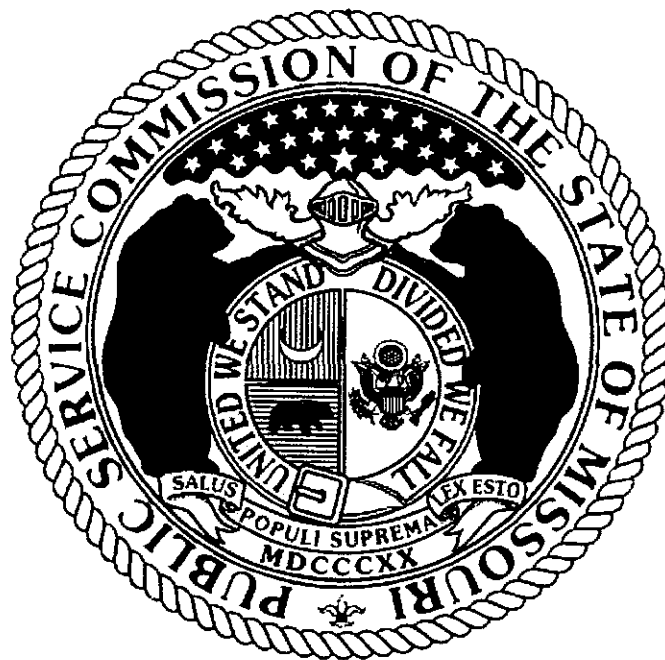


# Missouri Public Service Commission

## Electric & Natural Gas Roundtable Discussion Groups

### Record of Proceedings



## Fixed Bill Programs

January 24, 2003  
Governor Office Building  
Jefferson City, Missouri

MEMORANDUM

TO: Electric & Natural Gas Roundtable Discussion Groups  
FROM: Warren Wood *WW*  
SUBJECT: Record of Proceedings  
DATE: January 31, 2003

Thank you for attending the Commission's Electric and Natural Gas Roundtable session on **Fixed Bill Programs** held in Jefferson City, Missouri on January 24, 2003. As promised, please find attached a bound compilation of the materials presented.

Our desire is to make these meetings as informative, beneficial, and effective as possible. Any ideas or suggestions you may have to help us toward that end are always appreciated. Feel free to contact me at (573) 751-2978 or e-mail me at [warrenwood@psc.state.mo.us](mailto:warrenwood@psc.state.mo.us) with any comments. We look forward to your attendance and active participation at future roundtable meetings.

Attachment

# Table of Contents

## 1. Program Agenda – Fixed Bill Programs

## 2. Presentations

### a) MoPSC Staff Perspective

Warren Wood, Manager, PSC Energy Department

### Fixed Bill Programs

b) Bernie Bilski, President & Chief Executive Officer,  
WeatherWise<sup>SM</sup> USA, Inc.

c) Rand Warsaw, Vice President of Operations,  
WeatherWise<sup>SM</sup> USA, Inc.

d) John Quain, Chairman, Energy & Utility Law Group, Klett Rooney  
Lieber & Schorling & Previously Served as Chairman of  
Pennsylvania Public Utility Commission

### e) Natural Gas Utility Perspective

Rob Hack, Vice-President, Pricing & Regulatory Affairs,  
Missouri Gas Energy

### f) Electric Utility Perspective

Mike Deggendorf, Executive Director of Energy Solutions, Kansas  
City Power and Light Co.

### g) Office of the Public Counsel's Perspective

Doug Micheel, Senior Public Counsel, The Office of the Public  
Counsel

## 3. Attendance List

**1**

# **Fixed Bill Programs**

Electric & Natural Gas Roundtable Discussion Groups

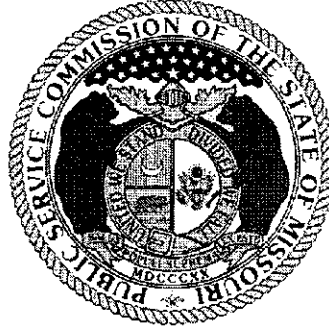
**January 24, 2003 - 1:00 to 4:30**

4<sup>th</sup> Floor Ballroom, Governor Office Building, 200 Madison Street,  
Jefferson City, Missouri

- 12:30      Registration**
- 1:00      Fixed Bill Programs – MoPSC Staff Perspective**  
Warren Wood, Manager, PSC Energy Department
- 1:20      Fixed Bill Programs**  
Bernie Bilski, President & Chief Executive Officer,  
WeatherWise<sup>SM</sup> USA, Inc.
- Rand Warsaw, Vice President of Operations,  
WeatherWise<sup>SM</sup> USA, Inc.
- John Quain, Chairman, Energy & Utility Law Group, Klett  
Rooney Lieber & Schorling & Previously Served as Chairman  
of Pennsylvania Public Utility Commission
- 2:45      Break (15 Minutes)**
- 3:00      Natural Gas Utility Perspective**  
Rob Hack, Vice-President, Pricing & Regulatory Affairs,  
Missouri Gas Energy
- 3:20      Electric Utility Perspective**  
Mike Deggendorf, Executive Director of Energy Solutions,  
Kansas City Power and Light Co.
- 3:40      Office of the Public Counsel's Perspective**  
Doug Micheel, Senior Public Counsel, The Office of the Public  
Counsel
- 4:00      Open Discussion/Question Period for All Participants**
- 4:25      Closing Remarks & Adjourn**

**2.a**

**Missouri Public Service Commission**  
**Electric & Natural Gas Roundtable Discussion Groups**



**Fixed Bill Programs for Natural Gas & Electric Utilities**

January 24, 2003 – 1:00 to 4:30

4<sup>th</sup> Floor Ballroom, Governor Office Building, Jefferson City, MO

**Fixed Bill Programs Roundtable Agenda**

**1:00 Fixed Bill Programs – MoPSC Staff Perspective**  
Warren Wood, Manager, PSC Energy Department

**1:20 Fixed Bill Programs**  
Bernie Bilski, President & Chief Executive Officer,  
WeatherWise<sup>SM</sup> USA, Inc.

Rand Warsaw, Vice President of Operations,  
WeatherWise<sup>SM</sup> USA, Inc.

John Quain, Chairman, Energy & Utility Law Group,  
Klett Rooney Lieber & Schorling & Previously Served as  
Chairman of Pennsylvania Public Utility Commission

**2:45 Break (15 Minutes)**

### **Fixed Bill Programs Roundtable Agenda - continued**

**3:00 Natural Gas Utility Perspective**

Rob Hack, Vice-President, Pricing & Regulatory Affairs,  
Missouri Gas Energy

**3:20 Electric Utility Perspective**

Mike Deggendorf, Executive Director of Energy Solutions,  
Kansas City Power and Light Co.

**3:40 Office of the Public Counsel's Perspective**

Doug Micheel, Senior Public Counsel,  
The Office of the Public Counsel

**4:00 Open Discussion/Question Period for All Participants**

**4:25 Closing Remarks & Adjourn**

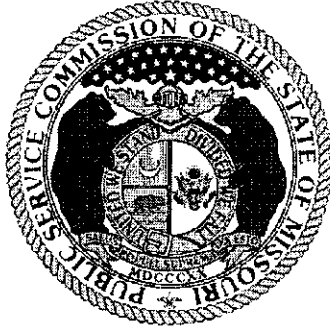
### **In-House Training Introduction**

The purpose of this session is to provide you information regarding fixed bill programs for natural gas and electric utilities in Missouri. We will discuss the underlying fundamentals of this topic as well as the approach or approaches used by Staff. We will also discuss other methodologies that the Staff has encountered related to this topic. The basic course material does not contain any reference to a current case before the Commission or the specifics of a current issue pending Commission resolution. The basic material is based on closed cases or hypothetical examples.

This session is intended to provide each of you every opportunity to acquire as much information on fixed bill programs for natural gas and electric utilities in Missouri as you desire. We ask that no one ask any question or make any comment about current cases or issues pending before the Commission while any Commissioner or Regulatory Law Judge is present. Please note these questions and comments. They will be addressed in the final portion of this session after the Commissioners and Judges are no longer present.



