning		X		
47	High efficiency clothes washers				
48	High efficiency dishwashers				
49	Energy Star Homes				
50	Energy Star Homes-Bonus				
51	Gas clothes dryers				
52	Electric to gas water heating (conversion)		X		
53	Infrared heating	X	X	X	X
54	Heat recovery systems	X	X		
55	Desiccant units	X			
56	Gas engine-driven cooling	X			
57	Thermo processes	X	X		

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		1	2	3	4
	<b>COMMERCIAL SECTOR PROGRAM</b>	Massachusetts; New Hampshire; New York	Massachusetts	Massachusetts	Massachusetts
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>KeySpan Energy Delivery</b>	<b>Bay State Gas</b>	<b>Berkshire Gas</b>	<b>NSTAR Gas</b>
58	Cooking equipment	X			
59	Equipment controls	X	X		
60	Radiant in-floor heating				
61	Engineering/Feasibility Studies	X	X	X	
62	Custom Measures	X	X	X	
63	Energy Assessment/Analysis (on-site)	X			
64	Energy Design Consultation	X			
65	Building Plan Review	X			
66	Energy Audits	X	X		
67	Energy Management Systems (EMS)	X			
68	Recommissioning				
69	Gas Fired Steam Absorption Chillers	X	X		
70	Greenhouse heat curtain				
71	SPC Programs (no prescriptive list of measures)				
72	New Construction (\$ for % savings attainment)				
73	Education & Training Programs	X			
74	Energy Savings Tips (no rebates)	X			
75	Research & Development Awards				

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		5	6	7	8
	<b>COMMERCIAL SECTOR PROGRAM</b>	Massachusetts	California	California	New Jersey
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Unitil (Fitchburg Gas &amp; Electric)</b>	<b>Pacific Gas &amp; Electric</b>	<b>San Diego Gas &amp; Electric / Sempra</b>	<b>South Jersey Gas [2]</b>
30	High efficiency boilers (space heating)	X	X	X	X
31	High efficiency boilers (process)		X	X	
32	High efficiency boilers (other)		X	X	
33	High efficiency furnaces	X			X
34	High efficiency steam boilers	X			
35	High efficiency space heating (Auxiliary Equipment: controls, burners)			X	
36	High efficiency gas water heaters (storage)	X	X	X	X
37	High efficiency gas water heaters (instantaneous)		X	X	X
38	High efficiency gas water heating efficiency measures [1]		X	X	
39	Power burner foodservice equipment		X	X	
40	Infrared foodservice equipment		X	X	
41	Energy Star windows				
42	Programmable thermostats		X	X	
43	Weatherization and insulation				
44	Boiler tune up				
45	Furnace tune up				
46	Heating/cooling duct cleaning				
47	High efficiency clothes washers		X	X	
48	High efficiency dishwashers				
49	Energy Star Homes				
50	Energy Star Homes-Bonus				
51	Gas clothes dryers				
52	Electric to gas water heating (conversion)				
53	Infrared heating				
54	Heat recovery systems				
55	Desiccant units				X
56	Gas engine-driven cooling				X
57	Thermo processes				

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		5	6	7	8
	<b>COMMERCIAL SECTOR PROGRAM</b>	Massachusetts	California	California	New Jersey
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Unitil (Fitchburg Gas &amp; Electric)</b>	<b>Pacific Gas &amp; Electric</b>	<b>San Diego Gas &amp; Electric / Sempra</b>	<b>South Jersey Gas [2]</b>
58	Cooking equipment				
59	Equipment controls				
60	Radiant in-floor heating				
61	Engineering/Feasibility Studies				
62	Custom Measures		X	X	
63	Energy Assessment/Analysis (on-site)				
64	Energy Design Consultation		X	X	X
65	Building Plan Review		X	X	X
66	Energy Audits				
67	Energy Management Systems (EMS)				
68	Recommissioning				
69	Gas Fired Steam Absorption Chillers				X
70	Greenhouse heat curtain		X	X	
71	SPC Programs (no prescriptive list of measures)		X	X	
72	New Construction (\$ for % savings attainment)				
73	Education & Training Programs		X	X	
74	Energy Savings Tips (no rebates)				
75	Research & Development Awards				

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		9	10	11	12
	<b>COMMERCIAL SECTOR PROGRAM</b>	Wisconsin	Vermont	Minnesota	Wisconsin
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Madison Gas &amp; Electric</b>	<b>Vermont Gas Systems, Inc.</b>	<b>Xcel Energy-Minnesota</b>	<b>Xcel Energy-Wisconsin [3]</b>
30	High efficiency boilers (space heating)		X	X	X
31	High efficiency boilers (process)				
32	High efficiency boilers (other)				
33	High efficiency furnaces		X	X	X
34	High efficiency steam boilers		X		X
35	High efficiency space heating (Auxiliary Equipment: controls, burners)			X	X
36	High efficiency gas water heaters (storage)		X	X	
37	High efficiency gas water heaters (instantaneous)		X		
38	High efficiency gas water heating efficiency measures [1]			X	
39	Power burner foodservice equipment				
40	Infrared foodservice equipment				
41	Energy Star windows				
42	Programmable thermostats			X	X
43	Weatherization and insulation			X	
44	Boiler tune up			X	X
45	Furnace tune up				X
46	Heating/cooling duct cleaning				
47	High efficiency clothes washers				
48	High efficiency dishwashers				
49	Energy Star Homes				
50	Energy Star Homes-Bonus				
51	Gas clothes dryers				
52	Electric to gas water heating (conversion)				
53	Infrared heating			X	X
54	Heat recovery systems		X	X	
55	Desiccant units			X	
56	Gas engine-driven cooling			X	
57	Thermo processes			X	

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		9	10	11	12
	<b>COMMERCIAL SECTOR PROGRAM</b>	Wisconsin	Vermont	Minnesota	Wisconsin
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Madison Gas &amp; Electric</b>	<b>Vermont Gas Systems, Inc.</b>	<b>Xcel Energy-Minnesota</b>	<b>Xcel Energy-Wisconsin [3]</b>
58	Cooking equipment			X	
59	Equipment controls			X	
60	Radiant in-floor heating			X	
61	Engineering/Feasibility Studies		X	X	
62	Custom Measures				X
63	Energy Assessment/Analysis (on-site)		X	X	
64	Energy Design Consultation		X	X	
65	Building Plan Review		X	X	
66	Energy Audits		X	X	
67	Energy Management Systems (EMS)			X	
68	Recommissioning			X	
69	Gas Fired Steam Absorption Chillers				
70	Greenhouse heat curtain				
71	SPC Programs (no prescriptive list of measures)				
72	New Construction (\$ for % savings attainment)				
73	Education & Training Programs		X		X
74	Energy Savings Tips (no rebates)	X	X		X
75	Research & Development Awards				

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		13	14	15	16	17
	<b>COMMERCIAL SECTOR PROGRAM</b>			IA, NE, SD, IL	Wisconsin	Nevada
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>NW Natural</b>	<b>Aquila</b>	<b>MidAmerican Energy</b>	<b>WE Energies</b>	<b>Sierra Pacific Power</b>
30	High efficiency boilers (space heating)		X		X	
31	High efficiency boilers (process)		X			
32	High efficiency boilers (other)		X			
33	High efficiency furnaces		X	X	X	
34	High efficiency steam boilers		X	X	X	
35	High efficiency space heating (Auxiliary Equipment: controls, burners)		X	X	X	
36	High efficiency gas water heaters (storage)			X		
37	High efficiency gas water heaters (instantaneous)			X		
38	High efficiency gas water heating efficiency measures [1]			X		
39	Power burner foodservice equipment					
40	Infrared foodservice equipment					
41	Energy Star windows					
42	Programmable thermostats			X	X	
43	Weatherization and insulation					
44	Boiler tune up				X	
45	Furnace tune up				X	
46	Heating/cooling duct cleaning					
47	High efficiency clothes washers					
48	High efficiency dishwashers					
49	Energy Star Homes					
50	Energy Star Homes-Bonus					
51	Gas clothes dryers					
52	Electric to gas water heating (conversion)					
53	Infrared heating		X	X	X	
54	Heat recovery systems			X		
55	Desiccant units					
56	Gas engine-driven cooling					
57	Thermo processes					

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		13	14	15	16	17
	<b>COMMERCIAL SECTOR PROGRAM</b>			IA, NE, SD, IL	Wisconsin	Nevada
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>NW Natural</b>	<b>Aquila</b>	<b>MidAmerican Energy</b>	<b>WE Energies</b>	<b>Sierra Pacific Power</b>
58	Cooking equipment					
59	Equipment controls					
60	Radiant in-floor heating					
61	Engineering/Feasibility Studies					
62	Custom Measures				X	
63	Energy Assessment/Analysis (on-site)			X		
64	Energy Design Consultation					
65	Building Plan Review					
66	Energy Audits	X				
67	Energy Management Systems (EMS)	X				
68	Recommissioning	X	X			
69	Gas Fired Steam Absorption Chillers					
70	Greenhouse heat curtain					
71	SPC Programs (no prescriptive list of measures)					
72	New Construction (\$ for % savings attainment)			X		
73	Education & Training Programs	X			X	X
74	Energy Savings Tips (no rebates)	X			X	X
75	Research & Development Awards	X				

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		18	19	20	21
	<b>COMMERCIAL SECTOR PROGRAM</b>	Texas		New Jersey	Quebec
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Oncor/TXU Gas</b>	<b>New England Gas Co.</b>	<b>Public Service Electric &amp; Gas [2]</b>	<b>Gaz Metropolitan [4]</b>
30	High efficiency boilers (space heating)			X	X
31	High efficiency boilers (process)				X
32	High efficiency boilers (other)				
33	High efficiency furnaces			X	X
34	High efficiency steam boilers				X
35	High efficiency space heating (Auxiliary Equipment: controls, burners)				
36	High efficiency gas water heaters (storage)			X	X
37	High efficiency gas water heaters (instantaneous)			X	X
38	High efficiency gas water heating efficiency measures [1]				
39	Power burner foodservice equipment				
40	Infrared foodservice equipment				
41	Energy Star windows				
42	Programmable thermostats				
43	Weatherization and insulation				
44	Boiler tune up				
45	Furnace tune up				
46	Heating/cooling duct cleaning				
47	High efficiency clothes washers				
48	High efficiency dishwashers				
49	Energy Star Homes				
50	Energy Star Homes-Bonus				
51	Gas clothes dryers				
52	Electric to gas water heating (conversion)				
53	Infrared heating				
54	Heat recovery systems				
55	Desiccant units			X	
56	Gas engine-driven cooling			X	
57	Thermo processes				

**Q14. Summary of Energy Efficiency Programs Offered by Respondents to the Survey of North American Gas Utilities - 12-17-2003**

		18	19	20	21
	<b>COMMERCIAL SECTOR PROGRAM</b>	Texas		New Jersey	Quebec
<b>Measure #</b>	<b>Name of DSM Program or Gas DSM Measure</b>	<b>Oncor/TXU Gas</b>	<b>New England Gas Co.</b>	<b>Public Service Electric &amp; Gas [2]</b>	<b>Gaz Metropolitan [4]</b>
58	Cooking equipment				
59	Equipment controls				
60	Radiant in-floor heating				
61	Engineering/Feasibility Studies				X
62	Custom Measures				X
63	Energy Assessment/Analysis (on-site)				X
64	Energy Design Consultation			X	X
65	Building Plan Review			X	X
66	Energy Audits				X
67	Energy Management Systems (EMS)				
68	Recommissioning				
69	Gas Fired Steam Absorption Chillers			X	
70	Greenhouse heat curtain				
71	SPC Programs (no prescriptive list of measures)				
72	New Construction (\$ for % savings attainment)				X
73	Education & Training Programs				
74	Energy Savings Tips (no rebates)		X		
75	Research & Development Awards				

