The Energy Connection

February 16, 1999 **For Wisconsin** Volume 3, Issue 2

About the Editor ...

As editor of *The Energy Connection*, I am constantly looking for better ways to bring information to end users. This publication was developed in direct response to the needs of Midwest end users.

As we move down a path of further deregulation on natural gas issues, we are continuing to develop the structure for the deregulation of electricity. Inevitably, the energy industry is only going to become more complicated over the next several years.

With two decades of "hands-on" utility and marketer experience, the staff of *The Energy Connection* understands the challenges that end users face in this ever-changing environment. *The Energy Connection* is a tool to empower end users with a greater knowledge of important energy issues that are or will impact your business.

Our philosophy is that our job isn't just to write articles — rather, our job is to provide readers with thorough and comprehensive coverage of energy issues that are critical to commercial and industrial businesses and their bottom lines so that you can save $$$.

Natural Gas & Electricity Purchasing for Businesses
April 27 & 28, 1999
Crowne Plaza, Madison

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Prices for February 1, 1999

	Range	02/99	02/98
ANR Pipeline Co.			
Louisiana (SE)	$1.650 - $1.850	$1.750	$1.910
Oklahoma (SW)	$1.660 - $1.840	$1.760	$1.925
Average	$1.655 - $1.845	$1.755	$1.918
Northern Natural Gas Co.			
Demarcation	$1.740 - $1.910	$1.800	$1.955
Ventura, Iowa	$1.750 - $1.890	$1.810	$1.955
TX, OK, KS	$1.600 - $1.820	$1.700	$1.860
Estimates for Interruptible City Gate Deliveries			
Wisconsin	$1.790 - $2.040	$1.950	$2.190
Chicago, IL	$1.790 - $2.010	$1.890	$2.090
Michigan	$1.770 - $2.000	$1.900	$2.180

City Gate Prices With Firm Capacity to Wisconsin	
Wisconsin: Firm w/Primary Capacity	$1.970 - $2.020
Wisconsin: Firm w/Secondary Capacity	$1.950 - $1.990

City gate index prices are based on information gathered from numerous sources and represent the point where the majority of purchases occurred. City gate index prices do not include marketer premiums or other services, such as daily balancing. In addition, these prices only reflect spot market conditions. There is no consideration of prices for gas supplies which may have been fixed or secured in advance using financial tools and there is no consideration for delivered prices secured using "basis".

NYMEX Pricing at Henry Hub	**02/99**	**02/98**
Closing day: 01/27/99	$1.810	$2.001
01/26/99	$1.714	$2.042
01/25/99	$1.714	$2.064
Last three days simply average	$1.746	$2.036

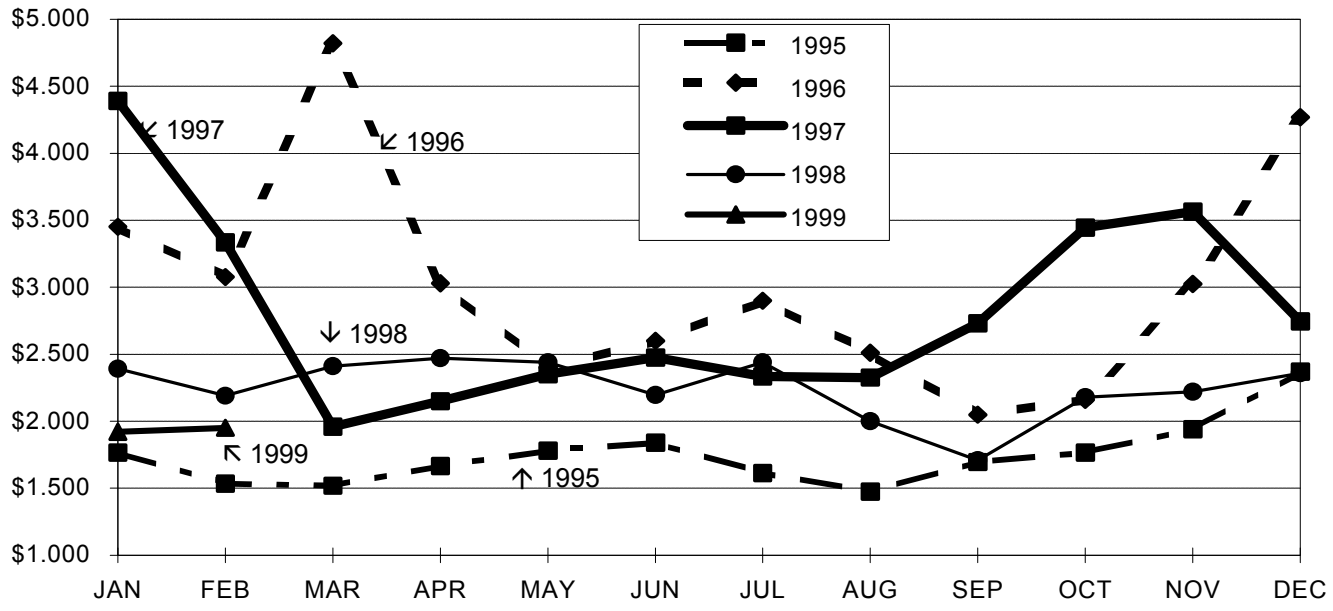
Basis Numbers based on Close	**02/99**	**02/98**
Henry Hub to ANR-SE	$ (0.060)	$ (0.091)
Henry Hub to ANR-SW	$ (0.050)	$ (0.076)
Henry Hub to NNG-Demarcation	$ (0.010)	$ (0.046)
Henry Hub to NNG-Ventura	$ + .000	$ (0.046)
Henry Hub to NNG-TX, OK, KS	$ (0.110)	$ (0.141)
Henry Hub to Wisconsin	$ + .140	$ + .189
Henry Hub to Chicago	$ + .080	$ + .089
Henry Hub to Michigan	$ + .090	$ + .179

Capacity Release Transactions to Wisconsin

ANR Pipeline Company	**SE**	**SW**
Monthly Volume Released (bcf)	3.483	1.512
Avg Award Reservation (dth)	$6.366	$9.006
Reservation @ 100% L.F. (dth)	$.2093	$.2961
Percentage of Maximum rate	50.7%	85.6%
City Gate Price using Capacity Release	$2.082	$2.179

Gas Conversions:
1 dekatherm equals 10 therms
1 Mcf (thousand cubic fee) equals 1 dekatherm (approx.)
1 Bcf (billion cubic feet) equals 1,000,000 dekatherms (approx.)
1 MMBtu equals 1 dekatherm

Pricing Update



Above is a graph showing interruptible Wisconsin city gate prices from 1995 through February 1999.
As you can see, January and February 1999 city gate prices are quite favorable.
But remember, the natural gas market is second in price volatility to the electricity market.