**Missouri Public Service Commission  
Electric & Natural Gas Roundtable Discussion Groups**



**Fixed Bill Programs for Natural Gas & Electric Utilities –  
MoPSC Staff Perspective**

**Fixed Bill Programs for Natural Gas & Electric Utilities**

**1. Factors in Bill Volatility**

- a. Fluctuations in Energy Usage
- b. Natural Gas “Issues”
- c. Fluctuations in Rates for Energy

**2. Impacts of Bill Volatility**

- a. Budgeting Problems
- b. Affordability Problems
- c. Bad Press & Increased Bad Debt

**3. How to Eliminate Bill Volatility**

- a. How to Assess Usage
- b. How to Assess Rates
- c. Limitations

**4. MoPSC Staff Concerns**

- a. Customer Segregation vs. Subsidies
- b. Not a Source of Increased Revenues Outside of GSIP

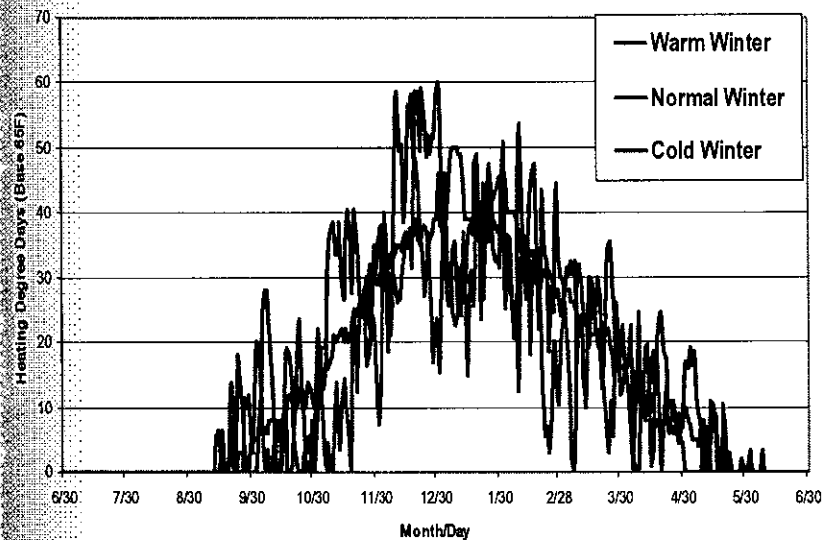
**1.a) Factors in Bill Volatility – Fluctuations in Energy Usage:**

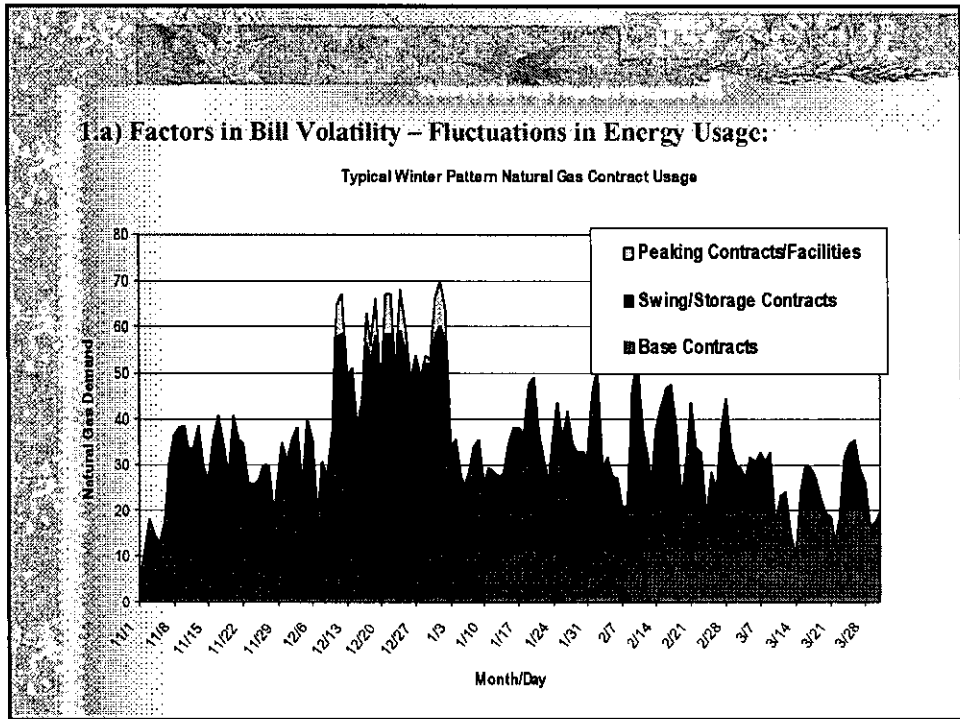
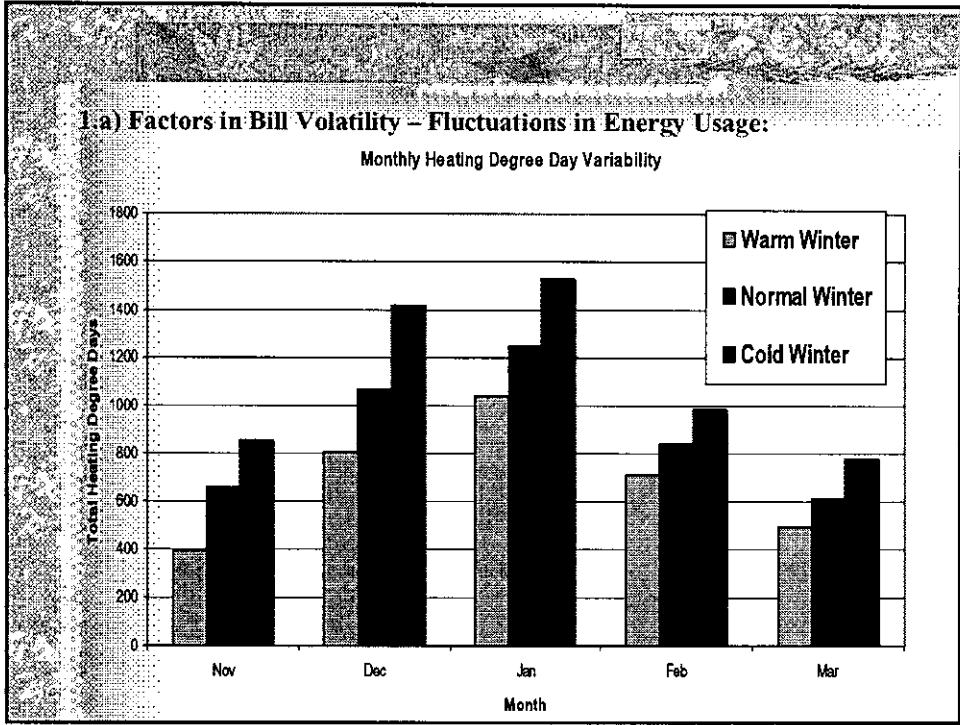
Weather in Missouri is constantly changing. I have heard people say “if you don’t like the weather, stick around it will change” and it is true.

Unfortunately, the cold temperatures of our winters and the hot temperatures and high humidity of our summers can be very extreme. These extremes directly impact energy usage for air conditioning in the summer and heating in the winter. It is simple thermodynamics, all other things being equal, a higher temperature differential between the inside and outside of the home will require a greater energy input to maintain. The following slides show some of the winter extremes that Missouri has experienced. Our summer extremes can be just as volatile.

**1.a) Factors in Bill Volatility – Fluctuations in Energy Usage:**

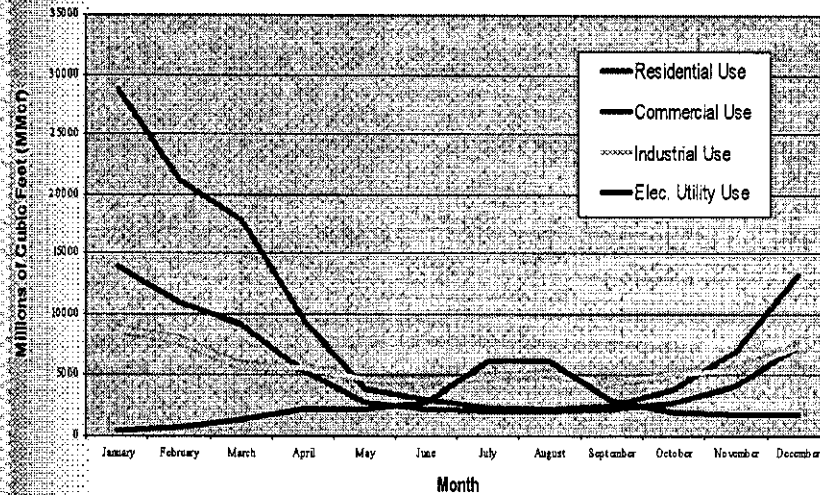
Winter Scenarios





### 1.a) Factors in Bill Volatility – Fluctuations in Energy Usage:

Natural Gas Use by Customer Class - Monthly Totals (2001)



### 1.b) Factors in Bill Volatility – Natural Gas Pricing:

Gas supplies can be priced in a number of different ways:

Prices at "Hubs" (i.e. "Henry Hub") or "Baskets" of Hubs

Prices per Publications (i.e. FERC Daily)

Futures Prices (New York Mercantile Exchange – NYMEX)

Fixed Price Contracts – Specified Deliveries and Prices

Marketer Arranged Purchases – Widely Varying Terms & Conditions

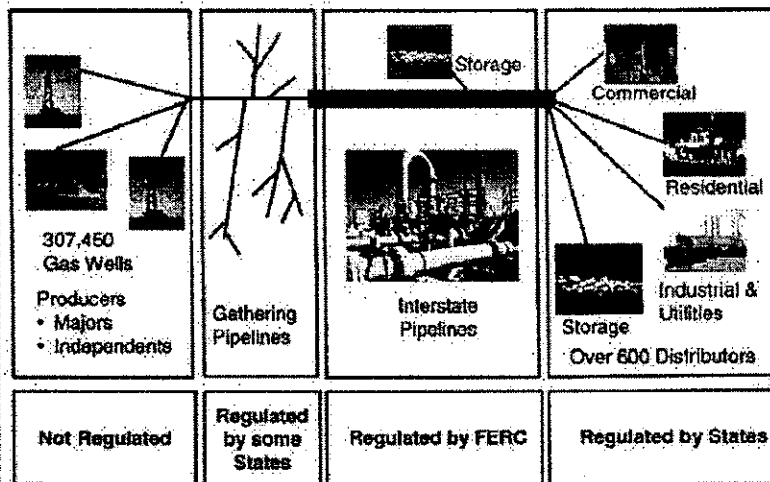
Local Distribution Companies (LDC) often have at least a portion of their supply contracts tied to "first of month" closing prices determined by the NYMEX market closing date for the following month and/or to daily spot markets. Dramatic fluctuations in market prices can dramatically effect customer rates through these types of contracts.