## Q15. Do you offer energy efficiency education and training programs?

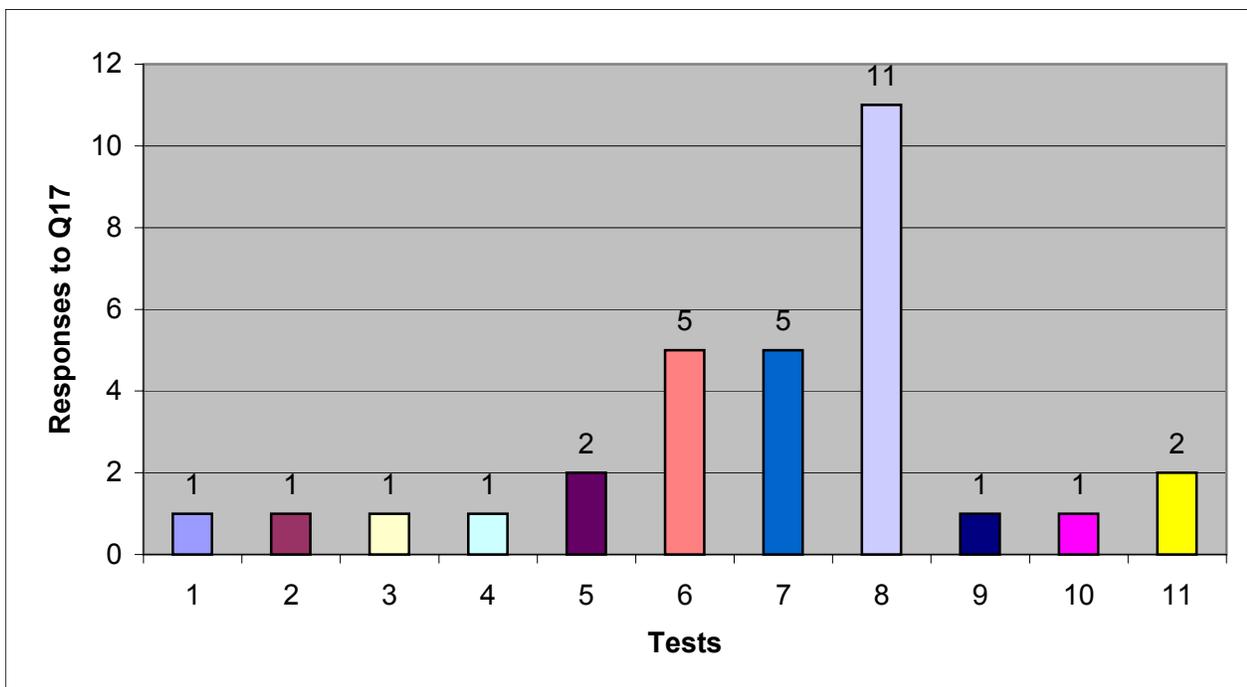
Organization	Response
Avista	CAP - Community Action Programs. Limited income - they provide CAP agencies and teach classes on Energy Efficiency. Commercial: 4 Energy Engineers educate customers on a case by case basis.
Bay State Gas	Classroom - Sponsor C&I customers BOC classes. Contractor training of high efficiency equipment. Seminars on new technologies. Onsite audit provided training residential RCS program.
Berkshire Gas	Yes. Curriculum for middle and high school went out
Enbridge - Ontario	Building audits in C/I sector.
Gaz Metropolitan	Awareness Program-Communications to customers about programs
Intermountain Gas Company	TU Advertising - 50% air time in fall is a conservation spot pointing them to the website.
KeySpan Energy Delivery	Builder Operator Certification Training for HVAC Contractors Training for Home Builders
Madison Gas & Electric	Residential participated in ENACT - neighborhood based initiative. Commercial training was sponsored through the Energy Center of Wisconsin.
MidAmerican Energy	Will be doing more.
New England Gas Co.	Group training of contractors 35-40 meetings over the past 5-6 years - 3500-4000 contractors.
Northwestern Energy Utility	Audit program provides this face to face and in customer report. Low income and a lot done face to face.
NW Natural	They did part of an audit.
Oncor/TXU Gas	No
Pacific Gas & Electric	Codes and standards training, code
Public Service Electric & Gas	HVAC Contractors/training builders on current code changes Energy Star Sales training - contractors Technical Training NAT - Training for contractors
Puget Sound Energy	Available to middle schools and high schools. Classroom activities, increase students knowledge of energy and other resource use.
Questar Gas	Yes. Information is provided, upon request, to residential, commercial, and industrial customers on energy efficiency measures
South Jersey Gas	B.O.C. course - now part of C/I programs
Southern California Gas	Energy Resource Center conducts money training programs
Southwest Gas	In California EE education targeted at low-income. Training - EAT and LIEC field personel and sub-contractors
Unitil (Fitchburg Gas & Electric)	Education provided at the same time as residential weatherization program. Large customer training through Gas Networks program.
Vermont Gas Systems, Inc.	Offered homeowner education classes but participation was low, discontinued them. Provide support to Efficiency Vermont's "Better Business by Design" training. They periodically do contractor training.
Xcel Energy-Minnesota	Product manager market program

**Q16. Which of your programs are the most successful and most cost effective?  
And why?**

<b>Organization</b>	<b>Response</b>
Avista	Commercial Programs
Bay State Gas	Collaborative type of programs, heating equipment the best. Customer Programs.
Berkshire Gas	Weatherization. Most potential for savings, people understand the concept better. Air Sealing - but people don't understand Thermostats - energy auditors install them
Enbridge - Ontario	Residential programs provide greater net benefits.
Gaz Metropolitan	Cost Effective - Implementation of high efficient water heaters, boilers, and furnaces. Everything except these programs are not cost effective.
Intermountain Gas Company	Eastern part of the state conversion market high tech.
KeySpan Energy Delivery	See benefit/cost report developed by GDS on 4-30-2002
Madison Gas & Electric	Environmental Action Teams (EnAct) in neighborhoods, community organizations, and work places, works well because of its sponsors Major sponsors are the City of Madison, Dane County Sewer District, and the Energy Center of Wisconsin.
MidAmerican Energy	Home Check. New Homes >2000 homes/year 7-8000 30% participation.
New England Gas Co.	Heating Program
Northwestern Energy Utility	Residential and low income are both successful.
NW Natural	Showerhead program in '94 and '95 - mail order, self-install
Public Service Electric & Gas	Residential new construction energy star home program.
Puget Sound Energy	Cost Efficiency - Resource Conservation Manager (RCM) Commercial Programs Residential less cost effective, but get good participation.
Questar Gas	The Utah Public Service Commission has directed the Demand-Side Resource Task Force to study the optimal level of funding for the Low Income Weatherization Program. Benefits from the Energy Star Program have not been quantified.
South Jersey Gas	Not sure - but thinks Independent evaluation requested, but the Board of Public Utilities evaluation expenses are too high. LI impacts societal
Southern California Gas	Single and Multi Family-customer satisfaction, participation Residential-NC-Customer satisfaction, participation Small/Med. Businesses - most cost effective
Unitil (Fitchburg Gas & Electric)	Programs have been around since 2000 with little success. Gas Networks
Vermont Gas Systems, Inc.	Commercial programs - because of the nature of the opportunities. They are much larger opportunities. Commercial new construction is most cost effective.

## Q17. Which Benefit/Cost Test is required by regulators? (Check one)

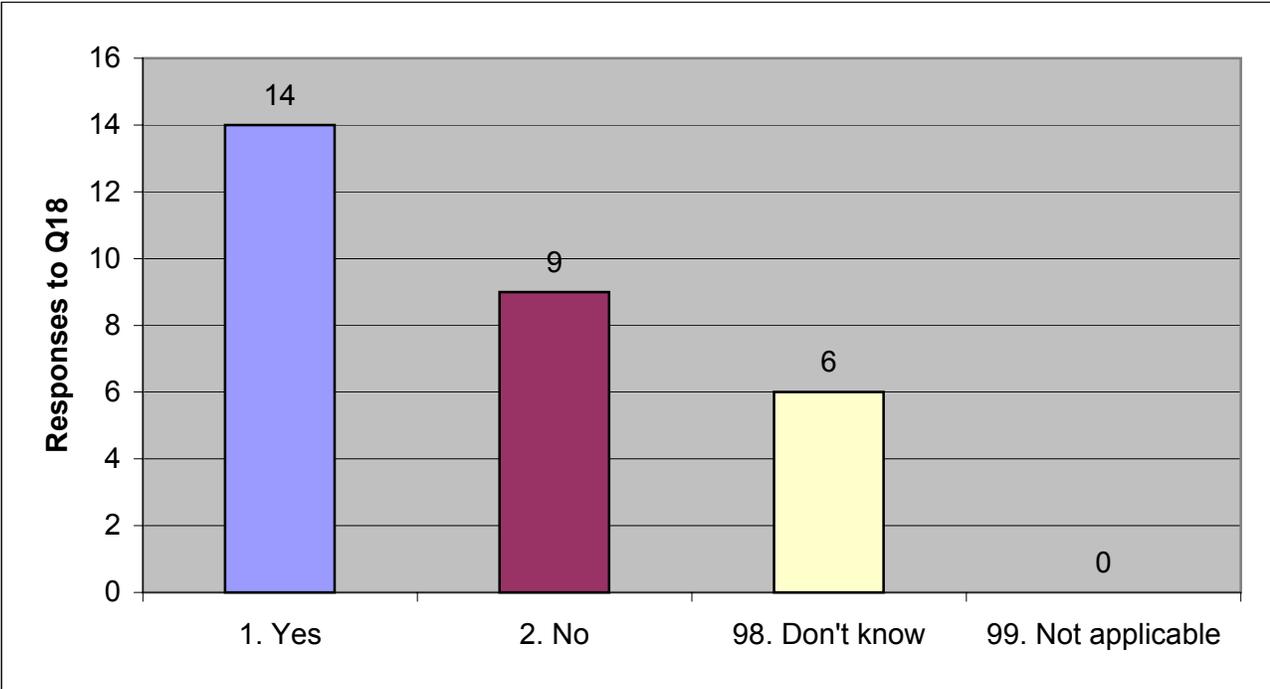
Program	Number of Respondents
1. California Standard Practice Test	1
2. Customer Test	1
3. Participant Test	1
4. Rates Based Budget	1
5. Rate Payer Impact	2
6. Societal Test	5
7. Utilities Cost Test	5
8. Total Resource Cost Test	11
9. Total Resource Lost	1
10. Universal Systems Benefits	1
11. None	2
Total Respondents	31



**Q18. Do you know of any available Gas DSM technical or achievable potential studies that have been conducted for your service area or state?**

(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	14	48.28%
2. No	9	31.03%
98. Don't know	6	20.69%
99. Not applicable	0	0.00%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>



**Q19. Do you know of any available Gas DSM technical or achievable potential studies that have been conducted for your service area or State? If yes, where can I get copies?**

Organization	Author	Title of Document	Date	State
New England Gas		Budget, Participation & Cost Effectiveness for Preapproval Period, Year 1, November 1, 2002 - October 31, 2003 (Excel Spreadsheet)	May-02	
Avista Utilities		2000 Natural Gas Integrated Resource Plan	2000	
Puget Sound Energy		Puget Sound Energys Least Cost Plan 2003. Natural Gas Tariff Filing	Aug-03 Jan-03	
Mid American	Global Energy Partners & Quantec	Assessment of Energy and Capacity Savings Potential in Iowa, Volumes 1 and 2	Jul-02	IA
Xcel Energy	White, Shawn; Xcel Energy	Commercial/Industrial Building and Equipment Retrofit	Nov-02	MN
Xcel Energy	Xcel Energy	2003-2004 Biennial Plan; MN NG and Electric Conservation Improvement Program	Jun-02	MN
WE-Energies	Energy Center of WI	WI Statewide Tech & Econ Potential Study	1994	WI
WE-Energies	Opinion Dynamics for the Energy Center of WI	Appliance Sales Tracking 1999 Residential Survey	Mar-00	WI
WE-Energies	Energy Center of WI	Recent Trends in Wisconsin Residential Gas Use; A Preliminary Investigation	Aug-99	WI
WE-Energies	WE-Energies	Gas Operations Sales and Revenues	Nov-03	WI
NW Natural	NW Natural	2000 IRP Exec Summary/Action Plan	Jul-02	OR & WA
NW Natural	NW Natural	1995 IRP Exec Summary/Action Plan	Apr-96	OR & WA
NW Natural	NW Natural	NW Natural Long Term Incremental Costs	Nov-02	OR & WA
South Jersey Gas	NJ Board of Public Utilities	NJ Clean Energy Program 2002 Annual Report	2003	NJ
Berkshire Gas	Berkshire Gas	C/I Energy Management Program Descriptions	Jul-03	MA
Berkshire Gas	Berkshire Gas	Energy Efficiency Services Program (Residential) Descriptions	Jul-03	MA
NW Natural	Bicker, Stephen (NW Natural); Wisniewski, Ed (CEE)		2002	OR & WA
Xcel Energy	MN Dept of Commerce	CIP Products and Services - Detailed Assumptions: Energy Efficient Equipment Portfolio - Commercial & Industrial	2003	MN
Enbridge Gas Distribution	Summit Blue Consulting, LLC	Assessment of DSM Evaluation Processes for Business Markets Projects and Free Ridership Evaluation : Custom Attribution Evaluation	Jun-03	ONT
Enbridge Gas Distribution	Enbridge Gas Distribution	DSM Evaluation Appendix A: Case Study: Keeping Heat in Keeps Costs Down at Unilever	Dec-02	ONT
Enbridge Gas Distribution	Enbridge Gas Distribution	DSM Evaluation Appendix B: Program Assumptions	Dec-02	ONT
Enbridge Gas Distribution	Enbridge Gas Distribution	DSM Evaluation Appendix C: 2002 Cost Effectiveness	Dec-02	ONT