Wisconsin: Price Summary for 01/99

Estimates for Interruptible City Gate Deliveries

Index	1/4 – 1/8	1/11 – 1/15	1/19 – 1/22	1/25 – 1/29
$1.92	$2.25	$1.94	$1.91	$1.87

Firm City Gate Adders for Firm Deliveries:

Firm w/Primary Capacity	+ $.020 - $.100/dth
Firm w/Secondary Capacity	+ $.010 - $.070/dth

Wisconsin: Price Summary for 02/99

Estimates for Interruptible City Gate Deliveries

Index	2/1 – 2/5	2/8 – 2/12
$1.95	$1.90	$1.95

Firm City Gate Adders for Firm Deliveries:

Firm w/Primary Capacity	+ $.020 - $.070/dth
Firm w/Secondary Capacity	+ $.000 - $.040/dth

The Energy Connection uses a number of sources to acquire information on natural gas pricing. All information is based on current factors and is, of course, subject to change quickly.

PRICING OUTLOOK

January 1999

Natural gas prices in January remained subdued in comparison to the last few years. A Midwest snow storm and the second-largest weekly storage withdrawal ever had literally no impact on prices. Instead the New York Mercantile Exchange (NYMEX) tested new "life-time low's" for many of the natural gas contracts.

Overall, January turned out to be rather uneventful with Wisconsin interruptible spot market prices dropping into the low-$1.90's and upper-$1.80's by month end.

February 1999

The February NYMEX contract expired at $1.81 per MMBtu on January 27th — up nearly a dime from the prior day. But the slight uptick in the February NYMEX price had no sustaining effect. Natural gas prices during the first part of February have "traded sideways" — or basically a few cents up and a few cents down. Traders have characterized pricing activity as "ho-hum", "dead", "dull" and "quiet". For end users, those terms are welcomed, but for natural gas traders, they are not.

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Pricing Update

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PRICING OUTLOOK (CONT.)

With the expiration of the February NYMEX contract, focus is now on the March 1999 NYMEX contract — but not much as changed. With the exception of a pipeline explosion on the NOVA system, which temporarily pushed the price of Canadian gas supplies upward, price movements in the price of spot market gas supplies and the NYMEX have been relatively insignificant.

A NYMEX Oddity

One thing that did happen in early February was an oddity in the natural gas futures contract on the NYMEX. In a very high trading day where 61,664 contracts were traded, the back months – all the way to February 2002 – were very active. In fact, the January 2002 NYMEX contract moved up 4 , whereas, back months only move around a penny on a given day. Tom Saal of Pioneer Futures said, "There are some fundamental factors at play here. Gulf production is headed toward a decline, and rig counts are lower. With these things in mind, people are beginning to look at supplies a year down the road."

A report released last month by Baker Hughes showed that the oil and gas rig count is the lowest it has been since 1944. The oil rig count has dropped from 396 rigs one year ago to 122, and the gas rig count has dropped from 595 one year ago to 465. Gil Thurm, president of the Independent Petroleum Association of America (IPAA) said, "The record-low number of working domestic oil rigs signals a crisis in the oil and gas production sector. It is important to remember that these two industries are closely linked, because they share the same rig hands, engineers, geologists and scientists. When there is a crude oil downturn, it will inevitably slow the natural gas business as well."

What the Future Holds

With temperatures remaining above normal in the Midwest, storage inventories remain very high. At this time last year, Midwest gas prices were in the mid-$2.30's — about $.40 per dekatherm higher than this year. And, high storage levels mean that demand for natural gas for storage injections this summer will likely be less.

Short-term. Many analysts say that right now, single digit temperatures are necessary in order to drive both demand and pricing upward. That is what has produced some of the rumors that some producers may be thinking of "shutting in" or turning off their production for a while to both encourage demand and to help prices return to higher levels.

As of February 5, 1999, storage levels were still 428 bcf higher than last year. Salomon Smith Barney predicts storage levels to fall to 1,234 bcf by the end of the storage withdrawal season, which is March 31, 1999. Even with that drop, storage inventories would be 175 bcf over last year and 333 bcf above the 4-year average.

Long-term projections. A study by INGAA called *Pipeline and Storage Infrastructure Requirements for a 30 Tcf U.S. Gas Market* contends that an average of 2,000 to 2,100 miles of new gas transmission pipeline will be needed each year until 2010 to reach forecasted demand levels. The driving force behind the increased natural gas demand is electric generation. Natural gas is the fuel of choice for power plants, and power generation needs account for 60% of the increased demand. The INGAA Foundation is the research arm of the Interstate Natural Gas Association of America (INGAA). The study also concludes that between $32.2 and $34.4 billion of investment in new pipeline and storage infrastructure will be required. In addition, they project that growth will require modest increases in real wellhead prices to between $2.10 and $2.70 per MMBtu.

But according to WEFA's January issue of "Natural Gas Monthly", high storage inventories and increased imports from Canada will likely keep natural gas prices in the $1.90's through 1999. WEFA projects an additional 1.5 bcf to 2.7 bcf of supply versus additional demand of only 1 bcf for the second and third quarters of 1999.

In addition the Energy Information Administration has predicted that natural gas wellhead prices will stay below $2 per Mcf at least through September 1999. Longer term, the EIA says that prices in the year 2000 will not likely drop below the $2 level.

WEATHER DERIVATIVES

Weather is more than just an environmental factor – it is a major economic factor for U.S. businesses. At least $1 trillion of the U.S. economy is weather sensitive. At the heart of this is Mother Nature. While she doesn't intentionally try to harm businesses, sometimes she does.