**1.b) Factors in Bill Volatility – Natural Gas Regulation:**

Natural gas is a deregulated commodity. Natural gas used to be regulated by the federal government but was deregulated through a number of acts and court decisions. One of the first changes moving toward wellhead deregulation of prices was in 1978 as part of the Natural Gas Policy Act. This act was followed by the Natural Gas Wellhead Decontrol Act in 1989. On January 1, 1993 all remaining price regulation was removed from wellhead gas supplies. Since that time markets have developed that provide for a diversity of supply options and a liquid market for natural gas commodities and futures contracts as well as hedging instruments. At this time daily markets for natural gas are monitored by thousands of market participants and daily prices are determined in a largely supply and demand driven market. As with other markets, the natural gas market can be sensitive to rumors and speculation. Weather forecast that indicate that a hurricane may hit the gulf of Mexico, unrest in the Middle East, or an economic forecast of industrial growth can all alter the market, sometimes significantly, on short notice.

**1.b) Factors in Bill Volatility:**

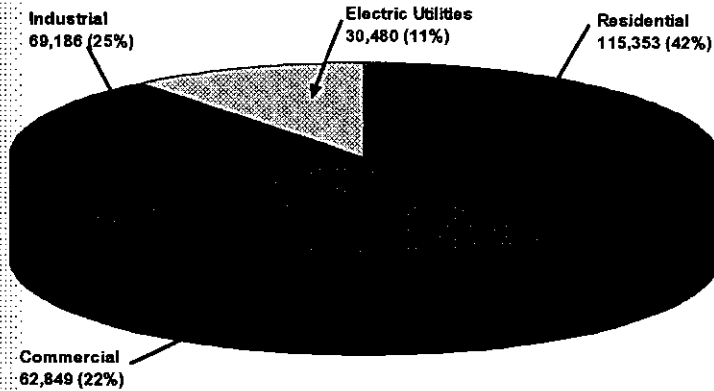
**The Natural Gas Industry**



Source: Interstate Natural Gas Association of America (INGAA)

**1.b) Factors in Bill Volatility:**

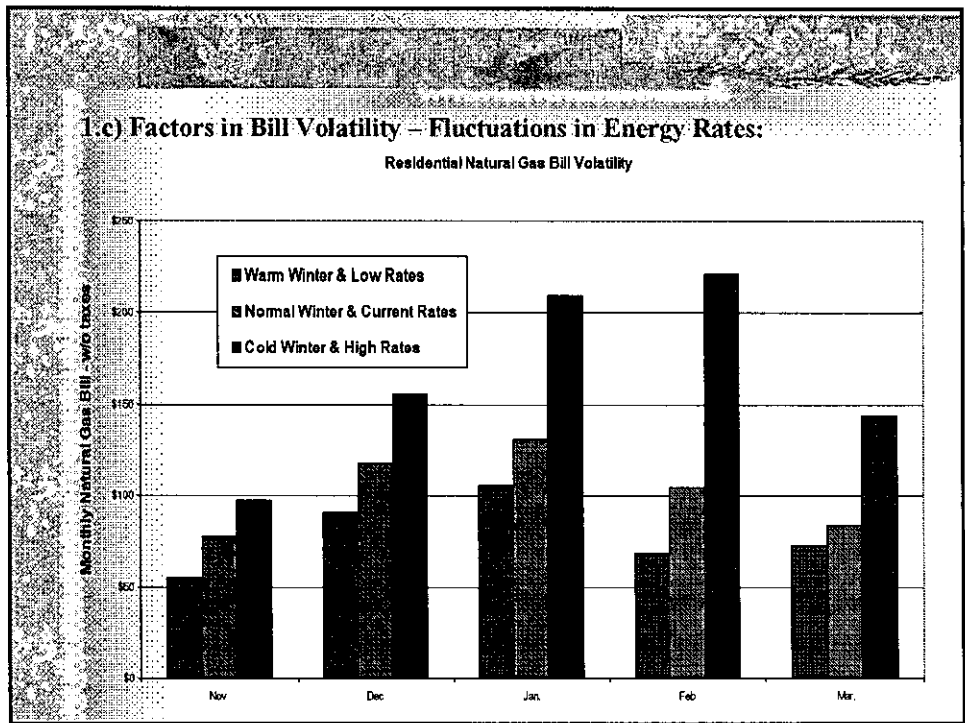
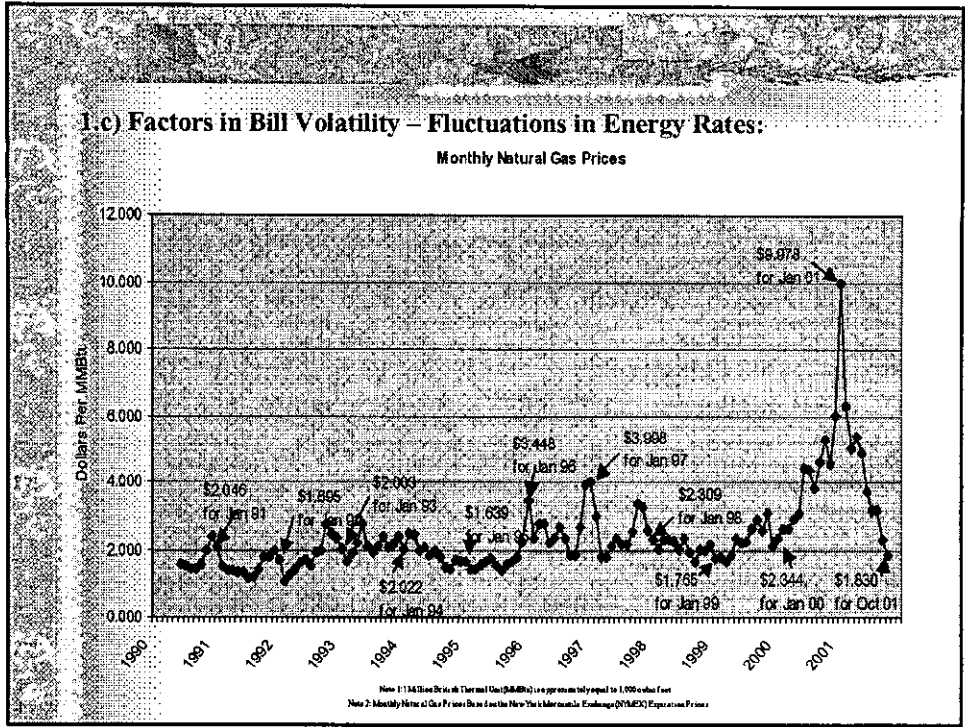
**Missouri Natural Gas Usage by Customer Group - 2000 (MMcf)**