South Jersey Gas	RLW	Commercial Energy Efficient Lighting and HVAC Baseline Study Task III Report: Equipment Replacement and Remodeling Interviews	Feb-02	NJ
South Jersey Gas	RLW	The New Jersey ENERGY STAR® Products Working Group Appliance and Windows Baseline Studies Final Report	Mar-01	NJ
South Jersey Gas	RLW	New Jersey Electric & Gas Utilities: Commercial Energy Efficient Construction Baseline Study Task 1 Final Report: On-Site Survey of New Construction & Renovation Projects	Jan-00	NJ
South Jersey Gas	Roper Starch Worldwide and RLW	New Jersey Electric & Gas Utilities: Commercial Energy Efficient Lighting and HVAC Baseline Study Task II Report Decision-Maker Interviews	Feb-00	NJ
South Jersey Gas	Xenergy	New Jersey Residential HVAC Baseline Study	Nov-01	NJ
South Jersey Gas	RLW	The New Jersey ENERGY STAR® Products Working Group Appliance and Windows Baseline Studies Final Appendix	Mar-01	NJ
South Jersey Gas	Xenergy	New Jersey Comprehensive Resources Analysis Market Assessment	Aug-99	NJ
So Cal Gas/SDGE/Sempra	So Cal Gas/Sempra	So Cal Gas Energy Efficiency Programs Annual Summary and Technical Appendix: 2002 Results contains avoided costs	May-03	CA
So Cal Gas/SDGE/Sempra	So Cal Gas/Sempra	So Cal Gas Demand Response Programs Annual Summary: 2002 Results	May-03	CA
So Cal Gas/SDGE/Sempra	So Cal Gas/Sempra	So Cal Gas DSM Programs Annual Summary: Results 1994 - 1997	May-03	CA
So Cal Gas/SDGE/Sempra	So Cal Gas/Sempra	So Cal Gas Low Income Energy Efficiency Programs Annual Summary and Technical Appendix: 2002 Results	May-03	CA
So Cal Gas/SDGE/Sempra	SDGE/Sempra	SDGE Energy Efficiency Programs Annual Summary and Technical Appendix: 2002 Results contains avoided costs	May-03	CA
So Cal Gas/SDGE/Sempra	SDGE/Sempra	SDGE DSM Programs Annual Summary: Results 1994 - 1997	May-03	CA
So Cal Gas/SDGE/Sempra	SDGE/Sempra	SDGE Low Income Energy Efficiency Programs Annual Summary and Technical Appendix: 2002 Results	May-03	CA

## Q19.2 - Gas Technical Potential Studies

### Database of Technical Potential Studies Recently Done in New England, New York, California, Southwest US

	STATE	Name of Technical Potential Study	Date Study Completed (Date on the final report)	Sponsoring Organization	Final Study Report Available to GDS in electronic or hard copy	Study Completed by Who (What Consultant)
1	WA	Assessment of Long Term Electricity and Natural Gas Conservation Potential in Puget Sound Energy Service Area 2003-2024	August-03	Puget Sound Energy	Electronic	KEMA-Xenergy/Quantec
2	IA	Assessment of Energy and Capacity Savings Potential in Iowa, Volumes 1 and 2	July-02	Alliant Energy Aquila MidAmerican United Cities Gas IA Utility Association	Electronic	Global Energy Partners & Quantec
3	National	Natural Gas Price and Availability Effects of Aggressive Energy Efficiency and Renewable Energy Policies: A Methodology White Paper				
4	WI	WI Tech Potential	1994	Public Service Commission of Wisconsin	Electronic	Energy Center of WI

### Q19-3. Residential Sector Studies

Study #	Title of Document	Date of Publication	Number of Pages in Main Body of Report	Author or Consulting Firm	Organization Publishing the Report	Sector (Residential, Commercial, Industrial)	Type (Program Evaluation, Load Forecast, Market Research Study, Appliance Saturation Survey, Energy Efficiency Plan, etc.)	Market Segment or End Use Targeted by the Report	Report or Study Available to GDS Team in Electronic Format (Yes/No)?
1	California Statewide Residential Sector Energy Efficiency Potential Study (ID #SW063) Final Report; Volume 1	April-03	165	Coito, Fred; Rufo, Mike KEMA-XENERGY Inc.	Pacific Gas & Electric Company	Residential	Efficiency Potential	California	Yes/PDF
2	California Statewide Residential Sector Energy Efficiency Potential Study (ID #SW063) Final Report; Volume 2 (Appendices)	April-03	232	Coito, Fred; Rufo, Mike KEMA-XENERGY Inc.	Pacific Gas & Electric Company	Residential	Efficiency Potential	California	Yes/PDF
3	NJ Appliance/Window	March-01	125	RLW	GPU Energy, PSE&G, Conectiv, NJ NG, Elizabethtown Gas, So Jersey Gas, and Rockland Electric	Residential	Baseline	New Jersey	Yes/PDF
4	NJ Res HVAC					Residential	Baseline	New Jersey	
5	NJ Statewide EE Market Assessment					All	Market Assessment	New Jersey	
6	So Cal Gas EE Program Report					Residential	Annual Report	California	
7	So Cal Gas LI Program Report					Residential	Annual Report	California	
8	Natural Gas Price and Availability Effects of Aggressive Energy Efficiency and Renewable Energy Policies: A Methodology White Paper					All		National	
9	Recent Trends in WI Residential Gas Use	August-99	76	Scott Pigg, Rich Hasselman	Energy Center of WI	Residential	Baseline	Wisconsin	
10	Appliance Sales Tracking: 1999 Residential Survey	March-02	190	ODC	Energy Center of WI	Residential	Sales Tracking	Wisconsin	
11	UT Power Res Survey								

### Q19-4. Commercial Sector Studies

Study #	Title of Document	Date of Publication	Number of Pages in Main Body of Report	Author or Consulting Firm	Organization Publishing the Report	Sector (Residential, Commercial, Industrial)	Type (Program Evaluation, Load Forecast, Market Research Study, Appliance Saturation Survey, Energy Efficiency Plan, etc.)	Market Segment or End Use Targeted by the Report	Report or Study Available to GDS Team in Electronic Format (Yes/No)?
1	California Statewide Commercial Sector Natural Gas Energy Efficiency Potential Study (ID #SW061) Final Report Volume 1	July-03	90	Coito, Fred; Rufo, Mike KEMA-XENERGY Inc.	Pacific Gas & Electric Company	Commercial	Efficiency Potential	California	Yes/PDF
2	California Statewide Commercial Sector Natural Gas Energy Efficiency Potential Study (ID #SW061) Final Report Volume 2 (Appendices)	July-03	117	Coito, Fred; Rufo, Mike KEMA-XENERGY Inc.	Pacific Gas & Electric Company	Commercial	Efficiency Potential	California	Yes/PDF
3	NJ Electric & Gas Utilities: Comm EE Construction Baseline Study: Task 1 Final Report: On-Site Survey of New Construction & Renovation Projects	January-00	101	RLW	Atlantic, PSE&G, GPU	C/I	Baseline	NJ	Yes/PDF
4	NJ Electric & Gas Utilities: Comm EE Lighting and HVAC Baseline Study: Task II Report Decision-Maker Interviews	February-00	16	Roper Starch, RLW	Atlantic, PSE&G, GPU	C/I	Baseline	NJ	Yes/PDF
5	NJ Electric & Gas Utilities: Comm EE Lighting and HVAC Baseline Study Task III Report: Equipment Replacement and Remodeling Interviews	February-00	24	RLW	Atlantic, PSE&G, GPU	C/I	Baseline	NJ	Yes/PDF
6	MN Master Tech Assumptions		10				B/C Assumptions	MN LG C/I	Yes/Excel
7	MN Commercial EE Boiler	November-03	6	Shawn White	Xcel Energy	Commercial	Program Assessment	MN	Yes/Word
8	UT Power Comm Survey								

### Q19-5. Industrial Sector Studies

Study #	Title of Document	Date of Publication	Number of Pages in Main Body of Report	Author or Consulting Firm	Organization Publishing the Report	Sector (Residential, Commercial, Industrial)	Type (Program Evaluation, Load Forecast, Market Research Study, Appliance Saturation Survey, Energy Efficiency Plan, etc.)	Market Segment or End Use Targeted by the Report	Report or Study Available to GDS Team in Electronic Format (Yes/No)?
1	MN Master Tech Assumptions					C/I	B/C Assumptions	MN LG C/I	Yes

### Q19-6. IRP's Supplied by Questar Gas

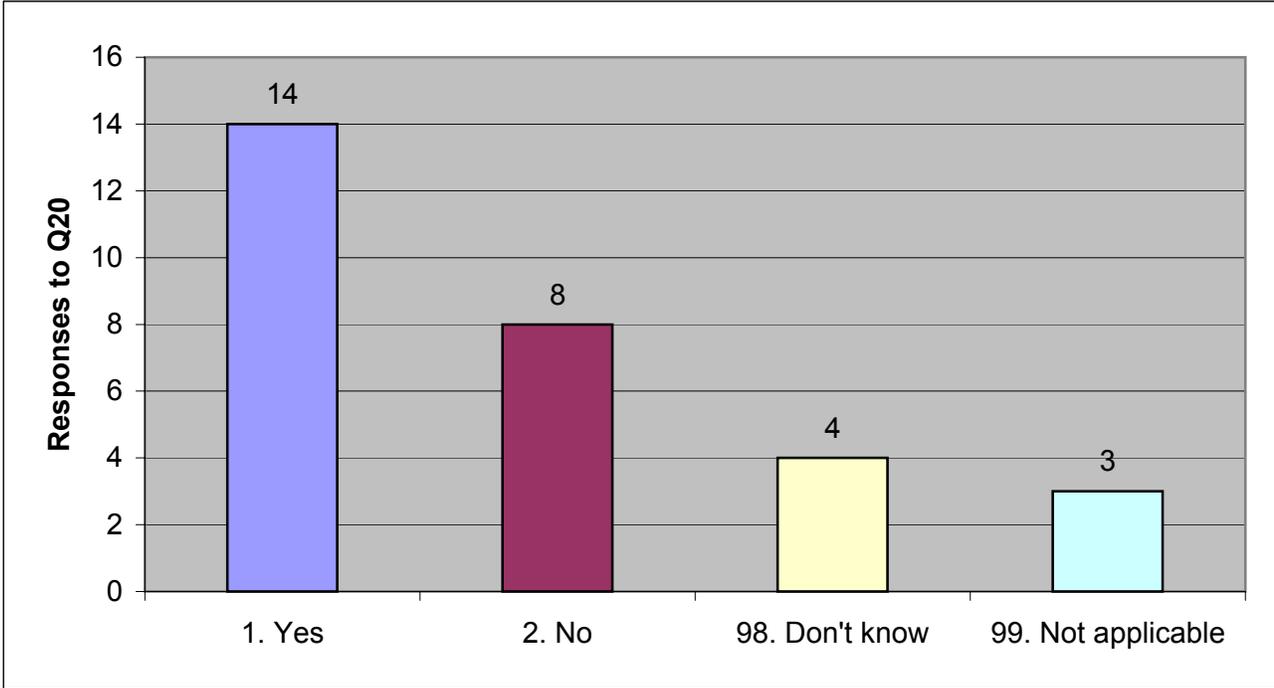
File #	Title of Document	Date of Publication	Number of Pages/Tabs in Main Body of Report	Author or Consulting Firm	Organization Publishing the Report	Sector (Residential, Commercial, Industrial)	Type (Program Evaluation, Load Forecast, Market Research Study, Appliance Saturation Survey, Energy Efficiency Plan, etc.)	Market Segment or End Use Targeted by the Report	Report or Study Available to GDS Team in Electronic Format?
1	Questar Gas Company Integrated Resource Plan Interim Update	May-98	36	Questar	Questar	All	Integrated Resource Plan	n/a	No
2	Questar Gas Company Integrated Resource Plan Interim Update	May-03	30	Questar	Questar	All	Integrated Resource Plan	n/a	No

## Q19-7. Other Gas DSM Documents

File #	Title of Document	Date of Publication	Number of Pages/Tabs in Main Body of Report	Author or Consulting Firm	Organization Publishing the Report	Sector (Residential, Commercial, Industrial)	Type (Program Evaluation, Load Forecast, Market Research Study, Appliance Saturation Survey, Energy Efficiency Plan, etc.)	Market Segment or End Use Targeted by the Report	Report or Study Available to GDS Team in Electronic Format?
1	Impacts of Energy Efficiency and Renewable Energy on Natural Gas Markets-Final Report	December-03	98	Elliot, RN et al; and Petak, Kevin (Energy and Env Analysis, Inc.)	ACEEE	Wholesale	Program Market Impacts	Wholesale Market	PDF
2	NW Natural Avoided Costs (Exhibits from filing)	October-02	10	Dr. John Hansen	NW Natural	All	Avoided Costs	n/a	PDF
3	NW Natural 2000 IRP Exec Summary	July-02	16	NW Natural	NW Natural	All	IRP	n/a	PDF
4	NW Natural 1995 IRP Exec Summary	July-02	19	NW Natural	NW Natural	All	IRP	n/a	PDF
5	The Secret To Unleashing Natural Gas Utility Energy Efficiency Programs	July-02	12	Stephen Bicker, NW Natural/Ed Wisniewski, CEE	ACEEE	All	White Paper	n/a	PDF
6	NJ Clean Energy Annual Report	July-02	20	New Jersey Board of Public Utilities	NJ BPU	All	Annual Report	n/a	PDF
7	2001 DEER								
8	INPUTS TO BENCOST FOR GAS CIPS			Steve Minder	MN Dept of Comm				
9	Americia's Best: Profiles of America's Leading Energy Efficiency Programs	December-03	47 (plus 63 Indiv Prog Descriptions)	Dan York and Marti Kushler	ACEEE	All	Program Descriptions	Varies	PDF
10	A Framework for Planning and Assessing Publicly Funded Energy Efficiency	March-01	220	Frederick Sebold and Alan Fields (RER); Lisa Skumatz; Shel Feldman; Miriam Goldberg; Ken Keating; Jane Peters	PG&E	All	Program Design, Theory and Policy	Varies	PDF