Weather derivatives are one way for companies to insulate themselves from weather sensitivity. Weather derivatives are different from policies that insurance companies sell to cover catastrophes such as droughts, floods, and hurricanes. Weather derivatives don't pay off losses, rather their payouts are determined by how much average temperatures, rainfall, snowfall, wind or other weather conditions vary in a specific location over a given time.

Watch for more on Weather Derivatives in next month's issue !

Wisconsin Update

COALITION PROPOSES 1999 STEPS

The Customers First! Coalition has proposed a number of steps that they feel must be taken to improve the long-term reliability of Wisconsin's electric system. The Coalition said Wisconsin Act 204 was only the first step to restoring the reliability, and that further action by the Legislature and the Public Service Commission of Wisconsin (PSCW) is critical. Members of the Customers First! Coalition include Wisconsin Public Power Inc., Madison Gas and Electric Co., the Wisconsin chapter of the National Federal of Independent Business, the Citizens Utility Board, and others.

Their Proposal

Customers First! developed a white paper which includes numerous actions aimed at improving the long-term reliability of Wisconsin's electric system. Ironically, while several other Wisconsin investor-owned utilities are usually at odds with the Coalition, both Wisconsin Electric Power Company and Alliant Energy Corp. said they liked some of the things they saw in the proposal. The Customers First! proposal is broken down into several different areas. In each area, they identified the problem and then provided several solutions. Following are some (but not all) of the recommendations by Customers First!

Transmission

The Problem. The building of transmission is a huge challenge because of the controversy over the environmental and aesthetic impacts *(see article on RURAL on Page 6)*. Also, under existing law, there are few, if any, offsetting benefits for local communities from new lines.

Recommended steps.

- Implement 1998 Report. The PSCW should promptly implement the recommendations in its September 1998 Report to the Legislature that Wisconsin utilities build new transmission that will result in 3,000 megawatts of firm, import capability from the west and south.
- Prepare for competition. The Legislature should require utilities to set aside 50% of the import capability on new high-voltage transmission lines for retail competition in the future.
- Create incentives. The Legislature should create an incentive for the siting of new high-voltage transmission facilities (230 kV and above) by imposing a one-time environmental impact fee to be paid by the owners of such new facilities, equal to a percentage (e.g., 5%) of the authorized original project cost. The one-time fee would be paid to the counties and other units of local government through which a transmission facility is routed, and could be used to fund projects to "offset" environmental and aesthetic impacts of the transmission facilities.
- Create a regional compact. The Legislature should authorize and request the Governor to create a regional compact with one or more Midwest states to determine the need and sites for more transmission lines. Currently, there are no regional regulatory arrangements in effect to oversee the development of new multi-state transmission projects.

Generation

The Problem. Act 204 requires the construction of approximately 550 MW of new generation in eastern Wisconsin. However, given anticipated delays in construction of new transmission, load growth, plant retirements and other factors, this new generation may not be adequate to meet Wisconsin's growing needs. In addition, if the needs of Wisconsin customers are not met by independent wholesale merchant plants, large utilities are reluctant to invest in ratebase generation due to uncertainty about future regulation.

Recommended Steps.

- Streamline the process. The PSCW should revoke the two-stage CPCN process so that utilities can propose new generation through a one-step process.
- Create incentives. The Legislature should create incentives for the siting of new generation by imposing an impact fee on the owner of new generation to compensate local communities.
- Encourage utilities to build. The Legislature should encourage the construction of new generation by utilities on a ratebase basis where need cannot be met by independent wholesale merchant plants. The proposal suggests that the owner be allowed the ability to divest the new plant by auction, subject to PSCW review, if and when the Wisconsin electric market is opened to competition. It proposes that 20% of any net profits or net losses be passed onto shareholders, and the remaining 80% be passed onto ratepayers.
- Clarify PSCW's authority. The Legislature should clarify the authority of the PSCW to order public utilities to construct new generation necessary for reliable service.
- Promote technology. The Legislature should direct the PSCW and the Dept. of Administration to encourage the development of high-efficiency, smaller-scale generating units that provide side benefits for the transmission and distribution system, power quality and environmental performance, such as fuel cells, microturbines, and photovoltaic systems.
- Address problems now. The Legislature should direct the PSCW to prepare a comprehensive report to the Legislature on the potential of generation market power to frustrate the creation of a competitive retail electricity market in Wisconsin, and of measures that will eliminate this problem on a sustainable basis.

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Wisconsin Update

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COALITION PROPOSES 1999 STEPS (CONT.)

Other Regulatory Reforms

The Problem. Many industrial customers have been upset by the implementation of interruptible and curtailable programs during the last two summers. And, many other customers have been displeased by urgent appeals by utilities to reduce consumption voluntarily. At the same time, retail customers have not received price signals at times of tight supply that could provide needed elasticity of demand.

Recommended Steps.

- Real-time pricing. The PSCW should implement real-time pricing, which would allow customers to decide whether they want to buy power during peak demand periods, when utilities may be allowed to raise prices. This may be one way to cut electric use in the summer.
- Pay firm customers for curtailments. The PSCW should authorize retail real-time interruptible and curtailable programs for large customers. For existing large customer firm load, the program should allow the customers to reduce verifiable load voluntarily on request in exchange for a payment based upon the market price for energy at the time of reduction.
- Give interruptible customers a choice. Existing interruptible/curtailable customers should be given an option to convert from current fixed credits to significantly lower fixed credits in exchange for receiving payments at the time of actual curtailments or interruptions based upon the market price of energy.
- Make utilities accountable. The PSCW should expand performance-based ratemaking for investor-owned utilities based upon reliability. The PSCW should provide for monetary credits to residential and commercial customers when an investor-owned utility is required by its own circumstances to issue an urgent appeal for voluntary conservation by such customers.
- Educate customers on the market. The Legislature should direct the PSCW to develop and implement new market-based pricing options for customers that will allow them to take market risk for their energy purchases. The options should be designed to protect other customers from price swings.
- Inform customers. The Legislature should direct the PSCW to issue a rule requiring full public disclosure by utilities of their current reliability status, including operating reserves, planning reserves, available transmission capacity into their systems and unit and line outage status. This disclosure will be necessary for customers to be able to respond to price signals and to prepare for possible shortages.