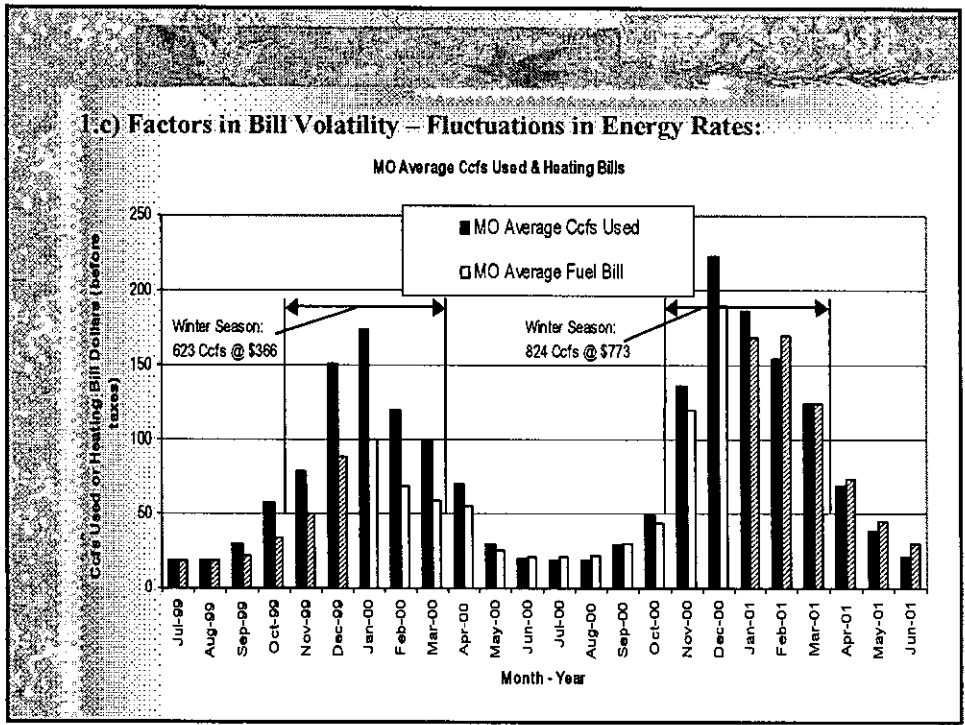
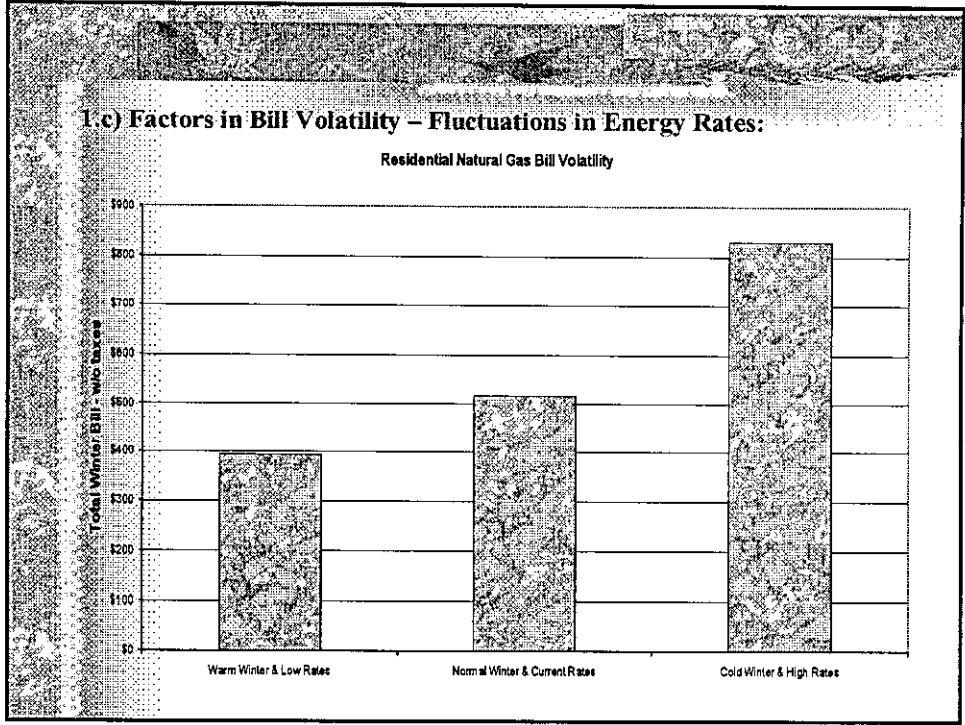


**1.c) Factors in Bill Volatility – Fluctuations in Energy Rates:**

Energy rate volatility is probably best demonstrated in the natural gas market. The winter of 2000-01, and this winter, have shown just how sensitive natural gas prices are to market reports on any related supply and/or demand issues.

Unfortunately, the factors that often move natural gas prices up are sometimes also the factors that increase usage (cold weather → increased demand → increased per unit price). This results in a “double whammy” on customers of higher usage and higher per unit prices, these factors put together can dramatically increase customer energy bills. Some customers cannot afford these higher bills.







### **2.a) Impacts of Bill Volatility – Budgeting Problems:**

From some of the previous slides, it is obvious that customers face dramatically fluctuating energy bills. The peaks in these bills are inconvenient. For those customers who have their bill amounts automatically deducted from their bank account, these bill fluctuations mean that additional effort is required each month to track the actual deduction. For those customers who are “just making it” from month-to-month, these peaks represent a genuine financial hardship and can force decisions between paying their energy bill, eating appropriately, and/or medications. Budget billing programs are helpful to these customers but some customers do not like the true-up balances that can occur. Also, some customers get into situations where they cannot make their payments when true-up balances are imposed.

### **2.b) Impacts of Bill Volatility – Affordability Problems:**

The previous slide describes budgeting problems associated with spikes in energy bills. Unfortunately, some customers simply cannot afford to pay what they owe when these spikes occur. These bill spikes, and the resulting arrearage, can be the first step toward being disconnected from utility service. Not surprisingly, loss of utility service contributes to homelessness, forced mobility, low education attainment, increased foster care placement, and increased risk for pneumonia and malnutrition. These spikes also contribute to bad debt that is eventually charged to all ratepayers.

In Missouri over 250,000 households (12.5% of population) are at or below the poverty level income. During the winter of 2000-01 these customers paid over 25% of their incomes to pay energy bills.

### 2.c) Impacts of Bill Volatility – Bad Press & Increased Bad Debt:

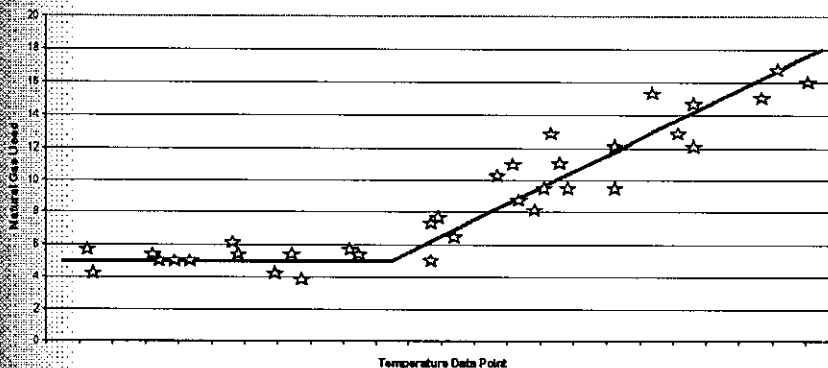
Following the 2000-01 winter, the MoPSC created a Natural Gas Commodity Price Task Force. This group held a number of working meetings and public hearings to collect information on how the winter of 2000-01 impacted customers. A number of recommendations were made by this group. One recommendation that appeared in several forms in the report of this group was that upward price volatility must be better managed. The dramatic swings in customer bills were simply not acceptable to a large number of customers.

In the fall of 2001 (following the 2000-01 winter), regulated natural gas utilities in Missouri had disconnected almost 29,000 homes owing over \$19 million.

### 3.a) How to Eliminate Bill Volatility – How to Assess Usage:

Need to have enough weather and usage history on customer at particular residence to assess base and weather sensitive usage (*at least 3 months of winter weather and 3 months of summer weather*). You then need to assess usage variability as determined by warm, cold, and normal winter scenarios.

Natural Gas Usage vs. Temperature



### **3.b) How to Eliminate Bill Volatility – How to Assess Rates:**

Fixed bill programs are typically supported by fixed price gas supply contract(s) held by the local distribution company (LDC). These contracts could involve some fixed volume at a stated unit price and a swing volume with a higher fixed or capped unit price. This capability might also be accomplished in one full requirements fixed price contract. The fixed/swing volume percentages would be determined by uncertainty in customer numbers and usage per customer.

The Actual Cost Adjustment (ACA) charge does complicate the fixed bill program somewhat. First year customers of the fixed bill program should pay or receive the ACA charge for one year. Customers who have participated in the fixed bill program should be exempt from the ACA charge for the first year they go back to traditional service. The practicality of how to accomplish this needs to be determined.

### **3.c) How to Eliminate Bill Volatility – Limitations:**

Fixed bill programs do carry some risk for the entity “backing up” the fixed bill guarantee. Fixed bill programs typically include some conditions under which the customer can be removed from the utility’s fixed bill program. These conditions can include:

1. Failure to pay bills in a timely manner.
2. Customer moving from residence where fixed bill amount was established.
3. Customer significantly altering their usage pattern (adjusted for weather). The reasons for this change in usage pattern can include changes to furnace/water heater settings, changes in living space being heated or cooled, changes in number of people living in residence, and/or changes in appliances.

**Customers must be informed that they may not save money!!!**

**4.a) MoPSC Staff Concerns – Customer Segregation & Subsidies:**

The MoPSC Staff do have some concerns with fixed bill programs regarding who participates in them and who pays for them.

Staff believes that those customers who choose to participate in the program should pay for the program. This is easy enough to achieve through the “program fee” that customers who choose to participate in this program pay. One of the difficult things to address is the variability in number of participating customers and how the gas contracts that serve them are structured to accommodate the uncertainty in the customer numbers and uncertainty in usage per customer as determined by future weather. Mechanisms may need to be developed to carry reasonable cost overruns or savings into subsequent years.

**4.b) MoPSC Staff Concerns – Not a Source of Increased Revenues Outside of a GSIP:**

Staff does not believe that since these customers are choosing to participate in this program they are somehow exempt from protection under “just and reasonable rates”. Fixed bill programs are viewed as an option that an LDC can offer to their customers who do not wish to be exposed to the volatility of the traditional PGA mechanism. Staff does not see these programs as a significant increase in business risk or effort and therefore does not believe that a significant increase in revenues, beyond what is appropriate to cover any additional costs, from the customers who choose to participate in the fixed bill program is appropriate.

It is recognized that fixed bill programs may be managed through a third party (not the LDC). These parties typically assess an additional charge for their efforts and risk, including advertising. The Staff is not opposed to a reasonable charge to provide this service.