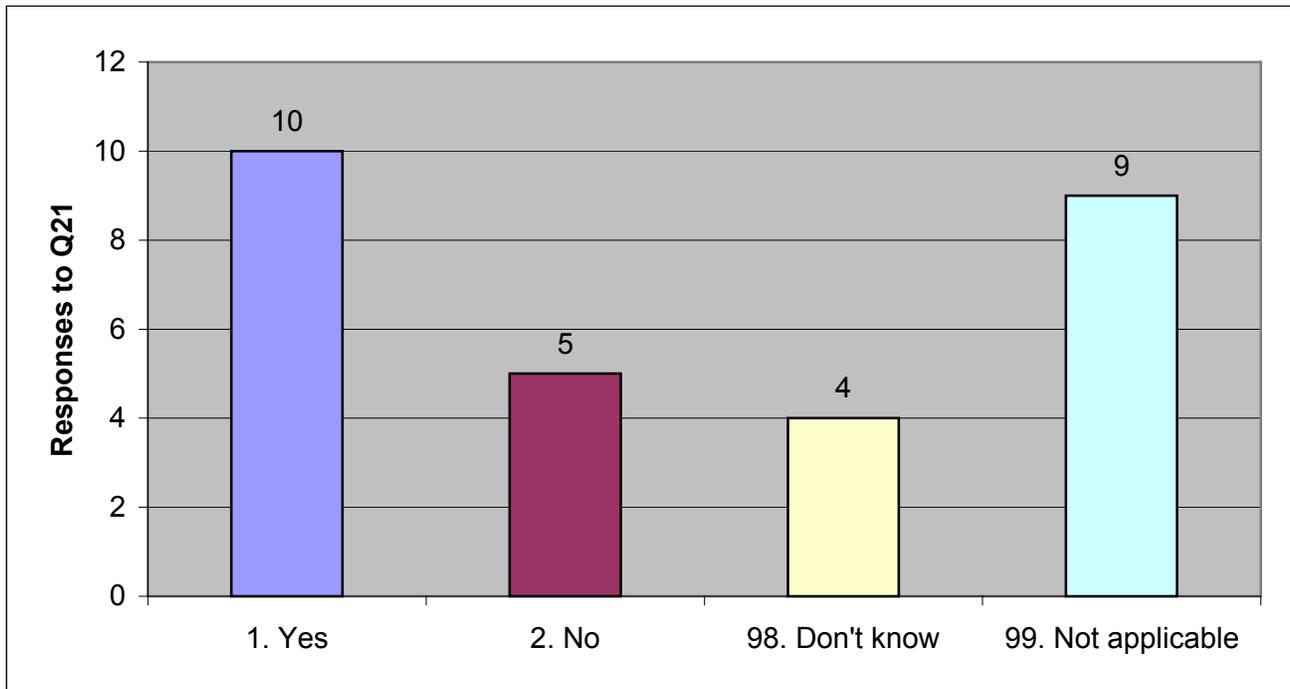
**Q20. Do you have any data you could share on natural gas energy efficiency measure (full) costs, incremental costs, useful lives, annual therm savings?**  
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	14	48.28%
2. No	8	27.59%
98. Don't know	4	13.79%
99. Not applicable	3	10.34%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>



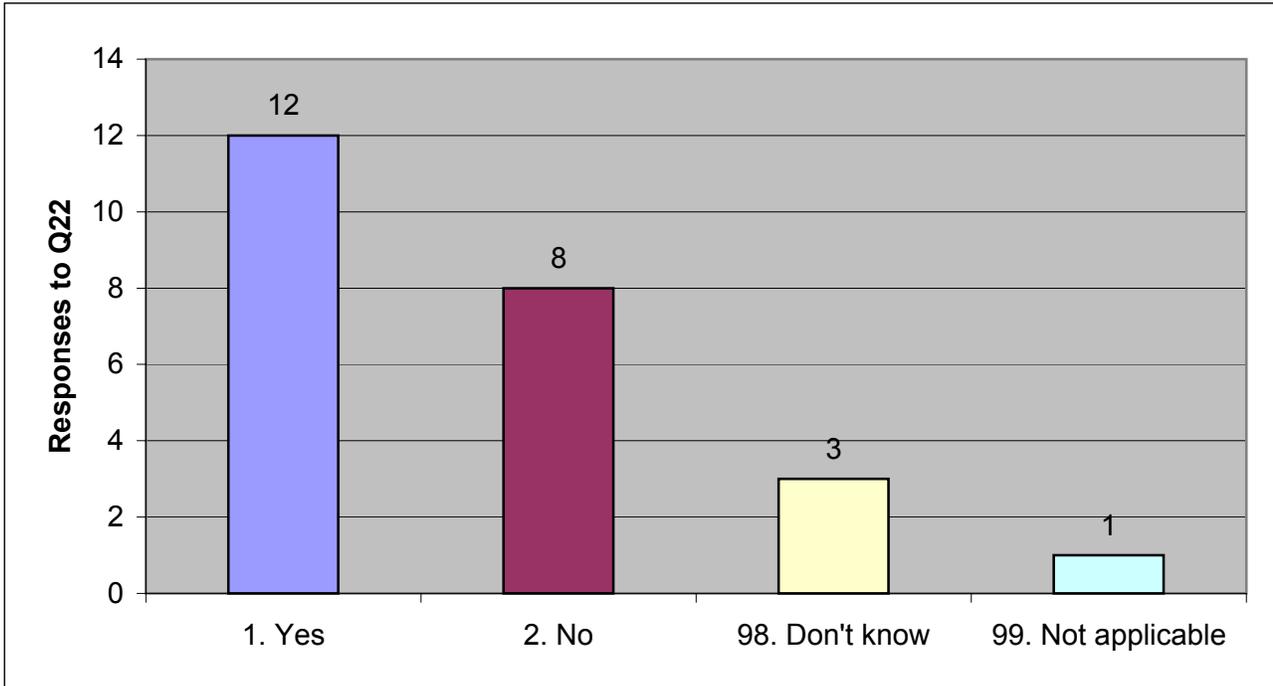
**Q21. If yes, is there a website where this data can be downloaded or could you email it to me?**  
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	10	35.71%
2. No	5	17.86%
98. Don't know	4	14.29%
99. Not applicable	9	32.14%
<b>TOTAL:</b>	<b>28</b>	<b>100.00%</b>



**Q22. Do you have any publicly available program evaluation reports, market assessment and baseline studies, appliance saturation studies?**  
(check one)

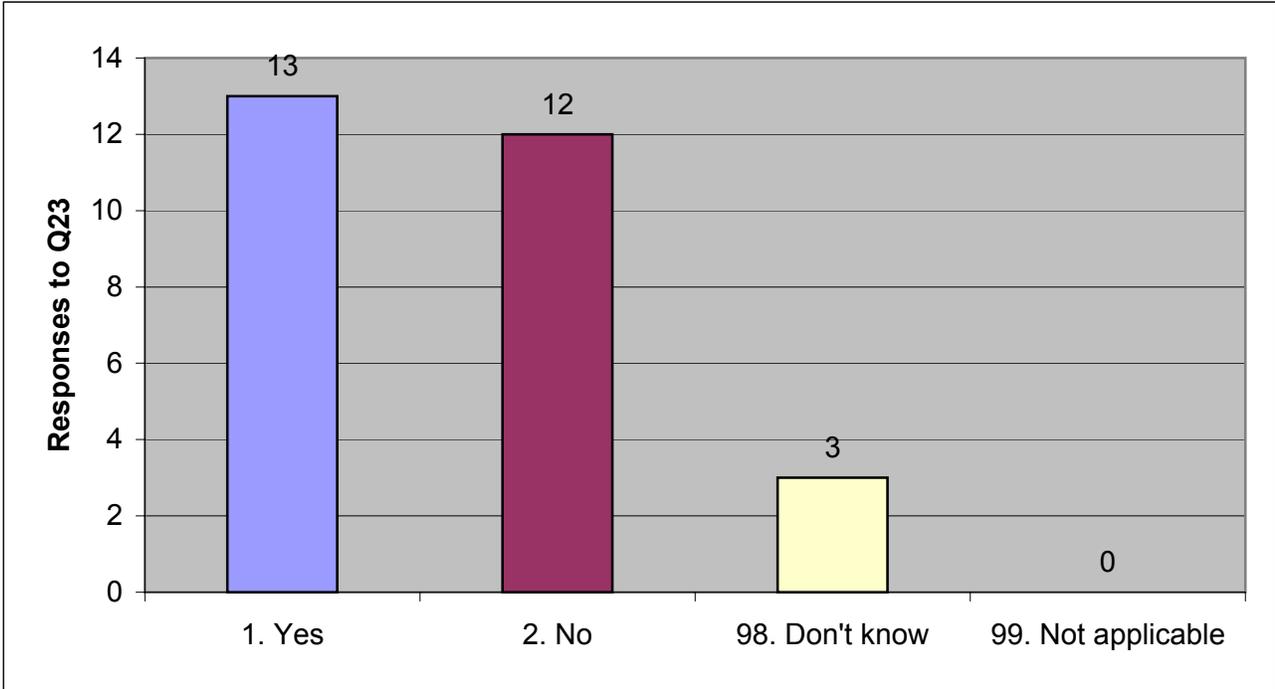
	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	12	50.00%
2. No	8	33.33%
98. Don't know	3	12.50%
99. Not applicable	1	4.17%
<b>TOTAL:</b>	<b>24</b>	<b>100.00%</b>



**Q23. Do you have a forecast of natural gas avoided costs?**

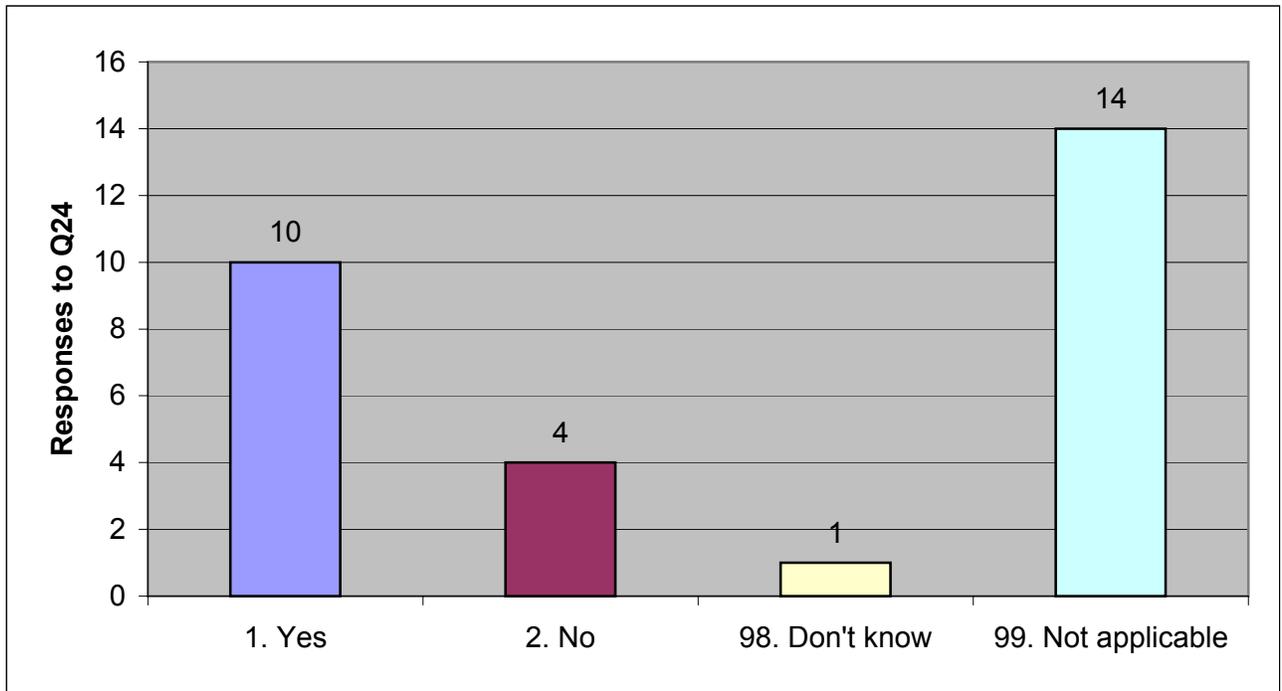
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	13	46.43%
2. No	12	42.86%
98. Don't know	3	10.71%
99. Not applicable	0	0.00%
<b>TOTAL:</b>	<b>28</b>	<b>100.00%</b>



**Q24. Is it publically available?**  
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	10	34.48%
2. No	4	13.79%
98. Don't know	1	3.45%
99. Not applicable	14	48.28%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>