SOUTHERN ENERGY TO BUILD MERCHANT PLANT

On January 12, 1999, the Public Service Commission of Wisconsin (PSCW) approved construction of a 300-megawatt (MW), natural-gas fired electric generation facility.

The Facility

The facility will be located in the town of Neenah and will be built by Southern Energy Inc. (SEI) of Atlanta, Georgia. Rod Sears, a project director for Southern Energy said, "Starting in June 2000, the plant will begin supplying electricity to Wisconsin Electric Power Company (WEPCO) for at least eight years."

In September 1997, the PSCW directed three Wisconsin utilities to acquire 500 MW of new generating capacity by 2002. WEPCO's share of additional generating capacity was 250 MW, and the plant will meet that obligation.

The PSCW's approval is contingent upon SEI securing all required permits and approvals before any construction begins. SEI is also required to work with local officials to minimize aesthetic impacts and to develop effective drainage systems.

A Merchant Plant

The SEI power plant is classified as a merchant plant, which is defined as a power plant that sells energy on the open market, but is not owned by a regulated utility. During the first eight years of operation, under a purchase power agreement, the SEI power plant will sell its power to WEPCO. However, upon expiration of its 8-year agreement with WEPCO, SEI can sell its electricity into the wholesale power market to the highest bidder. If at that time, Wisconsin's electric market is open to competition, SEI will be able to sell its electricity in the retail market.

The Third One

To date, this is the third power plant scheduled to be built in the eastern part of the state by June 2000. The other two plants will be located in Marinette and Christiana. The Marinette facility is being built by Wisconsin Public Service Corp. and will supply power to Madison Gas and Electric Co. The Christiana facility is being built by Polsky Energy Corp and will supply power to Alliant Energy Corp.

Construction of these new power plants is aimed at relieving concerns about electricity shortages while making sure Wisconsin has an adequate generation supply for the future.

Wisconsin Update

RURAL Seeks RockGen Reversal

In January a lawsuit was filed seeking to reverse regulatory approval of a natural gas-fired power plant in Christiana, Wis., just east of Madison. The 450-megawatt (MW) plant, known as the RockGen Energy Center, is to be built by independent power producer Polsky Energy Corp. of Illinois. Alliant Energy has contracted for the first rights to all 450 MW of capacity for eight years. If energy is not needed by Alliant, Polsky can sell it to other wholesale customers in the open market.

The Point of Contention

Under Wisconsin Act 204, the environmental review process of three new electric construction projects was accelerated from 180 days to 90 days. One of these three projects was for Alliant Energy Corp. This expedited approval meant that only one environmental impact statement (EIS) was issued for public comment when the traditional process involves both draft and final EIS's.

The RockGen decision by the Public Service Commission of Wisconsin (PSCW) was broken into two pieces — involving the size of the project and the location. All three commissioners agreed that Christiana was the best site for the facility, but they disagreed on the overall scope of the project. Chairwoman Bie and Commissioner Mettner agreed that they could use the expedited approval on the full 450-MW project. However, Commissioner Farrow dissented on the project scope saying that the Commission's decision should only focus on the 1997 Commission directive to Alliant Energy Corp, to procure 170 MW of additional capacity, not the entire 450-MW facility. *See Page 7 of the 12/16/98 issue of The Energy Connection for details.*

The Lawsuit

The lawsuit has been filed by a citizen's group called Responsible Use of Rural and Agricultural Land (RURAL). Attorney Susan Hedman, who represents the group said, "Our lawsuit is asking that the approval be reversed and that the PSCW and the Department of Natural Resources (DNR) be directed to conduct the full EIS process for this proposal. In addition, state Sen. Chuck Chvala, Dane County Executive Kathleen Falk, and state Rep. Tom Hebl have pledged their support of RURAL's case.

Polsky Energy spokesman Neil Palmer said, "The PSCW and the DNR followed the letter and intent of Act 204. Construction of the plant is scheduled to begin in the spring with plans to be operational in June 2000. However, Hedman said, "At this point it is our understanding that no construction activities can legally go forward. If that changes, I think we would look very closely at the possibility of seeking an injunction stopping construction."

Final Advance Plan Order Approved

On January 20, 1999, the Public Service Commission of Wisconsin (PSCW) approved the eighth and final order of the Advance Plan Process. The first Advance Plan was signed on August 7, 1978. Now, twenty years later, Advance Plan 8 (AP-8) marks the conclusion of this process and the end of an era.

Under 1997 Wisconsin Act 204, Strategic Energy Assessments (SEAs) will replace Advance Plans. AP-8 will serve as a benchmark for the SEAs in future years. The basic function of the SEA is to evaluate the adequacy and reliability of Wisconsin's energy supply.

The Phases

The PSCW segregated AP-8 into two phases. Phase I, which was completed in 1997, involved the development and gathering of information needed in order to prepare generation and transmission plans. Phase II identified fifteen issues which were associated with the review and approval of utility generation and transmission plans.

The Findings

These are just some of the findings on AP-8:

- Incumbent network load (INL) is the wholesale load of municipal utilities that is being supplied by Wisconsin investor-owned utilities. AP-8 estimated that INL by the year 2007 will be between 250 and 350 megawatts (MW).
- The Environmental Protection Agency has filed new nitrogen oxide regulations which means that existing power plants will have to be taken out of service to be properly retrofitted. A separate docket on the environmental effects of utility emissions and the related impacts on reliability resulting from these regulations will be opened in early-2000.
- The loss of generating capacity at the Zion Nuclear Power Plant does not substantially affect the generation plans of Wisconsin utilities.
- The U.S. Department of Energy's failure to honor its contractual obligations to store nuclear waste by January 31, 1998, does not require a change in the generation plans of Wisconsin utilities at this time.
- In 1999, Wisconsin utilities must prepare an electric system reliability report.
- Together, eastern Wisconsin utilities are required to construct or procure 50 MW of new electric capacity from renewable resources by December 31, 2000.
- The reasonableness of considering multiple contingencies as part of transmission plans will be deferred until the PSCW has created a new forum for transmission planning.