**Contact Information:**

**Warren Wood**

**MO Public Service Commission**

**PO Box 360**

**Jefferson City, MO 65102**

**Phone: (573) 751-2978**

**Cell: (573) 864-1213**

**Fax: (573) 526-0145**

**E-mail: [warrenwood@psc.state.mo.us](mailto:warrenwood@psc.state.mo.us)**

**2.b**

*The WeatherProof Bill<sup>SM</sup> Program*

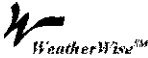
*WeatherWise USA, Inc.  
One North Shore Center, Suite 230  
12 Federal Street  
Pittsburgh, PA 15212  
1-888-373-9473  
1-412-320-4050 Fax*

*WeatherWise<sup>SM</sup>  
... simply predictable*

*Proprietary and Confidential*

<b>Index</b>	
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Overview of Fixed-Bill Program	2-12
Important Program Aspects:	
– Gas procurement	12-16
– Communication and enrollment	17-19
– Fixed-Bill Fee	20-23

2



## WeatherWise USA

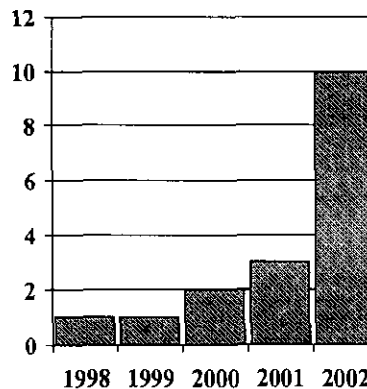
- Provides services that reduce weather-related and other financial risk for energy consumers
- Established in October 1996
- Privately owned corporation with offices in Pittsburgh, Chicago and Denver
- Helps utilities offer the WeatherProof Bill to their customers

3



## Number of States with Approved Fixed-Bill Programs

- Utility programs have been approved by Public Service Commissions in ten states.
- Filings are expected soon in other states.
- Regulators typically have a favorable view and strong interest in the program.
- Kansas, Georgia, Minnesota, North Carolina, South Carolina, Wisconsin, Indiana, Florida, Alabama and Oklahoma.



4





## The Problem - Volatile Energy Bills

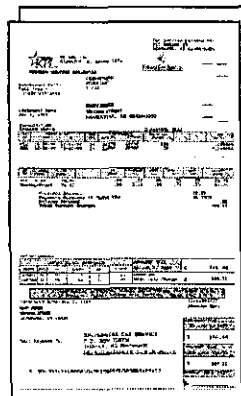
- Research shows that almost one half of all customers are dissatisfied with their utility bills
- More than 70% of dissatisfied customers want predictability
- Volatile energy bills are a major source of customer dissatisfaction

5



## The WeatherProof Bill

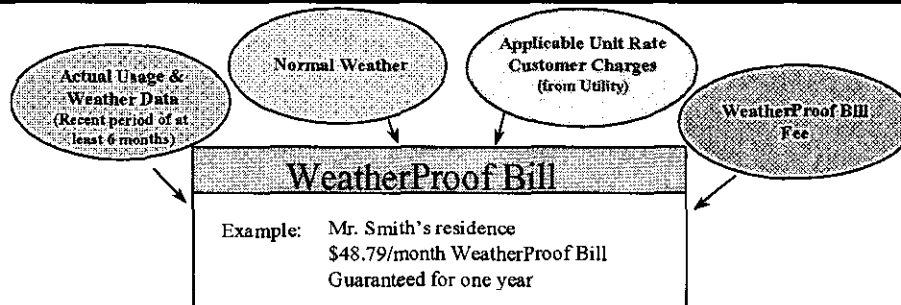
- A fixed, annual, guaranteed energy bill (12 equal monthly payments)
- Like a budget bill but with no true-up
- Protects the consumer from energy price and weather changes
- Residential and small commercial customers



6

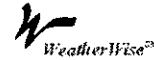


## The WeatherProof Bill How is it Calculated?



- One year term
- Early exit permitted for relocation or unusual circumstances

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## Consumer Benefits

- Convenience and predictability
- Increases satisfaction
- Increases sense of control over utility bills
- Makes it easier to budget and pay energy bills
- Increases the convenience of automatic electronic payment

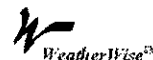
8



## Consumer Interest and Satisfaction

Interest	Satisfaction
<ul style="list-style-type: none"> <li>• Research shows that approximately 50% of customers are interested in a WeatherProof Bill</li> </ul>	<ul style="list-style-type: none"> <li>• Based on nationwide survey, almost 50% of customers are dissatisfied with utility bills</li> <li>• More than 70% of this segment are interested in WeatherProof Bill</li> </ul>
<ul style="list-style-type: none"> <li>• Actual enrollment has exceeded 9% in the first year</li> </ul>	<ul style="list-style-type: none"> <li>• 88% of WeatherProof Bill customers are satisfied</li> <li>• 78% would recommend to friends</li> <li>• 88% are likely to renew</li> </ul>
<ul style="list-style-type: none"> <li>• Actual annual renewal rates in excess of 90% of eligible customers</li> </ul>	<ul style="list-style-type: none"> <li>• Actual annual renewal rates in excess of 90% of eligible customers</li> </ul>

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## Key Regulatory Considerations

### WeatherProof Bill (Fixed Bill)

- Voluntary, choice program
- Potential for significantly increasing customer satisfaction
- Superior way of addressing concerns of consumers regarding volatile energy bills
- Costs of program are recovered only from participating customers
- Communications are designed to encourage informed decision making
- Consistent with general regulatory trend toward reducing volatility and providing choice

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## Important Program Aspects

### Important Program Aspects:

- |                                |       |
|--------------------------------|-------|
| ➤ Gas procurement              | 12-16 |
| ➤ Communication and enrollment | 17-19 |
| ➤ Fixed-Bill Fee               | 20-23 |

## Gas Procurement Method

- Cost of program is recovered only from participating customers
  - Procurement method
  - Program fee
- Company locks in unit price of supply for fixed-bill program and bears the risk of cost overruns
- Details may vary by company

## Gas Procurement Method

### Summary

- Company purchases fixed-price fixed-volume supply to cover minimum volume and purchases fixed-price swing-volume supply/options to cover volume range.
- Over the life of the program, the company is at risk for cost overruns but savings are reflected in fixed-bill quotes in subsequent years.

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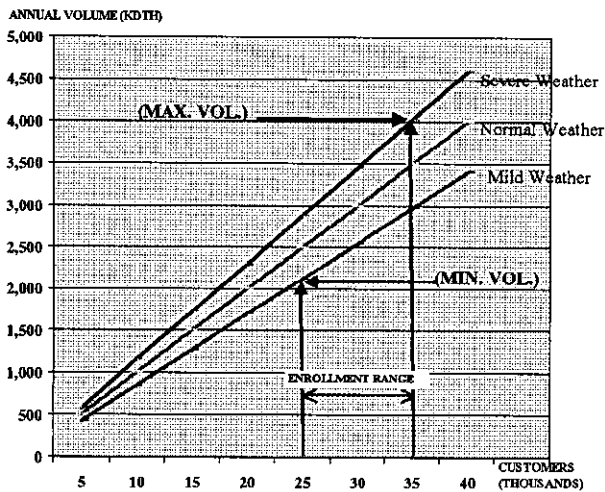
## Fixed-Bill Volume Range Reflects Weather and Enrollment Uncertainty

<b>AVERAGE ANNUAL CONSUMPTION PER CUSTOMER</b>		
MILD WEATHER	85 DTH	
NORMAL WEATHER	100 DTH	
SEVERE WEATHER	115 DTH	
<b>PARTICIPATING CUSTOMERS</b>		
MINIMUM ENROLLMENT	25,000	
MAXIMUM ENROLLMENT ( ENROLLMENT CAP)	35,000	

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## Volume Range

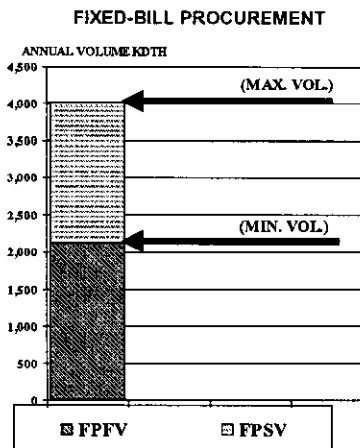


15



## Prices Are Hedged to Cover the Volume Range

- Company purchases fixed-price swing-volume supply/options (FPSV) to cover the volume range.
- Company purchases fixed-price fixed-volume supply (FPFV) based on the minimum volume.