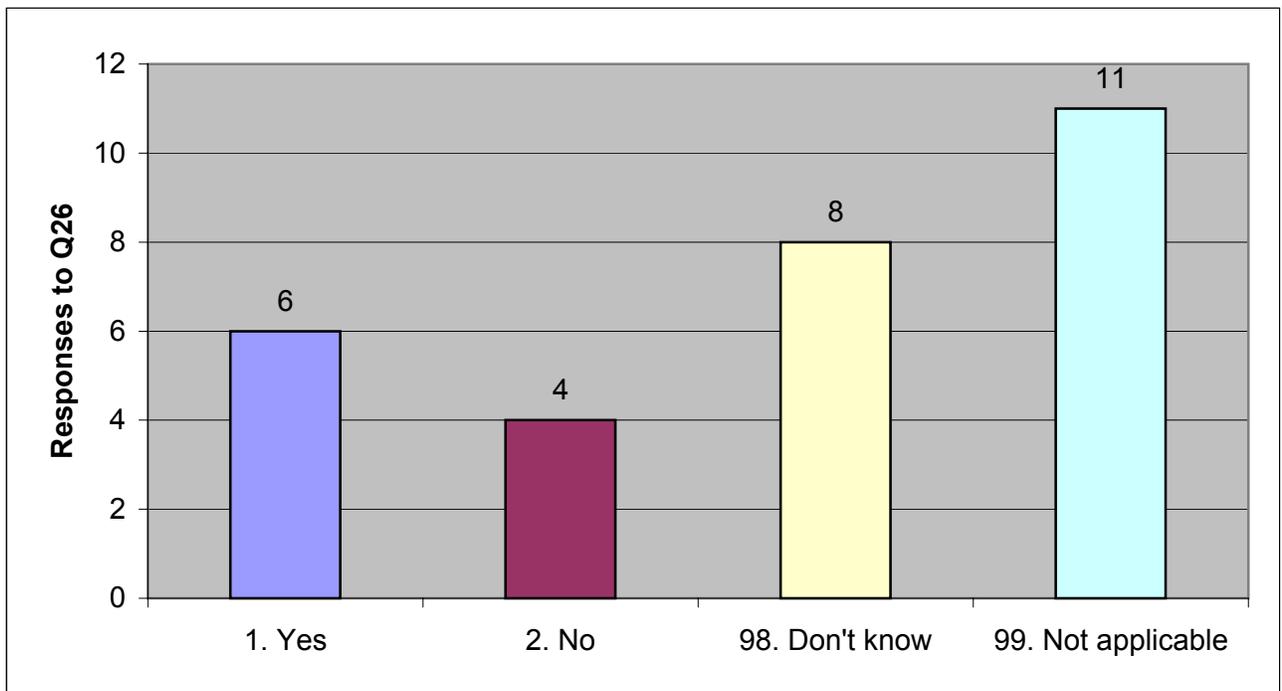


**Q25. Where do you have a forecast of gas avoided costs?**

<b>Organization</b>	<b>Response</b>
Berkshire Gas	August 2003 Report by ICF - Electronic copy available from GDS.
Enbridge - Ontario	With DSM plan appendices
Gaz Metropolitan	Everything from national (US) groups
KeySpan Energy Delivery	AESC Working Group Report - August 2003 - GDS already has this report.
Northwestern Energy Utility	<a href="http://www.nwcouncil.org">www.nwcouncil.org</a> - Northwestern Power & Conservation Council - for gas info
NW Natural	Part of IRP - See website - Regulatory Section - John Hanson
Pacific Gas & Electric	<a href="http://www.calmac.org">www.calmac.org</a>
Puget Sound Energy	Least Cost Planning.doc - sent to Dick Spellman
Southern California Gas	Energy Efficiency Policy Manual from <a href="http://www.capuc.gov">www.capuc.gov</a>
Unitil (Fitchburg Gas & Electric)	August 2003 ICF Report

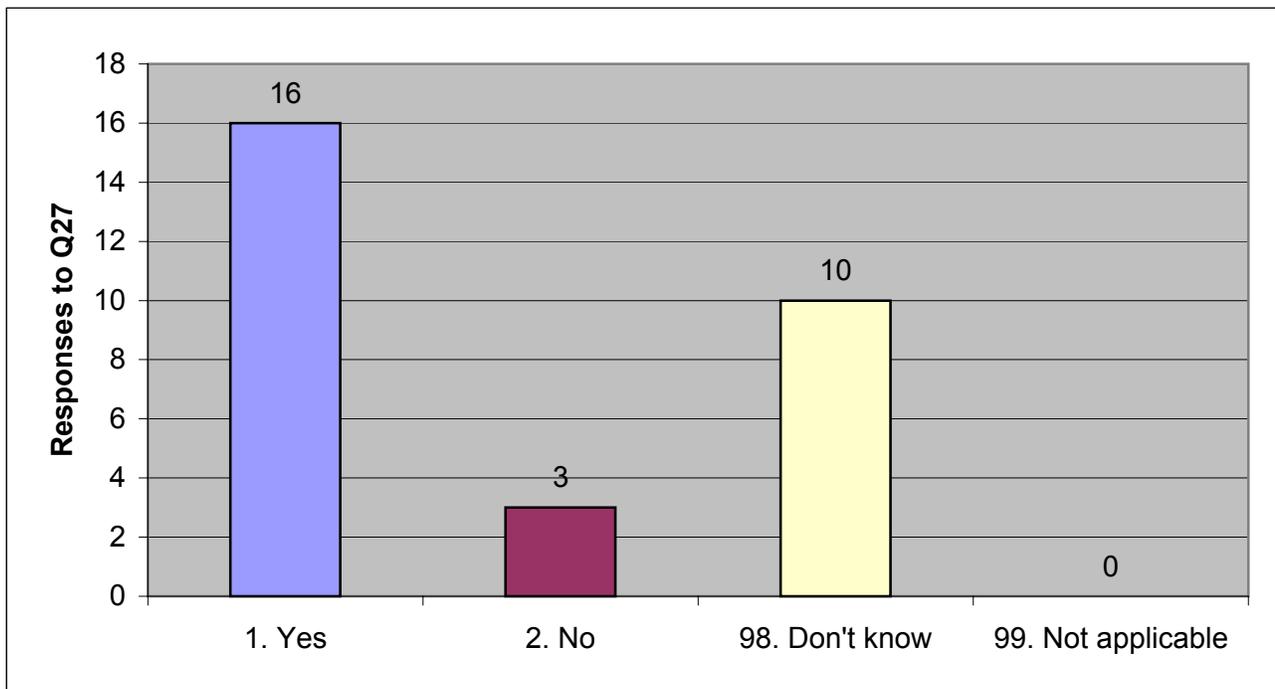
**Q26. Does this forecast of avoided gas costs include avoided gas distribution costs?**  
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	6	20.69%
2. No	4	13.79%
98. Don't know	8	27.59%
99. Not applicable	11	37.93%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>



**Q27. Can successful gas DSM programs or energy efficiency information programs avoid gas distribution costs?**  
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	16	55.17%
2. No	3	10.34%
98. Don't know	10	34.48%
99. Not applicable	0	0.00%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>

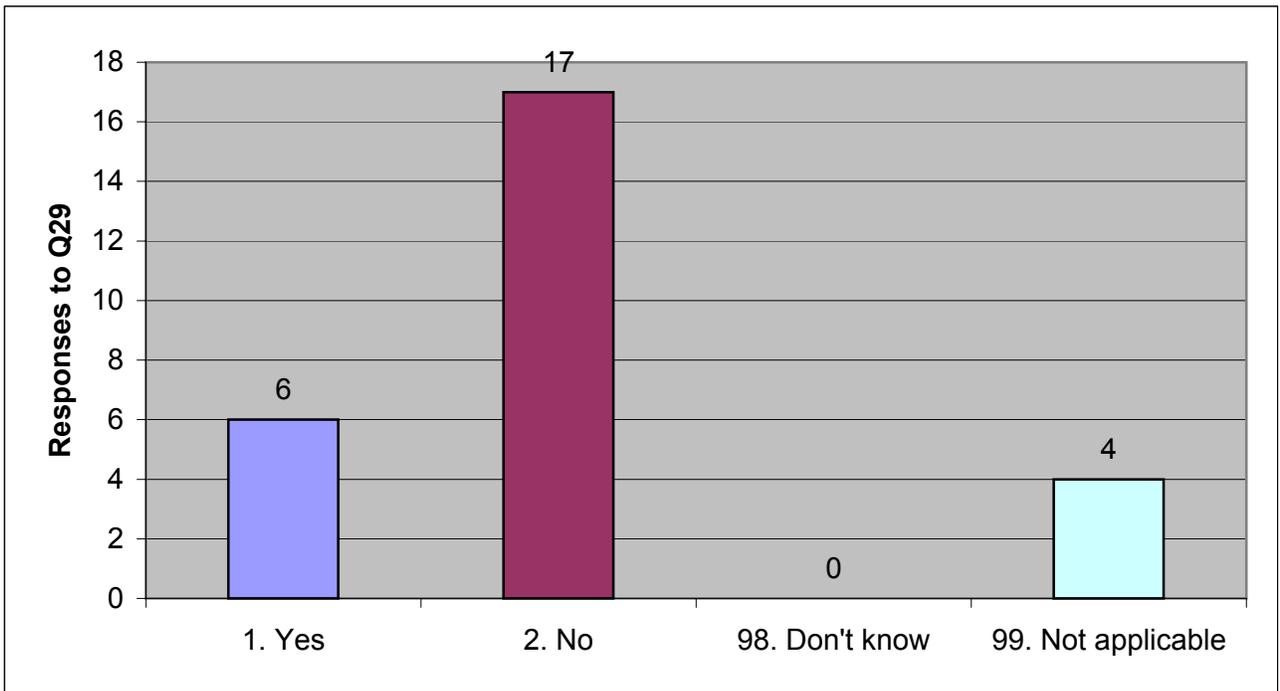


**Q28. How can successful gas DSM programs or energy efficiency information programs avoid gas distribution costs?**

Atmos Energy	Avoid/defer existing system as you get growth.
Berkshire Gas	By targeting distributions areas that are constrained.
Enbridge - Ontario	Not sure, but at one time they did, but have avoided distribution costs, but because they are a winter peaking utility and hence have a great deal of storage, the distribution costs were small
Gaz Metropolitan	Part of energy not using is in system not being used - so there is more capacity so you don't have to expand distribution
Intermountain Gas Company	Cost of measure shouldn't be more than the fuel its saving. If it is cost effective, people should be doing it themselves. Education programs will also help.
Northwestern Energy Utility	Leverage a lot of sources to do it cost effectively (gas & electric)
NW Natural	By reducing timeline for the need of new capacity
Pacific Gas & Electric	not sure
Public Service Electric & Gas	Downsize equipment because you're building tighter home, you should be able to get away with a smaller infrastructure.
Puget Sound Energy	It saves on customer's side, you save capacity of your system.
Questar Gas	Some distribution non-gas costs could theoretically be avoided, but they are probably very small given the likely range of demand reduction levels.
South Jersey Gas	Not like electric unless there's system constraints.
Southern California Gas	Don't know - commission
Southwest Gas	In the right climate zones (winter)
Vermont Gas Systems, Inc.	Defer pipeline expansion
Xcel Energy-Colorado	If it can be done for electric utilities, there is no reason why the same would not apply to gas utilities.

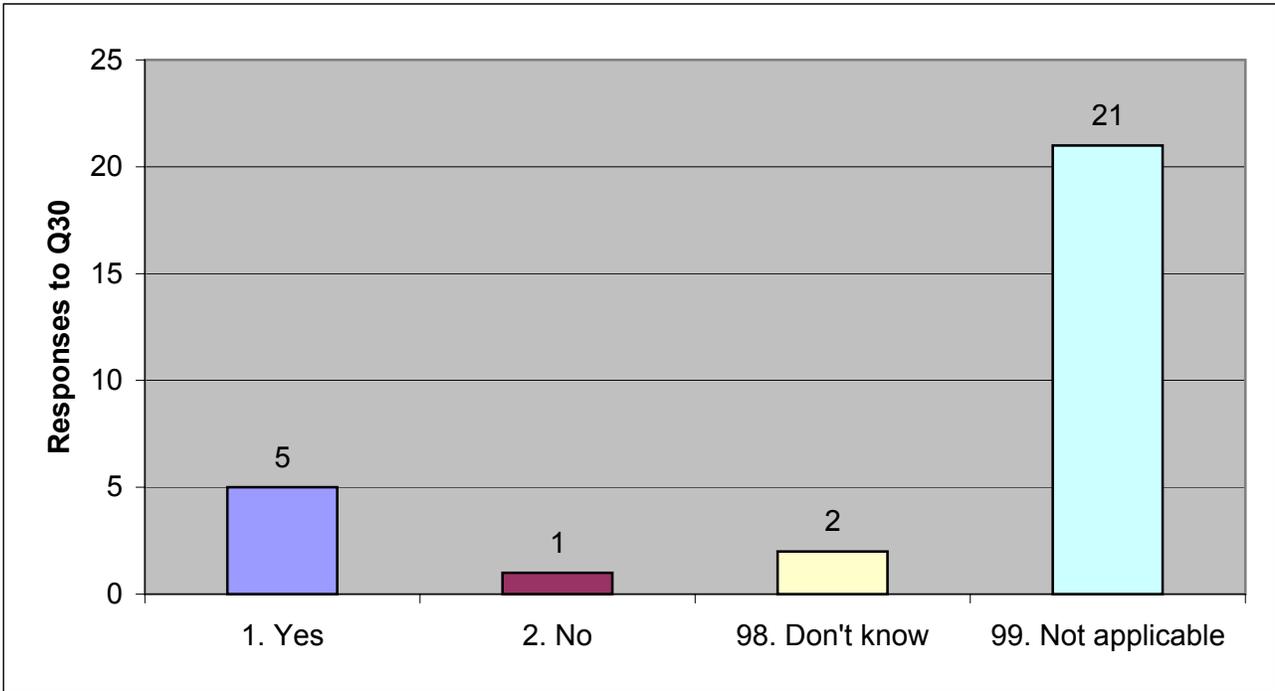
**Q29. Have you presented papers at recent press conferences (AESP, CEE, AGA, etc.) on your Gas DSM or energy efficiency information programs?**  
(check one)

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	6	22.22%
2. No	17	62.96%
98. Don't know	0	0.00%
99. Not applicable	4	14.81%
<b>TOTAL:</b>	<b>27</b>	<b>100.00%</b>