Wisconsin Update

WMC Legislative Dialogue

On February 4, 1999, the Wisconsin Manufacturers & Commerce held a 1999 Legislative Dialogue Breakout called *Electric Restructuring In Illinois: A Model, or Lesson Learned?* The focus of the discussion was the enactment of electric deregulation in Illinois last year and featured a paneled discussion by individuals directly involved in Illinois' electric bill passage, and now its implementation. The panel was comprised of:

- JoAnne Bloom, Director of Regulatory Strategies of Commonwealth Edison Company — utility perspective.
- Edward Fitzhenry of Illinois Industrial Energy Consumers — consumer/end user perspective.
- Susan Landwehr, Director of Government Affairs of Enron Corp — marketer perspective.

JoAnne Bloom

Bloom explained that talks regarding electric restructuring began in 1995, with a collaborative effort among numerous parties. She said one of the goals of the bill was to shield Illinois consumers from the chaos of transitioning to a competitive marketplace. She said one aspect of the Illinois bill that is unique from other states is a provision called "reverse severability". This means that if one part of the bill fails, it fails in its entirety.

Bloom specifically commented that Wisconsin's plan to achieve electric competition through a 13-step plan is not workable. She explained that the electric industry is vertically integrated because the utility owns the generation, the transmission, and the distribution lines. Therefore, she said it is not possible to look at just one piece at a time – rather Wisconsin needs to look at all pieces as a whole. She said that because electric service impacts a regional area, ComEd hoped that Wisconsin would move forward with electric competition.

Illinois status. Bloom explained that in Illinois, the transition to achieve a competitive marketplace will begin in October 1999. Bloom said in developing the bill, the legislature asked utilities to do two things. The first was to address deregulation now, make it simple, and not force consumers to change if they wanted to remain with the utility. The second was to continue to provide some means of protection for low-income consumers.

Bloom also pointed out that the bill makes Illinois utilities accountable for reliability. The utility must pay all damages that would result from a four-hour single outage if it impacted more than 30,000.

Bloom also said that the stranded cost recovery mechanism, called a Competitive Transition Charge (CTC), has an automatic mitigation factor which limits the utility's ability to recover stranded costs.

Ed Fitzhenry

Fitzhenry emphasized that it is incumbent upon businesses and industry in Wisconsin to work together to build a compromise electric restructuring bill. He said that Illinois went through a number of bills before reaching House Bill 362. Although their company didn't endorse the bill, he said it became the vehicle for electric restructuring, which will begin in October 1999.

Fitzhenry said, unlike some states, Illinois utilities have the ability to compete with alternative electric suppliers. This means the utility has the ability to serve a customer outside of their franchise territory, and doesn't have to compete using an affiliate. He said a significant concern is the ability of the utility to enter into separate contracts with individuals — **right now** — under two **non-regulated** services, called customer contract services or billing experiments. Fitzhenry said the utility and customer can work together to develop prices, terms, and conditions under one of these two services right now, even though electric deregulation doesn't really begin until October 1999.

Fitzhenry said there have been many lessons learned and more ahead. He said the bill has sections that address affiliate rulemaking to ensure that the utility doesn't advantage its affiliate; reliability rulemaking; delivery service tariffs; and functional separation rulemakings, which require utilities to separately identify and price the individual components of generation and delivery services (transmission and distribution). However, he said affiliate rulemaking has been appealed by ComEd, Illinois Power, and Ameren; and reliability rulemaking has been appealed by ComEd.

Sue Landwehr

Landwehr said Illinois' plan for competition doesn't promote competition and that she hoped Wisconsin would not use it as a guideline to follow in its restructuring efforts. She pointed out that there is a reciprocity rule, which means a marketer can only participate in deregulation if their associated utility has deregulated. She said that creates barriers to market development.

Landwehr said in addition to numerous barriers, the transition charge, which is in place until 2006, basically eliminates any profitability for a marketer to enter the deregulated market. In addition, she said that during the transition, the utility has the ability to discount, without Commission review, under the disguise of a billing experiment. Landwehr also explained the problems with the utility having the ability to compete directly with utility affiliates and other marketing entities.

Landwehr pointed out that stranded costs were not valued in Illinois. In fact, contrary to Bloom she said the

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Wisconsin Update

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WMC Legislative Dialogue

Sue Landwehr (Cont.)

utilities were allowed to recover 100% of their stranded costs or their lost revenue and were allowed securitize 50% of their capitalization. She said Illinois' legislation promotes dominance by utilities and attempts to tie the hands of the Commission. She said the number of utility witnesses involved in the planning and hearing processes far outweighed marketer and customer witnesses. She said it wasn't because others didn't care but that many didn't have the resources or dollars to spare an equal number of witnesses for such an extended period of time.

Landwehr provided the following suggestions to Wisconsin end users in a transition to a deregulated marketplace:

1) Treat utilities fairly but make them accountable for their stranded costs.
2) Designate "champions" for the market to keep the debate balanced.
3) All consumers (industrial, commercial, and residential) need to be involved and represented in the process.
4) Look to the long-term benefits of competition.
5) Ensure that the Public Service Commission has the tools to implement these numerous rules.

Conclusion

It was clear from interaction among the panelists that they each had different opinions of the successes and frustrations created by the Illinois bill. For example, Bloom from ComEd said the utility now has additional risk because they no longer have a purchase power adjustment clause, which allowed them to pass onto ratepayers all costs associated with the delivery of electricity. However, Landwehr from Enron responded saying that it was ComEd's choice to eliminate the adjustment clause, not a mandate by the legislature.

The WMC Legislative Dialogue session illustrated that the process to electric deregulation in Wisconsin is likely to be a long, complicated battle, which will involve many different viewpoints. When Wisconsin transitions to a competitive marketplace, utilities, marketers, and end users will likely have different positions on various issues. **To ensure that electric restructuring in Wisconsin will meet your needs, you need to stay involved and informed!**

The Legislative Dialogue was sponsored by the Wisconsin Manufacturer's and Commerce. For more information on the WMC, please call Eric Borgerding at (608) 258-3400.