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## Communication and Enrollment Process

- Objectives of Commission, Utility and WeatherWise are consistent
- Objectives:
  - Encourage informed decision making
  - Increase customer satisfaction
  - Provide consumer safeguards and convenience
- Informed decision making enhances customer satisfaction which is essential to the long term success of the program
- Existing WeatherWise programs meet all objectives

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## Communication and Enrollment Process

- Communication content and materials
  - Reviewed and approved by Staff
  - Service lends itself to simple, clear and concise explanation
  - Focus on predictability and convenience
  - Clearly state that the customer may or may not save money
  - Customer is informed of the fee amount and of all other terms and conditions
  - Overly complicated communication materials can mislead customers and cause confusion

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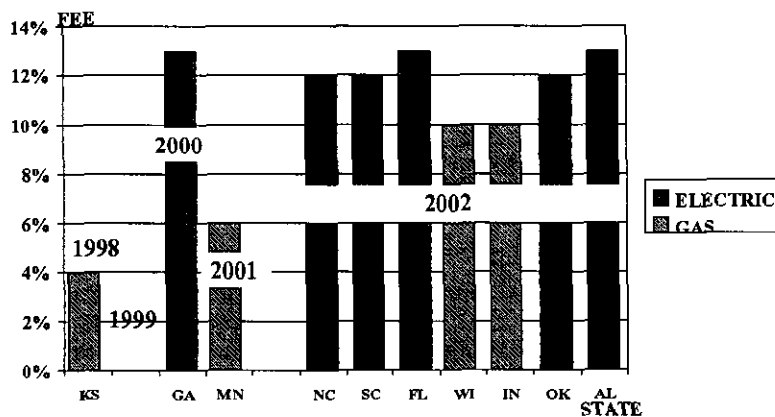
## Communication and Enrollment Process

- Customer safeguards:
  - Customers can exit the program up to the due date of their first fixed-bill with a simple phone call to a toll-free number
  - All telephonic enrollments are recorded and retained for 13 months. Phone representatives are scripted and receive hourly compensation
  - All enrollees receive a welcome letter shortly after enrolling which reiterates the quote, start month, terms and conditions and the toll-free phone number to opt out
  - After the first year, customers have an extensive opt-out period (usually two to three months) after receiving their new quote amount

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## Approved Fixed-Bill Fees (By State and Year)

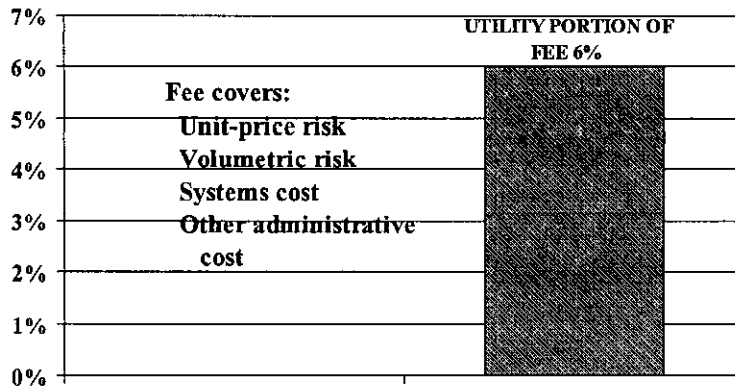


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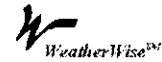




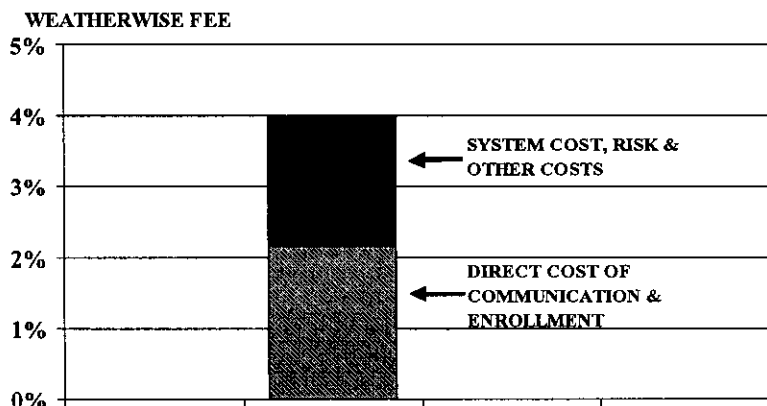
## Fixed-Bill Fee Utility Portion of Fee



21



## Fixed-Bill Fees (WeatherWise Fee)



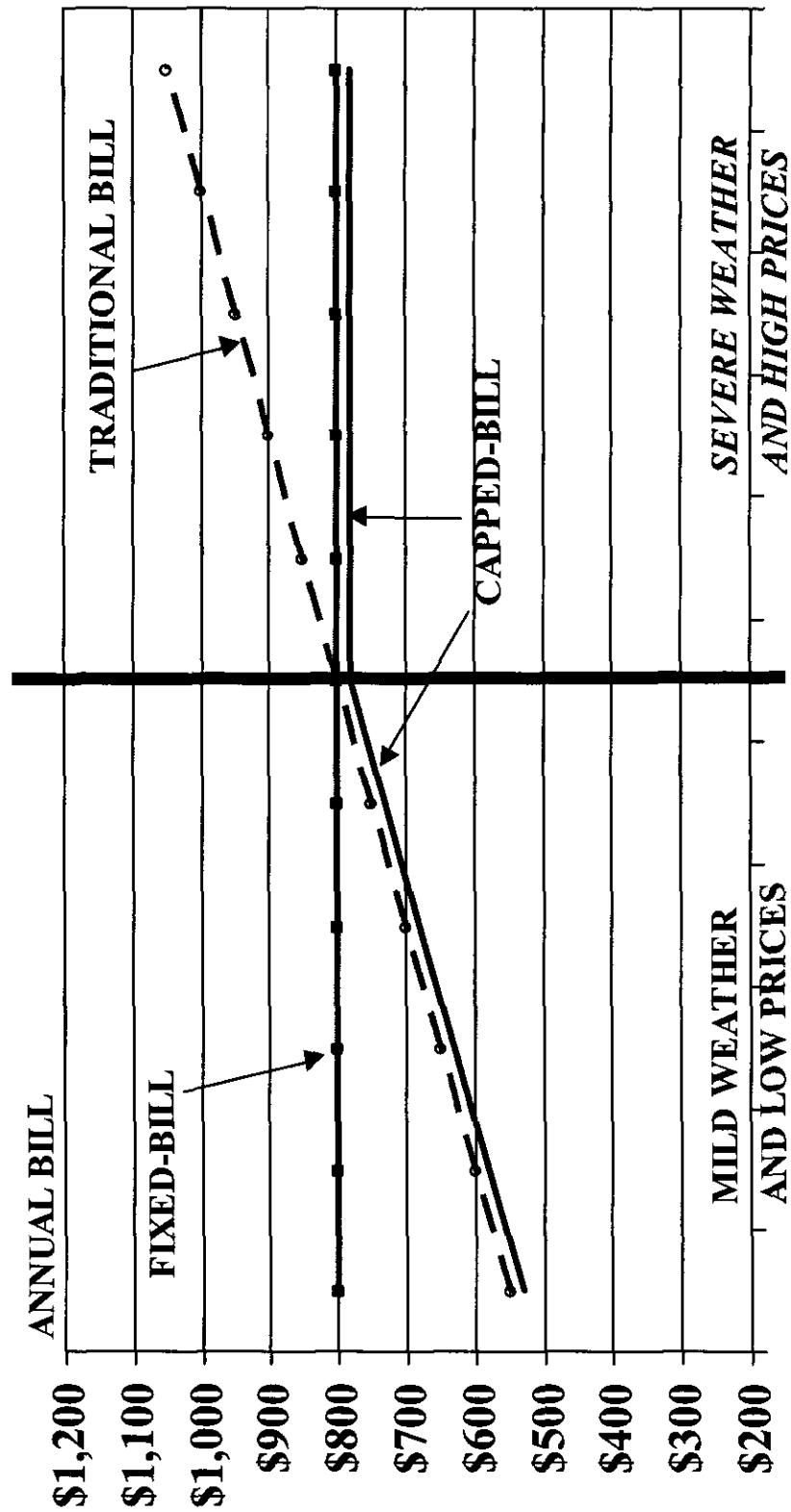
22



## *Capped-Bill*

- New service for low-income customers who are having a difficult time paying energy bills
- Participating customers:
  - are protected from increases due to rising prices and severe weather but benefit from falling prices, mild weather and increased efficiency
  - pay no more than a capped amount equal to fixed-bill without fee for a twelve month period
  - receive a refund if costs are lower due to mild weather, falling prices or increased efficiency
- Other customers benefit from a reduction in arrearage and collection related costs

# *Capped-Bill Compared to Fixed-Bill and Traditional Bill*



## *Capped-Bill*

- Requires a funding source to cover the cost of price and weather protection and other program cost
- It is expected that funding costs will be covered by the reduction in arrearage and collection related cost
- WeatherWise is looking for an opportunity to test the concept and evaluate the results of a pilot

**2.c**



## WeatherProof Bill Calculations

---

WeatherWise USA Inc



### WeatherWise Calculation

- WeatherWise has invested millions of dollars in an integrated framework (systems development, methods and model accuracy improvements)
- The calculation is not magic, it is a normalization based on a highly developed model rather than OLS (ordinary least squares) regression
- The model prediction is always equal or better than OLS regression
  - OLS regression is one of many calculations
  - Best calculation is chosen automatically

2



## WeatherWise Calculation

- The system was designed to be highly accurate using an unbiased method for mass processing of quotes
- The system provides consistent quoting and accounting
- The model was chosen to work well with automated data cleaning methods

3



## WeatherWise

- WeatherWise has a highly trained, dedicated staff who focus on this product
- WeatherWise models are exceptionally accurate
- WeatherWise accounting is integrated with the quoting models

4



## What is the quote calculation

- Clean Utility Data
  - Overlapping dates
  - Billing corrections (for over/under, bad meter reads, cancel-rebills)
  - Duplicates
- Take historic usage and match with historic temperature information
  - National Weather Service
  - Appropriate station
  - Matched per consumer