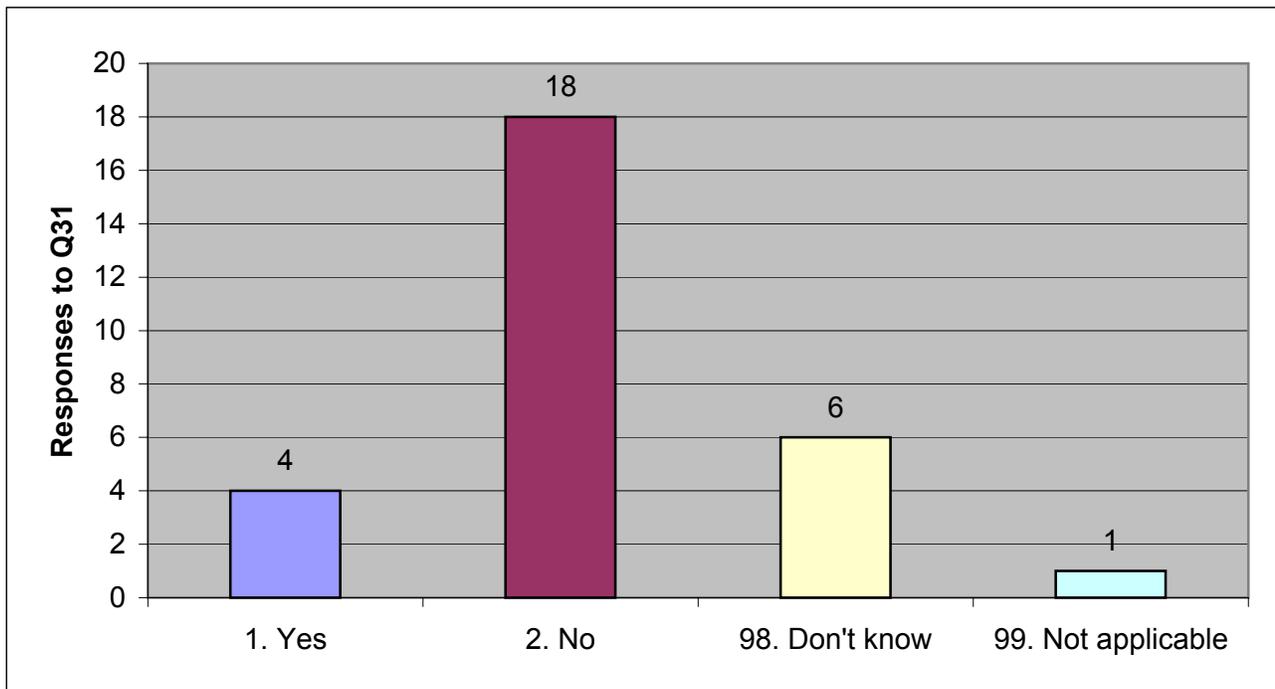
**Q30. If yes, can you email a copy of any such papers to me?**  
(check one)

	Number of Respondents	Percentage of Total
1. Yes	5	17.24%
2. No	1	3.45%
98. Don't know	2	6.90%
99. Not applicable	21	72.41%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>



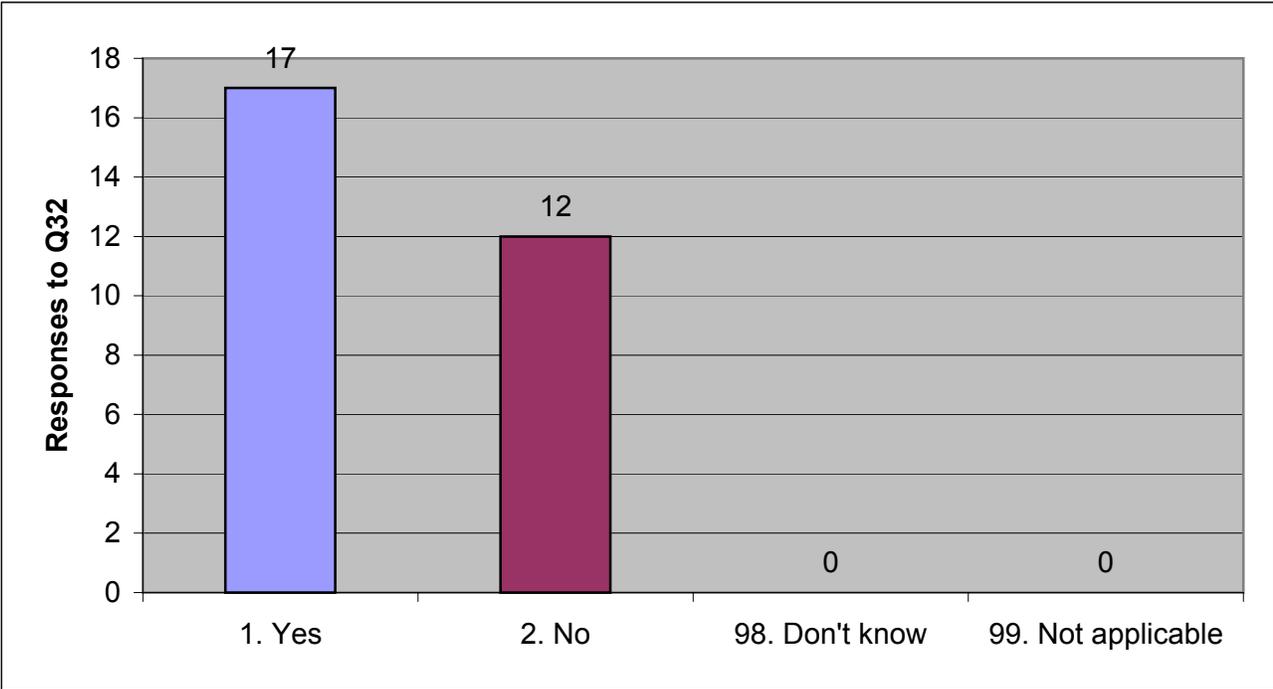
**Q31. Do you know of any recent studies conducted that compare natural gas energy savings from gas energy efficiency programs and the implementation costs of Gas DSM programs for gas utilities in North America?**  
(check one)

	Number of Respondents	Percentage of Total
1. Yes	4	13.79%
2. No	18	62.07%
98. Don't know	6	20.69%
99. Not applicable	1	3.45%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>



**Q32. Has your gas company sponsored or participated in any initiatives related to energy efficiency standards or building codes in your state?**  
 (check one)

	Number of Respondents	Percentage of Total
1. Yes	17	58.62%
2. No	12	41.38%
98. Don't know	0	0.00%
99. Not applicable	0	0.00%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>

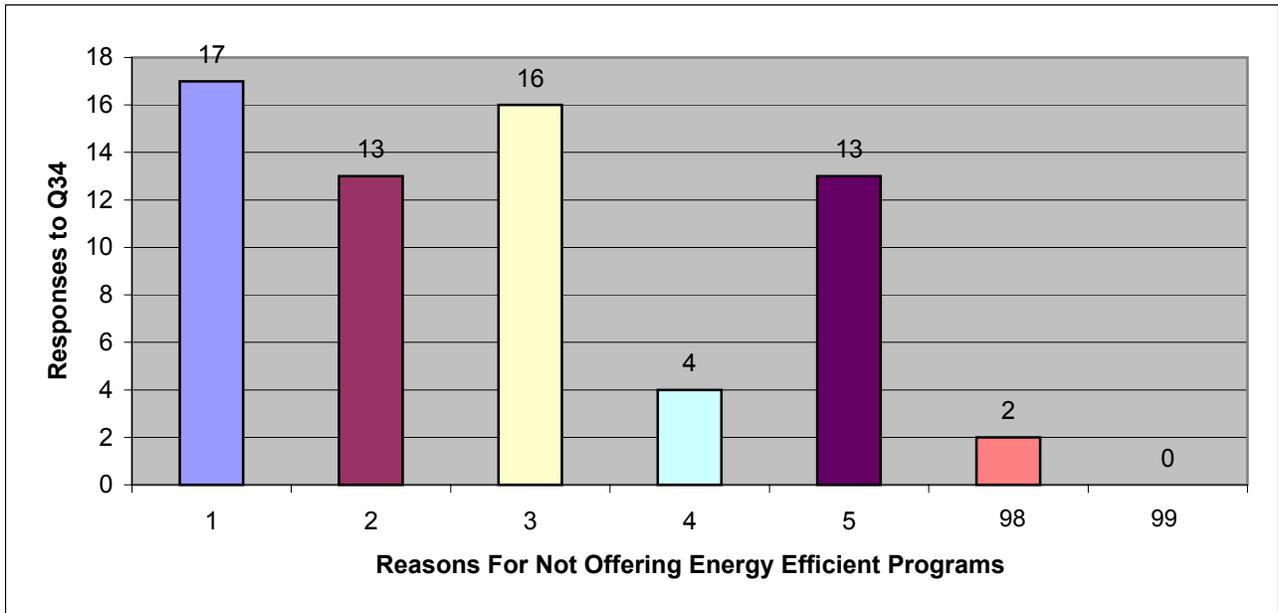


**Q33. Can you provide a description of the initiative, and tell me what the results have been to date?**

<b>Organization</b>	<b>Response</b>
Avista	Indirectly as a member of NWEAA (North West Energy Efficiency Alliance.
Bay State Gas	Mass. Board of Building, Regulations and Standards Energy Advisory Committee.
Berkshire Gas	BBRS classes at Boston College for residential building officials.
Enbridge - Ontario	Program managers involved in committees to up building codes and standards through design charettes/workshops.
Gaz Metropolitan	CAGA, Federal Provincial Government
Intermountain Gas Company	Works closely with the Government affairs side at Home Builders Association. Works with NWEAA. And a member of AGA Advocacy.
KeySpan Energy Delivery	Efforts have been done to focus on code awareness and compliance only.
Madison Gas & Electric	Participate in task focus. Have building code collaborative with NE Energies.
MidAmerican Energy	Participated in workshops on the topic put on by the state.
New England Gas Co.	Mass. Board of Building, Regulations and Standards. Very positive. Goes back to 1999-2000, utility sponsored training to promote standards and provide information on CDs to contractors.
Northwestern Energy Utility	Informal participation.
NW Natural	Weighed into public discussions.
Pacific Gas & Electric	Worked with code committee to ID emerging technologies that are ready for incorporation into building codes.
Puget Sound Energy	Support with education programs.
South Jersey Gas	As a collaborative with building code training. ASHRAE '99 - for residential and commercial.
Southern California Gas	Codes and standards program - process and involvement.
Southwest Gas	Have watched legislation but has not been an active participant.
Vermont Gas Systems, Inc.	Had representatives on the committee that developed Energy Efficiency Standards in Vermont.
WE Energies	Building code collaborative sponsored by We-Energies to remove Mercury Thermostats from residential housing, and sealed combustion water heating appliances.

**Q34. To your knowledge, what are some of the reasons that some gas utilities do not offer energy efficiency or DSM programs?**  
 (check all that apply)

	<b>Number of Respondents</b>
1. Concern over lost revenue	17
2. Concern over rate impacts	13
3. Concern about difficulty of getting cost recovery for program expenditures	16
4. Concern about difficulty of getting shareholder incentives	4
5. Other	13
98. Don't know	2
99. Not applicable	0



## Listing of Other Responses to Question 34

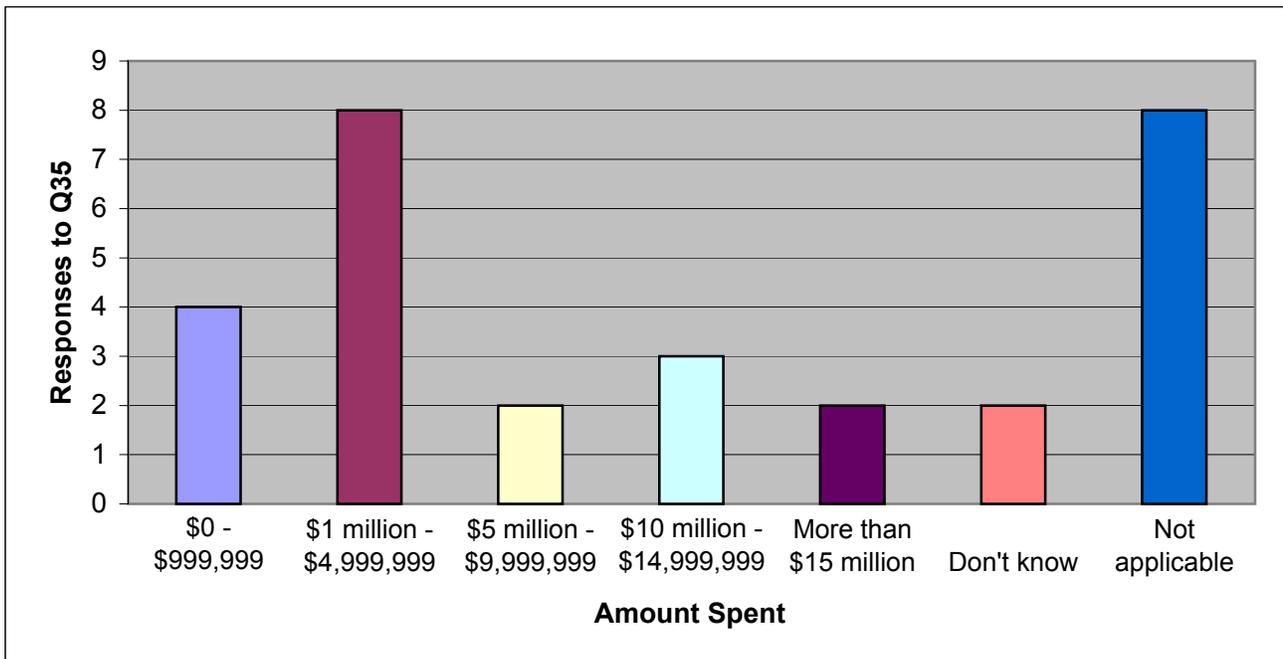
Avista	Less regulatory and/or customer interest
Bay State Gas	Always leads to reduced sales. Does not meet every gas company's business model
Berkshire Gas	Lost based revenue
Intermountain Gas Company	Keeping prices affordable, does the program benefit the majority
Kinder Morgan	Too small of a company to do it.
Montana-Dakota Utilities	No need or requirement from regulations.
New England Gas Co.	Not required
Northwestern Energy Utility	Keep rates lower
Oncor/TXU Gas	Not required to offer them
Pacific Gas & Electric	Excess capacity had been built, no benefit.
Southwest Gas	In hot climate where measures are not cost-effective from a natural gas perspective.
Vermont Gas Systems, Inc.	Counterintuitive
WE Energies	Market Saturation/Free Ridership - Residential