NEMA Releases Guidelines

The National Energy Marketers Association (NEMA) released its *National Guidelines to Restructure the Electric Generation, Transmission and Distribution Industries,* a broad reaching blueprint for electric restructuring. NEMA breaks its guideline report into several sections. Following is a brief summary of some highlights.

Role of the Federal Government

- Congress needs to resolve that competition in the sale of electricity is in the best interest of consumers.
- Congress needs to insure that the Federal Energy Regulatory Commission has a requisite authority to require all owners of transmission facilities to provide transmission service on a non-discriminatory basis. This authority should include the ability to mandate participation in regional transmission organizations (RTO's).
- NEMA supports divestiture of generation assets to non-affiliated entities, and believes that stranded costs associated with generation assets should be collected to the extent that market values for such assets have been determined.
- FERC should clarify Orders 888 and 889 such that:
  - Jurisdictional transmission services are unbundled.
  - Transmission services are sufficiently uniform to be transferable and tradable.
  - There is required separation between the utility's regulated functions and its energy sales functions.
  - The U.S. electric grid, is regionalized and placed under a truly independent management, such as an RTO.

Role of State Government

- State Legislators should clarify and empower state utility commissions to implement customer choice and retail access to all classes of customers, at the earliest possible time.
- State Legislators should require government to purchase power from competitive suppliers, thereby implementing tax and budget reductions immediately.
- State Public Utility Commissions should act promptly to remove operational and tariff barriers to competition and establish a date certain for the transition to a competitive market.

NEMA says that restructuring will fail if government remains the risk manager for the new energy marketplace. Overall, NEMA says that customer choice must be easy to execute in order for customers to want to make a move to competition, and all of their suggestions are easily attained within a two year timeframe.

Education: Fuel Cells

FUEL CELLS: THE FUTURE OF ELECTRICITY?

Recently the Environmental Protection Agency issued directives for higher standards on clean air. This means costly retrofits on power generating units across the nation. And, in order to complete these retrofits, most facilities will have to be taken off-line.

One solution to some of these issues is to further develop a 160-year-old idea — the fuel cell.

History

Sir William Grove, a Welsh judge and gentleman scientist, built the first fuel cell in 1839. Limited technology prevented any true advancement in fuel cells until the 1960's when NASA was searching for a practical electrical generator for the space flights. NASA discarded nuclear power as too risky and solar power as too expensive. They settled on fuel cells to supply power and water to the Gemini and Apollo flights. Fuel cell technology has continued to be incorporated into the design of manned spacecraft and currently supplies power and water to the space shuttles.

Advancements

Advances in technology and manufacturing are making the fuel cell a commercially viable energy source. Fuel cells are already being used in hospitals, schools, airports, office buildings, and more than 150 demonstration plants around the world, which together generate 40 megawatts of electricity. Fuel cells are powering cars, buses, utility vehicles and golf carts. While the applications for fuel cells is expanding, the basic operating principle of fuel cells has never changed.

How They Work

A fuel cell operates like a battery, but is operationally superior. A fuel cell does not run-down or require recharging. It produces electricity as long as it is supplied with hydrogen and oxygen, which are called the reactants. A fuel cell consists of two electrodes sandwiched around an electrolyte. Oxygen passes over one electrode (**cathode**), while hydrogen passes over the other (**anode**) generating electricity, water and heat.

Fuel cells operate on a chemical reaction, instead of combustion, creating zero or very low emissions and no noise. Fuel cells offer greater efficiency by removing the step of combustion and that high efficiency is not compromised by small sizes or part loads.

Fed through the anode, hydrogen gives up its electrons leaving a positively charged proton. The proton passes through to the electrolyte. The electrons are pulled through an external circuit, creating a current that can be used, before reaching the cathode and combining with the oxygen to form a negatively charged particle called an oxygen anion. The oxygen anions then combine with the protons to create water.

The Size

A single fuel cell generates a relatively small voltage, about 0.7-1.0 volt each. Today, an individual fuel cell, which would be considered "large", would measure two feet by two feet due to limits from manufacturing constraints. Generating higher voltage is done by **stacking** the fuel cells. The amount of electrical current produced by a fuel cell is directly proportional to the area of the cell. The greater the required amount of electricity, the larger the stack.

The Future of Fuel Cells

There are several types of fuel cells available in today's market. The consulting firm of Arthur D. Little has issued a report entitled "The Role of Fuel Cell Technology in the International Power Equipment Market." That report estimates the market for fuel cells could become a multi-billion dollar business, reaching $3 billion in sales with a market of 1,500 – 2,000 megawatts per year. It surmises that every 1,000 MW will create 5,000 jobs, and that if just 20 percent of vehicles used fuel cells, 800,000 jobs would be created. The report goes on to predict new markets for steel, electronics, electrical and control industries and other equipment suppliers.

This year alone, the **U.S. Department of Energy** has allocated almost $50 million to research molten carbonate and solid oxide fuel cells for stationary power, plus they have also spent an additional $20 million on fuel cell transportation applications. The department also has a program in place to supplement the use of fuel cells.

Purchasers of fuel cells that are 5 kW or smaller may be eligible for purchase assistance from the Climate Change Fuel Cell Program sponsored by the U. S. Department of Energy. The grants are being awarded to applicants that will be demonstrating U.S. manufactured fuel cell power plants. Grants from the program will support up to one-third the cost of a project, including cost of the plant, delivery, installation, and one year of operation.

Watch for more on fuel cells in next month's issue ….

Where we'll address types, economics, costs, and what it could mean to you as an end user.

Electric Update

GROUPS OPPOSE NERC INITIATIVES

The North American Electric Reliability Council (NERC) board has approved a proposal for federal legislation to create a mandatory nationwide organization that would monitor and ensure the reliability of the electric grid, which would replace the existing voluntary organization. But not all NERC members are on board. A member of the Pennsylvania-New Jersey-Maryland Power Pool voted against the NERC proposal saying the proposed NERC legislation ignores the realities of the Federal Energy Regulatory Commission's intent to establish regional transmission organizations (RTOs) along with a Notice of Proposed Rule-Making (NOPR) expected this March. In addition, they said that they opposed the piece mail handling of electric deregulation at a national level, stating it is a complex issue with interrelated parts and should be included in a comprehensive industry restructuring effort.