5

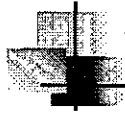


## What is the quote calculation

- Build a mathematical consumption model for each consumer
  - Weather use
  - Base use
  - Remove effects of bad reads or estimates
  - Remove outliers through inspection and automation
  - Model selection on best SSE
    - 16 models gas
    - 5000 models electric

6





## What is the quote calculation

- Accept or reject consumer for the product
  - Rejection is based on low Rsquare (square of the correlation between modeled points and historic usage)
- Produce 365 days (sometimes 366) of normal consumption for each accepted consumer
  - Run model for each day of historic weather period rather than using average weather
- Group the consumptions into the forward looking meter periods for that consumer
  - Result is 12 monthly normalized consumptions

7

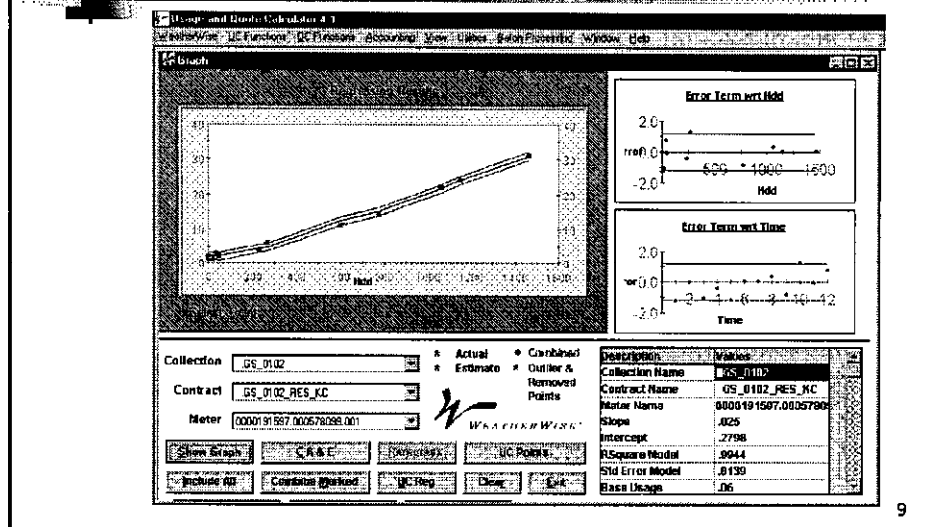


## What is the quote calculation

- Take the 12 consumptions and produce 12 different dollar amounts
  - Tariff rates
  - Commodity charge
  - Taxes
  - Fee
- Produce monthly flat bill
  - Sum and divide by 12
  - Apply time value of money, if applicable

8

## Actual system model generation



9

## WeatherWise

- WeatherWise QA on the quotes is extensive
  - Data cleaning
  - Systems and model testing
  - Quoting and accounting consistency
    - Models
    - Methods
  - Hand calculations to verify systems integrity
- WeatherWise systems are secure
  - Consumer data
  - Quote integrity
  - Accounting records

10

## WeatherWise QA checklist

The image displays eight small thumbnail images arranged in a 2x4 grid, representing pages from a WeatherWise QA checklist. Each thumbnail shows a page with various tables, text, and checkboxes, likely representing different sections of the audit process. The thumbnails are arranged in two rows and four columns. The bottom right corner of the grid contains the number 11.

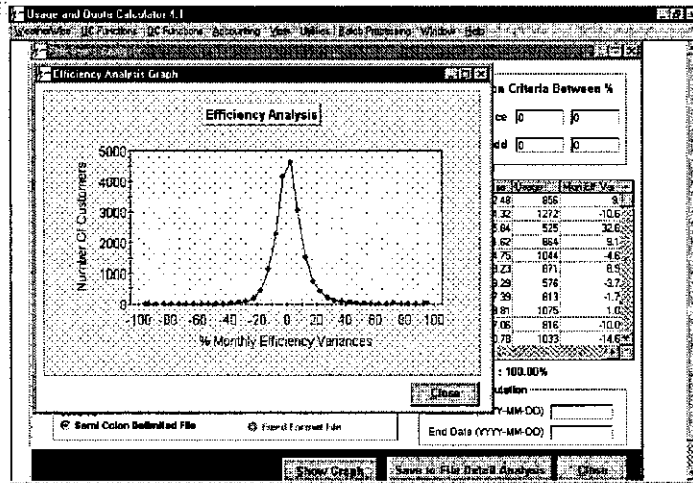
11

## WeatherWise

- WeatherWise accounting and behavioral analysis are consistent with the quoting
  - Provides an audit trail
- WeatherWise accounting and behavioral analysis have exceptional accuracy
  - Behavior analysis of consumers
  - Weather variances
  - Efficiency variances

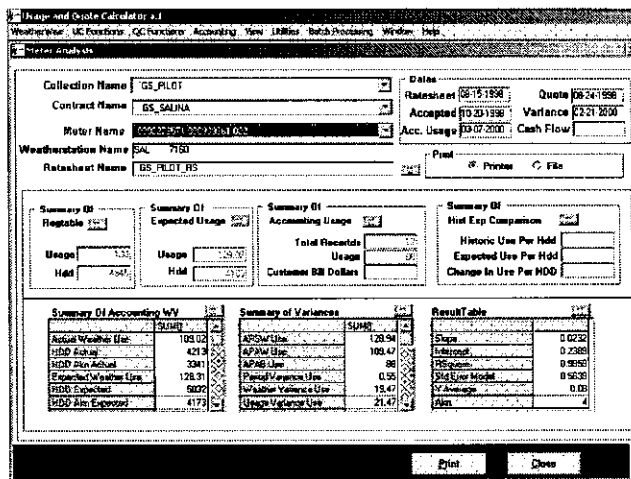
12

## Actual system behavior analysis



13

## Actual system accepted consumer analysis (at close of year)



14

## Actual system consumer details

The screenshot displays a software window titled 'Actual system consumer details'. It contains the following information:

- Collection Name: GS\_PILOT
- Contract Name: GS\_SAL...
- Meter Name: 0000278271100000901002

End Date	LAPS Use	LAPS Use	LAPS Use	Peak/Variable Use	Waste/Variable Use	Load/Variable Use	SPS Use
12-28-1998	24.56	19.83	17	0	4.87	2.89	
01-27-1999	25.42	24.12	22	0	1.2	2.12	
02-25-1999	21.89	19.84	14	0	0.06	1.84	
03-25-1999	14.97	15.3	13	0	0.36	2.3	
04-23-1999	8.12	7.21	5	0	0.3	2.21	
05-25-1999	4.06	3.31	3	0	0.77	0.31	
06-24-1999	2.71	2.69	0	0	0.01	0.69	

Buttons: Print, OK, Done, Close

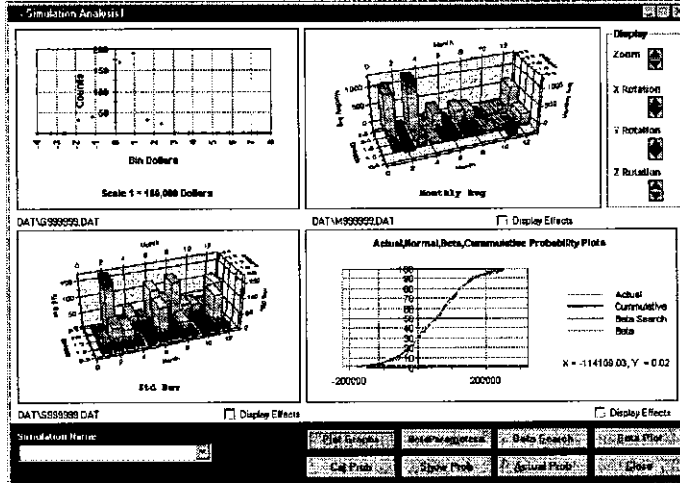
15

## WeatherWise

- WeatherWise risk management system provides
  - Energy purchasing models
  - Risk management models
- Risk management systems enable WeatherWise to economically handle various risks components

16

# WeatherWise Risk Management



# Sample Gas Purchasing Tables

Sample Gas Purchasing Table

	Customers			
	Minimum	Maximum	Firm	Swing
November, 2001	88 2.88	88 2.88	88 2.88	88 2.88
December, 2001	88 2.88	88 2.88	88 2.88	88 2.88
January, 2001	88 2.88	88 2.88	88 2.88	88 2.88
February, 2001	88 2.88	88 2.88	88 2.88	88 2.88
March, 2001	88 2.88	88 2.88	88 2.88	88 2.88
April, 2001	88 2.88	88 2.88	88 2.88	88 2.88
May, 2001	88 2.88	88 2.88	88 2.88	88 2.88
June, 2001	88 2.88	88 2.88	88 2.88	88 2.88
July, 2001	88 2.88	88 2.88	88 2.88	88 2.88
August, 2001	88 2.88	88 2.88	88 2.88	88 2.88
September, 2001	88 2.88	88 2.88	88 2.88	88 2.88
October, 2001	88 2.88	88 2.88	88 2.88	88 2.88

Sample Daily Consumption Estimate for "WPR CONSUMERS (MCF)"  
 Note (this table is a guide for gas purchasing. It is intended to be used daily for gas usage of approximately one month.