**Q35. How much did your company spend in 2002 on Gas DSM or energy efficiency programs, including energy efficiency information programs, for all states served?**

<b>Amount Spent</b>	<b>Number of Respondents</b>	<b>Percentage of Total</b>
\$0 - \$999,999	4	13.79%
\$1 million - \$4,999,999	8	27.59%
\$5 million - \$9,999,999	2	6.90%
\$10 million - \$14,999,999	3	10.34%
More than \$15 million	2	6.90%
Don't know	2	6.90%
Not applicable	8	27.59%

**TOTAL: 29 100.00%**

**Average Spent: \$9,494,735**

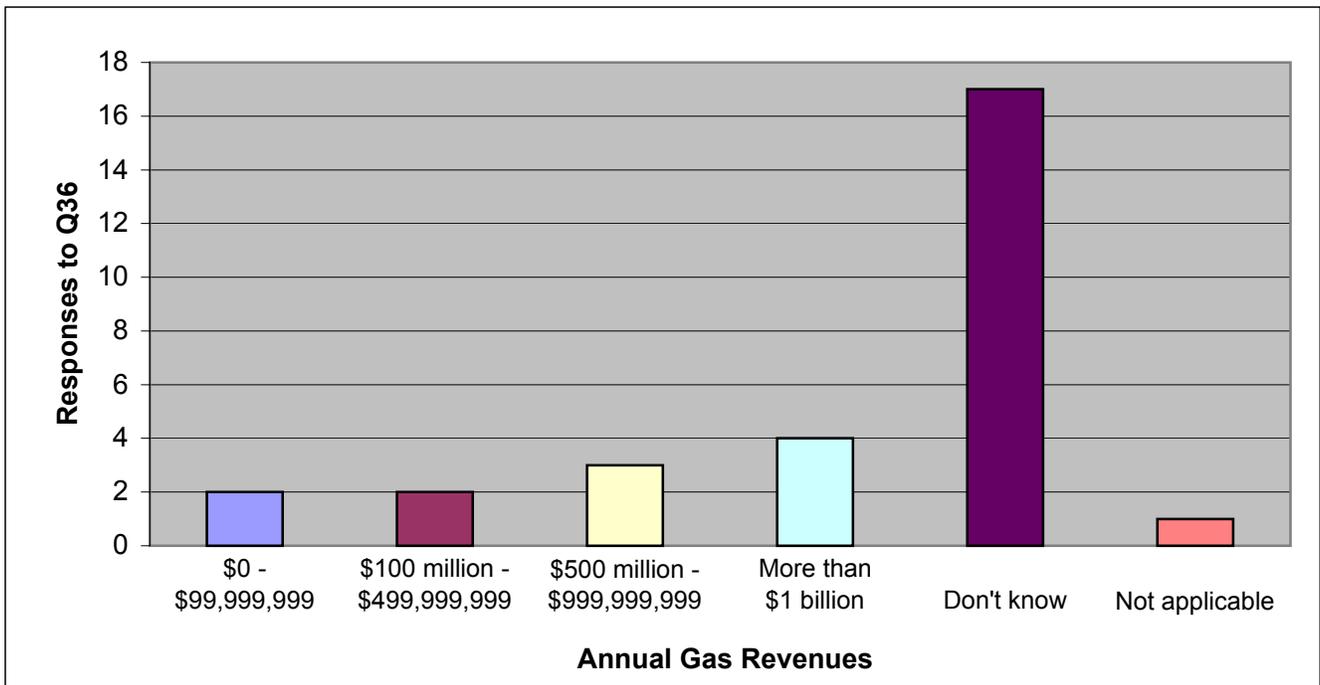


**Q36. What were the total annual retail revenues in 2002 for natural gas sales for your company for all states served?**

<b>Annual Gas Revenues</b>	<b>Number of Respondents</b>	<b>Percentage of Total</b>
\$0 - \$99,999,999	2	6.90%
\$100 million - \$499,999,999	2	6.90%
\$500 million - \$999,999,999	3	10.34%
More than \$1 billion	4	13.79%
Don't know	17	58.62%
Not applicable	1	3.45%

**TOTAL: 29 100.00%**

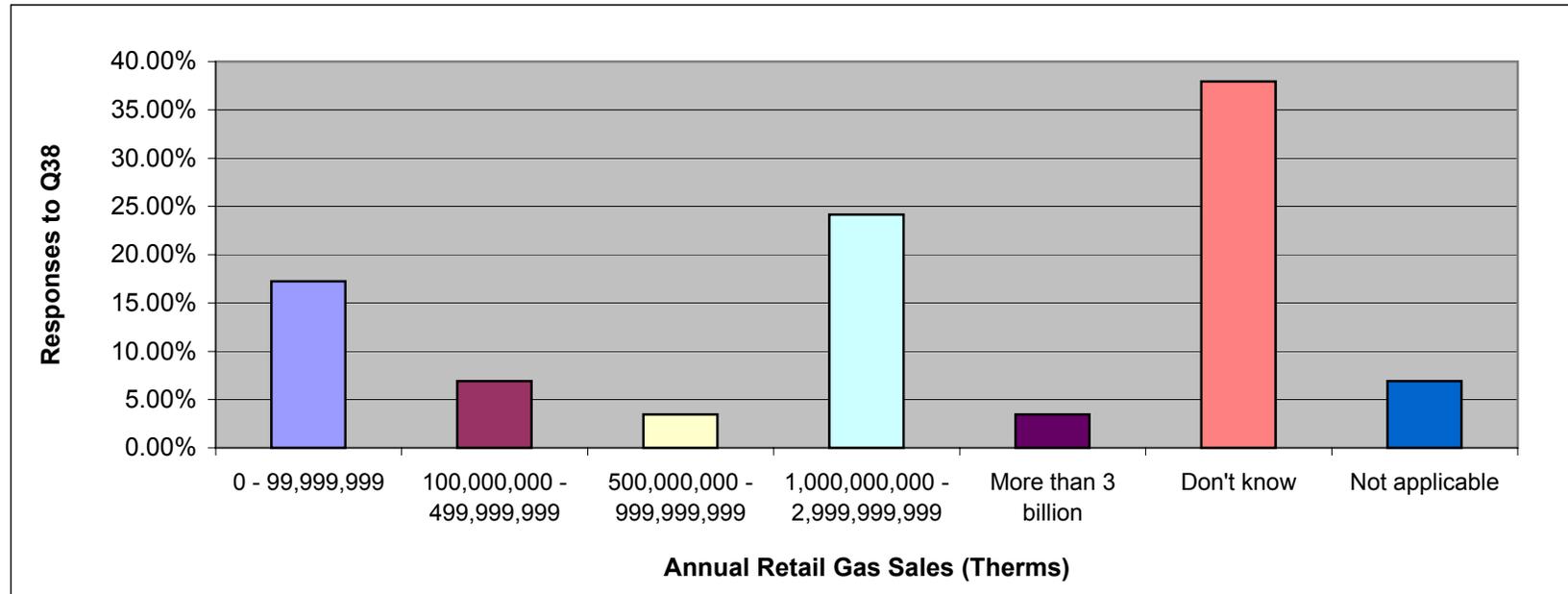
**Average Revenue: \$798,105,165**



**Q37. What were the total annual retail sales in therms in 2002 for your company in all states served?**

Annual Retail Gas Sales (Therms)	Number of Respondents	Percentage of Total
0 - 99,999,999	5	17.24%
100,000,000 - 499,999,999	2	6.90%
500,000,000 - 999,999,999	1	3.45%
1,000,000,000 - 2,999,999,999	7	24.14%
More than 3 billion	1	3.45%
Don't know	11	37.93%
Not applicable	2	6.90%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>

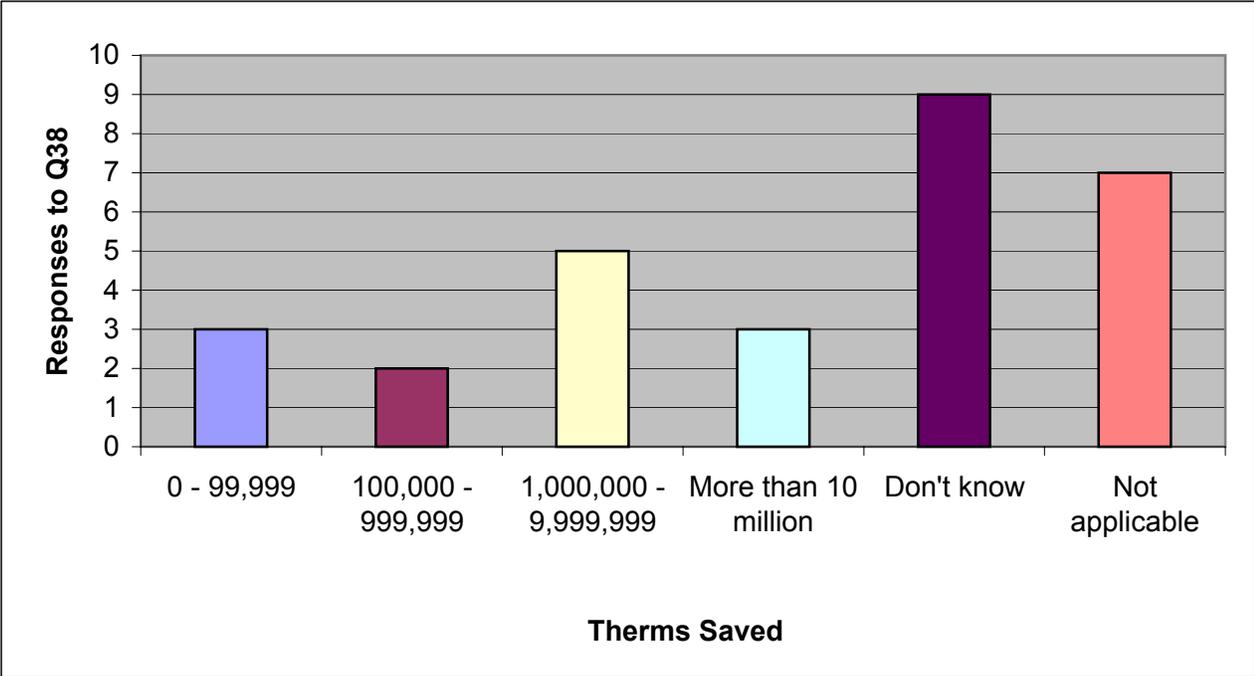
**Average Annual Sales of Therms: 2,116,325,857**



**Q38. What were the total annual therms saved in 2002 for all gas DSM and energy programs (including information/tips programs) combined for all states served?**