FERC DEFINES OASIS

The Federal Energy Regulatory Commission (FERC) took a key step toward achieving greater consistency in implementing its set of uniform business standards and definitions of services for OASIS. OASIS is the Open Access Same-Time Information System, which is the electronic means by which electric transmission capacity is made available. The proposed business practices, filed under RM95-9-003, are divided between mandatory standards and so-called voluntary best practice guides. In addition, the standardized business practices will boost the development of Regional Transmission Organizations or RTO's.

Under FERC Order 888, transmission providers are required to use the internet-based OASIS to inform potential customers of price and availability of service, and other related information. OASIS is designed to insure that transmission providers and their affiliates do not have an unfair advantage in selling and reserving transmission capacity.

However to date, numerous marketplayers have complained that the OASIS does not function the way it is supposed to, and many times is not up to date.

The Public Service Commission of Wisconsin recently approved a number of changes to gas transportation service for Wisconsin Electric Power Company. These changes will be effective this summer. Watch for details in next month's issue.

FERC PRAISES PJM'S PROPOSAL

The Federal Energy Regulatory Commission (FERC) has praised, but did not approve, a curtailment proposal by Pennsylvania-New Jersey-Maryland Interconnection (PJM). FERC said, the proposal, which offers participants of PJM the option of paying congestion charges, rather than using the standard TLR procedures, is innovative, but needs more detail.

TLR

TLR, which stands for Transmission Loading Relief, is a procedure for relieving overloads that could cause a transmission line to malfunction. TLR, a standard procedure implemented by the North American Reliability Council (NERC), to many is problematic. TLR was created to cut down the number of transactions when transmission systems are threatening to overload.

TLR procedures call for utilities to curtail what would ordinarily be considered firm transmission service when continued grid operation reliability becomes strained. However, many say that TLR procedures are being used to stifle competitive access rather than maintain reliability. TLR procedures have been blamed for causing the price of wholesale electricity to spike from the norm of $35 to $7,000 per MWh back in the summer of 1998.

Prior to competition, utilities would in effect, loan power to another grid-interconnected power company and provide monetary or other restitution after the fact. However, critics of TLR say that now the policy which is supposed to be used only during emergencies, is being used by utilities on a daily basis to control access to the grid and effectively shut down wholesale power markets.

What This Means

This unique approach developed by PJM will allow users the option of paying congestion charges in lieu of having a specific transmission action curtailed during periods when TLR is ordered by the NERC. However, before approving the proposal, FERC expanded on PJM's idea, and ordered PJM to make the option for redispatch service available to all users, not just to PJM members. This means that customers involved in PJM transactions (both on and off the system) will be able to pay congestion charges that result from re-dispatching, rather than face emergency curtailments under NERC's standard TLR procedures.

FERC Commissioner William Massey said that PJM's proposal sends precise signals to market participants about the cost of a transaction when capacity is constrained. The proposal by PJM represents the first application of re-dispatching, which involves the use of generation facilities that would not severely restrict the transmission network in order to complete a transaction.

Electric Update

Federal Electric Restructuring Bills

The year's first comprehensive utility restructuring bill was introduced into the House by Commerce Committee member Richard Burr. H.R. 667 says that "nothing shall affect any authority of any state or local government under state law concerning the transmission or sale of electric energy directly to a consumer."

In addition, there are rumors that a federal electric deregulation bill will be introduced by the Senate Energy Committee Chairman Frank Murkowski sometime in March.

PUCHA & PURPA

The Burr bill will repeal outdated federal rules, such as the Public Utility Holding Company Act (PUCHA) and the Public Utility Regulatory Policies Act (PURPA). It is likely that the Murkowski bill will also repeal these two laws.

PUCHA is a 1935 law which was enacted after several large holding companies collapsed in the early-1930's. It was enacted to break up the large and powerful trust that controlled the nation's electric and gas distribution networks. Murkowski said PUCHA is an impediment to competition and needs to be repealed.

PURPA is a 1970 Act that required utilities to buy power from small independent producers during the energy crisis. PURPA, enacted during a period of high-energy prices, was intended to encourage independent producers to develop alternative sources of power generation, especially from renewable resources, that would ultimately be bought by utilities. Under the legislation, power supply contracts would not automatically be null and void, but would be reviewed by state utility regulators.

Which One Will Pass?

There are already a dozen energy restructuring proposals floating around in various states of the development in the House, Senate, and White House. H.B. 667 does not give states a federal mandate and allows the states the authority to deal with stranded costs. Like H.B. 667, it is likely that any bill introduced by Murkowski also would not establish a date-certain for states to restructure their markets. This provision is one that Rep. Tom Bliley and Rep. Joe Barton are at odds with. They are hoping to pass legislation this year that includes a federal mandate.

Regional Transmission Organizations

The U.S. Federal Energy Regulatory Commission (FERC) set a schedule of public meetings for states to present their views on Regional Transmission Organizations or what is known as RTO's. FERC has the authority to divide the nation into "regional transmission areas." Now, FERC is studying the RTO issue and whether or not to require utilities to participate in them, as wholesale power markets are open to competition. Meetings were scheduled on February 11th in St. Louis; February 12th in Las Vegas; and February 17th in Washington, D.C.

RTO's, which can take the form of Independent System Operators, are independent organizations that oversee the operation of electric power lines on a regional scale. FERC has been urging states, since 1996, to create ISO's or similar entities to insure non-discriminatory access to the transmission grid in a deregulated market, since the power lines are owned by individual utilities.

Midwest ISO Contacts "Transco"

In order to find out what changes the Transmission Alliance would like to see in the Midwest ISO, a letter was sent from the Midwest ISO to every member of the Transmission Alliance. "We want them to communicate to us what they would like changed, as opposed to doing a lot of extra work," said Midwest ISO chairman, John Procario. Since November, the two organizations have been trying to reach agreement on merging into a single grid operator for the region. Partners of the "for-profit" Transmission Alliance include American Electric Power, Consumers Energy, FirstEnergy, and Virginia Power.