HOD	Est	HOD	Est	HOD	Est
0	25	50	75	75	100
1	26	51	76	76	100
2	27	52	77	77	100
3	28	53	78	78	100
4	29	54	79	79	100
5	30	55	80	80	100
6	31	56	81	81	100
7	32	57	82	82	100
8	33	58	83	83	100
9	34	59	84	84	100
10	35	60	85	85	100
11	36	61	86	86	100
12	37	62	87	87	100
13	38	63	88	88	100
14	39	64	89	89	100
15	40	65	90	90	100
16	41	66	91	91	100
17	42	67	92	92	100
18	43	68	93	93	100
19	44	69	94	94	100
20	45	70	95	95	100
21	46	71	96	96	100
22	47	72	97	97	100
23	48	73	98	98	100
24	49	74	99	99	100



## Without an integrated framework

---

- there can be models for quoting
- there can be accounting for a program
- there can be risk management
- there can be behavioral analysis of consumers
- there can be expertise in systems use
- there can be QA

and

**there can be problems!**

**2.d**

**Comments Not  
Provided**



**2.e**

*Roundtable on Fixed Bill Programs-*  
*1/24/03*  
*A Gas Company's Perspective*

**Rob Hack—Vice President, Pricing &  
Regulatory Affairs—Missouri Gas Energy**

*Roundtable on Fixed Bill Programs - A Gas  
Company's Perspective*

Why might a gas company be interested in exploring implementation of a fixed bill option?

- Opportunity to increase customer satisfaction
- Opportunity to increase shareholder satisfaction

Why might a gas company believe a fixed bill option will increase customer satisfaction?

- Service diversity
- Customer control
- Bill volatility is a customer hot button

Why might a gas company believe a fixed bill option will increase shareholder satisfaction?

- Added revenue streams and earnings
- Improved business climate
- Reduced customer complaints

*Roundtable on Fixed Bill Programs - A Gas  
Company's Perspective*

**Why has a fixed bill option not been implemented in Missouri to date?**

Resources  
Regulatory Environment  
Risks

**Other issues**

Is the fixed bill option truly a regulated utility service?  
Treatment of revenues, at inception and into the future?  
The ability of a company to cease the offering in the future

**Next steps**

Collaboration and communication  
Establish clear rules of the road

**2.f**

## Fixed Bill: *Convenience & Predictability*

Fixed Bill Options for Retail Electric Customers  
January 24, 2003

Presented by:  
Michael Deggendorf  
Executive Director, Energy Solutions  
Kansas City Power & Light

 Kansas City Power & Light

## An Electric Utility's Perspective

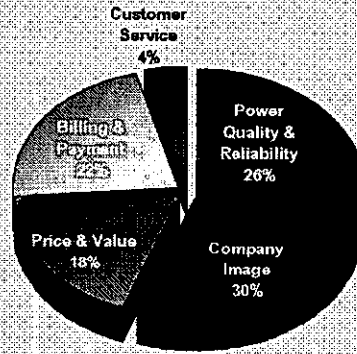
*A weather normalized bill option would  
enhance a portfolio of pricing options that  
customers want and will pay for.*

*Costs and premiums must be imbedded in  
the price of the product.*

 Kansas City Power & Light

# Pricing Options Enhance Customer Satisfaction

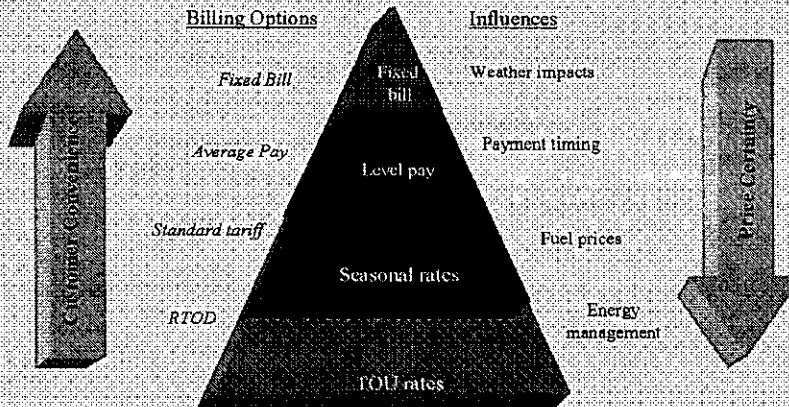
*"availability of pricing options from your utility"*



Component weights from J. D. Power & Assoc. study, 2002.

Kansas City Power & Light

# A Weather Normalized Bill Is a Rational Addition to the Risk Tolerance Pricing Portfolio



Kansas City Power & Light

## Customers Have Indicated an Interest in Such a Program

<i>Question: How interested would you be in a "Guaranteed Bill" plan?</i>	<i>Responses</i>	<i>Percent</i>
Yes, I am definitely interested.	280	20%
I am somewhat interested.	219	16%
I might be interested, but I would need to find out more.	360	26%
Probably not interested.	536	38%

Survey source: Internet survey of KCP&L customers.  
Survey period: Oct. 10 – Nov. 6, 2002.  
Response rate: 38%.

 Kansas City Power & Light

## An Effective Program Would Meet the Win-win Criteria

### For Customers

- Convenience, simple budgeting
- Predictable cost
- Desire for choice
- Protection against uncertainty

### For KCP&L

- Improve customer satisfaction
- Stabilize revenue
- Diversify product offerings
- Hedge against weather

 Kansas City Power & Light

## Risks Can Adequately Be Mitigated With a Stable Program

### Utility Risks and Issues

- Weather risk
- Change in customer behavior
- Customer interest
- Speculation
- Pricing and forecasting risk

### Mitigation Factors

- Premium, Generation profile, time
- Profile and price adjustments, contract term
- Promotion, reasonable offers
- Rules for inordinate changes, early withdrawal penalty
- Portfolio adjustments, premium

***But associated incremental costs must be imbedded in the price of the program.***



**2.g**

**Comments Not  
Provided**

**3**

## **FIXED BILL PROGRAMS**

**Electric & Natural Gas Roundtable Discussion Groups  
January 24, 2003 – 1:00 p.m. to 4:30 p.m.**

<b>Name</b>	<b>Organization</b>	<b>Phone</b>
Doug Micheel	Office of Public Counsel	573-751-5560
Bill Guinther	Parkway	314-415-8278
Jim Busch	Office of Public Counsel	573-526-4426
Bill Spowsor	Laclede Gas	573-635-2245
Jan Marcason	Mid America Assistance Coalition	816-561-2727
Steve Friedman	Columbia Tribune	573-815-1713
Debbie Bernsen	MO Public Service Commission	573-751-7440
Gary Bangert	MO Public Service Commission	573-751-7438
Jennifer Markway	MO Public Service Commission	573-522-8701
Kim Elvington	MO Public Service Commission	573-751-7529
Jim Russo	MO Public Service Commission	573-751-7494
Mack McDuffey	MO Public Service Commission	573-751-7507
Paul Adam	MO Public Service Commission	573-526-5898
Mike Pendergast	Laclede Gas	314-342-0532
Tom Imhoff	MO Public Service Commission	573-751-7471
Henry Warren	MO Public Service Commission	573-751-7275
Lena Mantle	MO Public Service Commission	573-751-7520
Hong Hu	Office of Public Counsel	573-522-3376
James Watkins	MO Public Service Commission	573-751-7528
Evelyn Hawley	MO Public Service Commission	573-751-3161
Ken McClure	City Utilities/Springfield	417-831-8445
John M. Quan	Kleh, Rooney, Lieber & Schorling	717-231-7700
Andrew L. Blattenberger	Kleh, Rooney, Lieber & Schorling	717-231-3831
Warren Wood	MO Public Service Commission	573-751-2978
Greg Hanoke		630-992-9474
Jackie Hutchinson	HDC, St. Louis	314-535-7633

Gloria Thirdkill	Laclede Gas Co., St. Louis	314-342-0669
Ivan Eames	CMCHDC-Columbia	573-443-8706
Denny Williams	Aquila	816-737-7857
Rob Hack	Missouri Gas Energy	816-822-7043
Maurice ?	Aquila	816-737-7751
Jerry Osborn	EOC	816-233-8281
Dave Gibson	Empire	417-625-5111
Kathy Walters	Empire	417-625-5111
Todd Tarter	Empire	417-625-5111
Terry Oliver	Empire	417-625-5111
Mike Doggendorf	KCP&L	816-556-2504
Keri McCrorey	EMAA	573-431-5191
Sherry Killian	EMAA	573-431-5191
Scott Jarkovich	Laclede	314-516-8588
Carla Liberda	KCP&L	816-556-2145
Bob Mill	Ameren	217-535-5304
Cara Shaefer	City Utilities of Springfield	417-831-8348
Kwang Choe	MO Public Service Commission	573-751-2072
John Kiebel	MO Public Service Commission	573-751-2664
Anne Allee	MO Public Service Commission	573-751-6543
Kay Niemeier	MO Public Service Commission	573-751-7442
Dave Sommerer	MO Public Service Commission	573-751-4356
Geoff Emerson	Panhandle Pipeline	713-989-7515
Lisa Kremer	MO Public Service Commission	573-751-7441
Bob Jackson	City of KCMO	816-513-3041
Jim Fischer	Fischer & Dority	573-636-6758