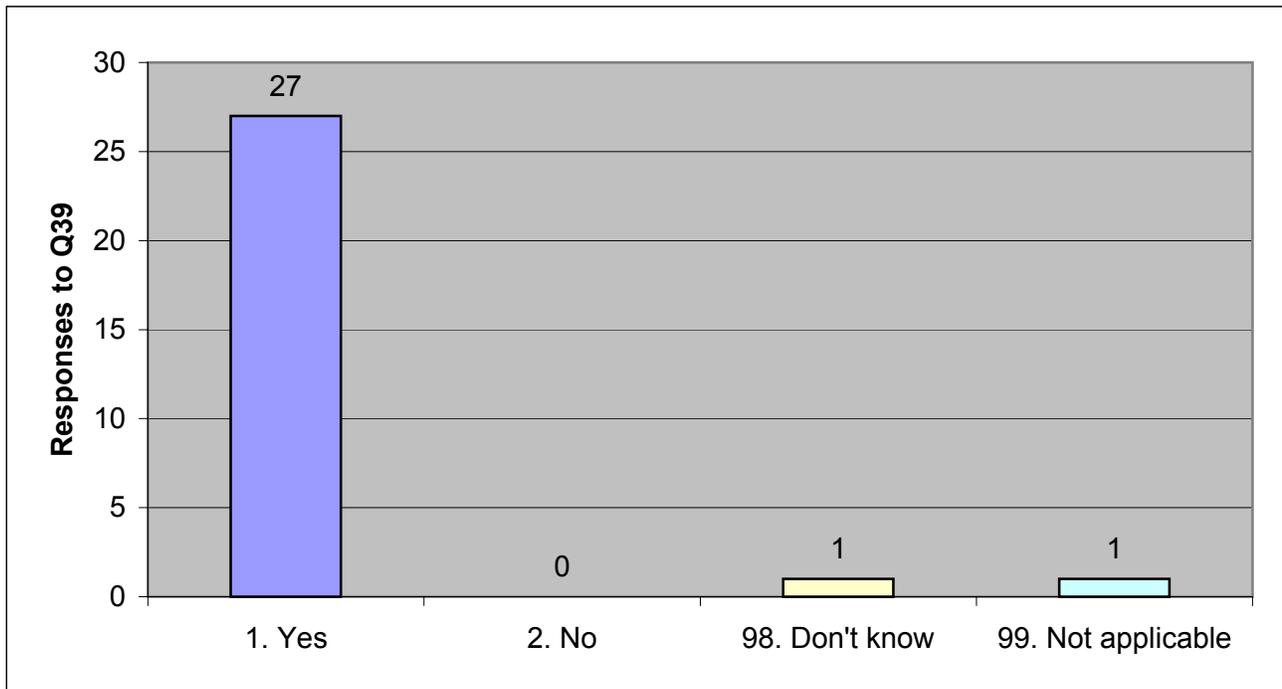
Therms	Number of Respondents	Percentage of Total
0 - 99,999	3	10.34%
100,000 - 999,999	2	6.90%
1,000,000 - 9,999,999	5	17.24%
More than 10 million	3	10.34%
Don't know	9	31.03%
Not applicable	7	24.14%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>

**Average Annual Therms of Gas Saved: 93,929,836**



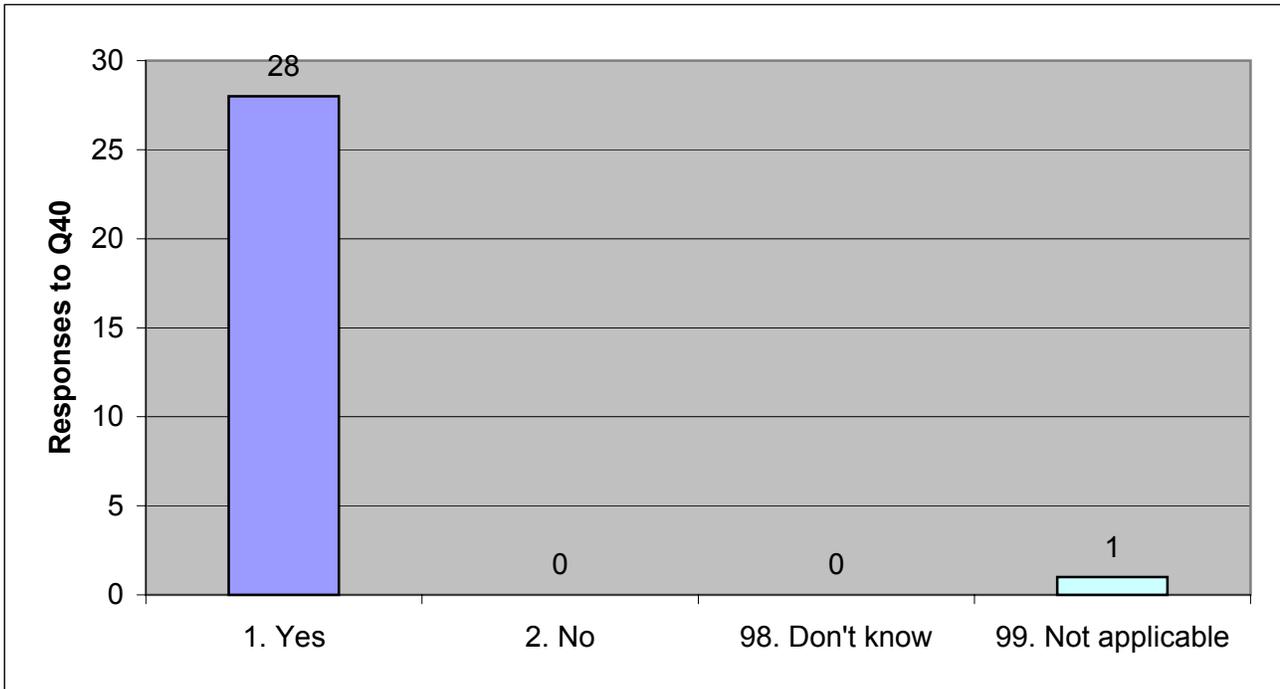
**Q39. This Committee is willing to share the results of this survey with you. Would you be interested in the survey results?**

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	27	93.10%
2. No	0	0.00%
98. Don't know	1	3.45%
99. Not applicable	1	3.45%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>



**Q40. Are you willing to share your survey responses with other respondents to this survey, so long as your responses are just included in the overall survey results and are not listed separately?**

	<b>Number of Respondents</b>	<b>Percentage of Total</b>
1. Yes	28	96.55%
2. No	0	0.00%
98. Don't know	0	0.00%
99. Not applicable	1	3.45%
<b>TOTAL:</b>	<b>29</b>	<b>100.00%</b>



# **APPENDIX A**

**Utah Natural Gas DSM Advisory Committee**  
**Questionnaire for North American Natural Gas Distribution Organizations**  
**On DSM and Energy Efficiency Program Practices**  
**11/07/2003**

**1.0 Introduction**

Hello. My name is Bruce Bennett, and I am with GDS Associates. I am calling on behalf of the Utah Gas DSM Advisory Committee, one of our clients. We are interested in speaking to someone at your organization about your natural gas energy efficiency programs and energy efficiency information. This survey should only take about fifteen minutes of your time.

**2.0 Basic Data**

Q1. Name of Natural Gas Utility: \_\_\_\_\_

Q2. Contact Person: \_\_\_\_\_

Q3. E-mail address: \_\_\_\_\_

Q4. Phone number (ext): \_\_\_\_\_

Q5. Web site: www. \_\_\_\_\_

Q6. Date of Interview: \_\_\_\_\_

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**3.0 Questionnaire**

Q7. Is (your company) offering natural gas Energy Efficiency or DSM Programs, including energy efficiency information programs? (check one)

1. Yes (If yes, **Skip to Question 9**)
2. No (If no, proceed to Question 8)
98. Don't know

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Q8. Why isn't your company offering energy efficiency programs? (check all that apply) – **then Skip to Question 18** (skip questions 9 to 17)

1. Concerned about lost revenues
2. Concerned about adverse rate impacts
3. There is no demand from our customers for such programs
4. There is not regulatory requirement for us to conduct such programs
5. There is no Federal or State law mandating that we conduct such programs
6. Such programs are not cost effective in our service area
7. Other (please explain: \_\_\_\_\_)
98. Don't know
99. Not applicable

Q9. Why are your organization offering Energy Efficiency programs? [prompt if necessary] (check all that apply)

1. To delay the need for future capital investments
2. To provide customer service
3. Because it is required by regulatory agencies
4. To improve the environment
5. To help our customers save money
6. Other reasons: \_\_\_\_\_
98. Don't know
99. Not Applicable

Q10. How does your company recover expenditures associated with the costs of administering and marketing Energy Efficiency Programs? [re-stated: What kind of cost recovery does your company have for program expenditures?] [prompt if necessary] (check one)

1. Recovery through gas rates
2. System benefits charge applied to every therm of gas sold
3. Rider on gas rates
4. Other type of recovery: \_\_\_\_\_
98. Don't know
99. Not applicable

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Q11. Does your company get any shareholder incentives for conducting Energy Efficiency programs? (check one)

- 1. Yes
- 2. No (skip to question 12)
- 98. Don't know
- 99. Not applicable

Q12. If yes, what is the incentive mechanism? [prompt if necessary] (check all that apply)

- 1. No shareholder incentives
- 2. Program specific metrics
- 3. Percentage of net benefits from programs
- 4. Incentive based on actual therm savings
- 5. Benefit/Cost metrics
- 6. Other incentive mechanism: \_\_\_\_\_
- 98. Don't know
- 99. Not applicable

Q13. How many DSM Programs does your organization currently offer? \_\_\_\_

- 98. Don't know
- 99. Not applicable

Next, I'd like to ask you about each of the Energy Efficiency Programs that you offer.

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Q14. What are these energy efficiency programs, what measures are delivered through these programs and what incentives are offered through these programs?

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Program Name		Measures Delivered through Program		Incentives Offered
P1	_____	M1		
		M2		
		M3		
		M4		
		M5		
		M6		
		M7		
		M8		
		M9		
P2	_____	M1		
		M2		
		M3		
		M4		
		M5		
		M6		
		M7		
		M8		
		M9		

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Program Name		Measures Delivered through Program		Incentive Mechanism
P3		M1		
		M2		
		M3		
		M4		
		M5		
		M6		
		M7		
		M8		
		M9		
P4		M1		
		M2		
		M3		
		M4		
		M5		
		M6		
		M7		
		M8		
		M9		

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Program Name		Measures Delivered through Program		Incentive Mechanism
P5		M1		
		M2		
		M3		
		M4		
		M5		
		M6		
		M7		
		M8		
		M9		
P6		M1		
		M2		
		M3		
		M4		
		M5		
		M6		
		M7		
		M8		
		M9		

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Program Name		Measures Delivered through Program		Incentive Mechanism
P7		M1		
		M2		
		M3		
		M4		
		M5		
		M6		
		M7		
		M8		
		M9		
P8		M1		
		M2		
		M3		
		M4		
		M5		
		M6		
		M7		
		M8		
		M9		

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[If not listed previously]

Q15. Do you offer energy efficiency education and training programs?

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Q16. Which of your programs are the most successful and most cost effective? and why?

Program:

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Program:

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Program:

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Q17. Which B/C Test is required by regulators (e.g. Utility Test, Total Resource Cost, Ratepayer Impact, Societal Test, California Public Purpose Test, etc) [get description of test]?

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Q18. Do you know of any available Gas DSM technical or achievable potential studies that have been conducted for your service area or State? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not Applicable

Q19. If yes, where can I get copies (preferably electronic copy)?

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Q20. Do you have any data you could share on natural gas energy efficiency measure (full) costs, incremental costs, useful lives, annual therm savings? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not Applicable

Q21. If yes, is there a website where it can be downloaded or could you email it to me? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not Applicable

Q22. Do you have any publicly available program evaluation reports, market assessment and baseline studies, appliance saturation studies? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not Applicable

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Q23. Do you have a forecast of gas avoided costs? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not Applicable

Q24. If yes, is it publicly available?

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not applicable

Q25. Where: \_\_\_\_\_

Q26. Does this forecast of avoided gas costs include avoided gas distribution costs? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not applicable

Q27. Can successful gas DSM programs or energy efficiency information programs avoid gas distribution costs? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not applicable

Q28. If yes, how? \_\_\_\_\_

Q29. Have you presented papers at recent conferences (AESP, CEE, AGA, etc) on your GAS DSM or energy efficiency information programs? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not applicable

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Q30. If yes, can you e-mail a copy of any such papers to me? [In advance of calling, make a note of proceedings obtained in-house to know whether or not we need to ask this question] (check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not applicable

Q31. Do you know of any recent studies conducted that compare natural gas energy savings from gas energy efficiency programs and the implementation costs of Gas DSM programs for gas utilities in North America? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not applicable

Q32. Has your gas company sponsored or participated in any initiatives related to raising energy efficiency standards in building codes in your State? (Check one)

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not applicable

Q33. If YES, can you provide a description of the initiative, and tell me what the results have been to date? \_\_\_\_\_

Q34. To your knowledge, what are some of the reasons that some gas utilities do not offer energy efficiency or DSM programs? (Check all that apply)

- 1. Concern over lost revenues
- 2. Concern over rate impacts
- 3. Concern about difficulty of getting cost recovery for program expenditures
- 4. Concern about difficulty of getting shareholder incentives
- 5. Other (please specify: \_\_\_\_\_)
- 98. Don't know
- 99. Not Applicable

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Q35. How much did your company spend in 2002 on Gas DSM or energy efficiency programs, including energy efficiency information programs, for all states served? \_\_\_\_\_

- 98. Don't know
- 99. Not Applicable

Q36. What were the total annual retail revenues in 2002 for natural gas sales for your company for all states served? \_\_\_\_\_

- 98. Don't know
- 99. Not Applicable

Q37. What were the total annual retail sales in therms in 2002 for your company in all states served? \_\_\_\_\_

- 98. Don't know
- 99. Not Applicable

Q38. What were total annual therms saved in 2002 for all gas DSM and energy efficiency programs (including information/tips programs) combined for all states served? \_\_\_\_\_

- 98. Don't know
- 99. Not Applicable

**Okay, great, that's all! Thank you for helping Questar collect this data.**

Q39. This Committee is willing to share the results of this survey with you. Would you be interested in the survey results?

- 1. Yes
- 2. No
- 98. Don't Know
- 99. Not applicable

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Q40. Are you willing to share your survey responses with other respondents to this survey, so long as your responses are just included in the overall survey results and are not listed separately?

- 1. Yes
- 2. No
- 98. Don't know
- 99. Not applicable

If you have any questions about this survey, you can contact Dick Spellman of GDS Associates at 770-330-8100 ext 154 or at [dick.spellman@gdsassociates.com](mailto:dick.spellman@gdsassociates.com);

or you can call the Project Sponsor, Jeff Burks at the State Of Utah Energy Office.