Procario noted in his letter that the Midwest ISO is further along than the Transmission Alliance. "As you are aware, the Midwest ISO structure has been defined. The agreement and supporting documents have been filed with the Federal Energy Regulatory Commission (FERC), approval has been granted, and the directors were elected." This statement comes in response to FirstEnergy's comments to FERC that the Midwest ISO "remains very much a work in progress."

Natural Gas Update

PLAYERS WORK TOGETHER

Industry-sponsored meetings aimed at bringing divided gas segments closer together on some of the major regulatory initiatives proposed by the Federal Energy Regulatory Commission (FERC) got underway in Houston in January. The first order of business was to narrow the primary focus of their negotiations. It was determined that negotiations will revolve around two proposals to ease pipeline rate regulation:

1) Short-term capacity auctioning; and
2) Negotiated terms and conditions.

The closed-door sessions are expected to be an interactive dialogue providing industry comments on the mega-notice of proposed rulemaking (NOPR) and the notice of inquiry (NOI) in April. The goal of the meetings is to help various industry segments bridge some of the differences that they have so that when comments on the NOPR/NOI are submitted to FERC, they have more clarity and uniformity.

However, skeptics say that given the difference perspectives that different industry segments on the issues, uniformity is not likely to occur. However, they do agree that the meetings could reduce the degree of contentiousness. Plans are to meet seven times in Houston until April 22nd which is when comments are due at FERC.

ATLANTA GAS ACCUSED OF GOUGING

Atlanta Gas Light Co. (AGL) and the Georgia Public Service Commission (GPSC) have reached an agreement that will result in AGL returning to its pre-deregulation billing methods. In addition, AGL must refund $14.5 million to its customers.

With the start of deregulation back in November, AGL was allowed to modify its billing structure to a two-part rate. Rather than simply charging volumetric rates, AGL's rates were comprised of demand charges and commodity charges.

Demand Charges

Demand charges are not uncommon in the natural gas industry. Pipelines assess a demand charge to utilities and marketers when they reserve capacity in a pipeline. This demand charge is paid regardless of whether or not the space is used. For example, a demand and commodity charge work similar to the renting of a U-Haul truck for $29 plus mileage. The demand fee would be similar to the $29 fee which would be charged to reserve the truck regardless of how full it was. The commodity fee would be for the gas commodity itself and the cost to move it through the pipeline. By paying the demand fee, the utility or marketer is insured that there will be space in the pipeline to move gas to their customers.

Commission Position

A report by consultant William Foster of Foster Associates said that AGL was using its market power to gouge its customers. Foster said that AGL was attempting to recover most, if not all, of its fixed costs (demand charges) over the winter months, rather than spreading the cost throughout the year. In addition, Foster said that AGL's marketing affiliate could benefit from the high prices by offering a discount on "inflated prices."

AGL has said the investigative report completed by the GPSC, which showed an overcollection of $25 million, was riddled with "misrepresentation of fact and insupportable recommendations." Ross Willis, an AGL spokesman, said "Newly configured rates resulted in a 20 percent increase for average bills in December because a large part of the gas bill is the cost of reserving space on interstate pipelines for the coldest days (demand charges). With the warm weather, consumers paid for capacity they didn't use. While prices seem high now, the GPSC has not considered that charges will drop significantly in the spring and summer months."

Lessons Learned

Two things have resulted from this. One, customer switching to alternative suppliers has been accelerated over the past several months. And, two, regardless of who is right, it appears that Georgia customers were not educated in how the billing modification would effect their costs – a lesson for many as we move to a deregulated marketplace.

GISB SAYS INTERNET IS KEY

The Gas Industry Standards Board (GISB) has announced that reforming electronic industry communications through the Internet will be one of the organization's major goals this year. Last month, the GISB Executive Committee approved the first part of a series of standards that will initiate a transition from electronic bulletin boards, to interactive web sites.

To date, the leadership of the GISB top decision-making committee has been in the hands of pipelines and producers; but the authority is now being passed to service companies and distributors in 1999. Other issues that the group hopes to set standards on in 1999 are imbalance netting and trading, cross-contract ratings, long-term purchase and sales contracts, operational flow orders, and critical notices.

Pipeline Update

ANR Moves Ahead in Brookfield

In late-January the city of Brookfield, Wisconsin, negotiated a deal with ANR Pipeline Co. that will give the city nearly $600,000 in compensation for 17 acres of city-owned land, located primarily in Mitchell Park. Faced with the need to add pipeline capacity to meet Wisconsin's increasing demand for natural gas, ANR received approval from the Federal Energy Regulatory Commission (FERC) to build a $24 million, 11.7 mile, underground pipeline. The pipeline is proposed to run through portions of the City of Brookfield, the Town of Brookfield, Menomonee Falls and New Berlin.

Rather than deal with the a lengthy legal battle, initiated by Brookfield city officials, ANR entered into a "partnership". The deal calls for ANR to contribute $200,000 toward right-of-way funds, which will be earmarked for a new park pavilion. In addition, ANR will contribute an additional $150,000 toward the park pavilion, $50,000 toward a performing arts center and $35,000 for trees, all planned for Mitchell Park. ANR will also cover the city's $40,000 in legal fees and consulting expenses over the project, and it must spend an anticipated $100,000 to purchase 40 acres of wetlands on the city's north side and donate it to the city.

With this settlement, ANR has acquired nearly 90 percent of the land it needs, but still has to contend with private landowners in Waukesha Co., Menomonee Falls, the Town of Brookfield and New Berlin, as well as the municipalities themselves. However, it is important to remember that when FERC approved the pipeline, they also provided ANR with the power of eminent domain. This means that ANR has the right to acquire easements along the pipelines' path even if property owners don't want to grant them.

Independence Competition

CNG Transmission Corp., has asked the Federal Energy Regulatory Commission (FERC) to dismiss the pending application of its competitor, Independence Pipeline. The proposed Independence Pipeline would extend from Defiance, Ohio, to the Leidy Hub in Pennsylvania. At that point, it would intersect with six other pipelines capable of delivering gas along the entire Eastern seaboard.

CNG's Argument. CNG says the Independence Pipeline application is outdated and lacks market support, since non-affiliated agreements to date only represent 13% to 14% of the project's capacity. CNG also contends that DirectLink, the marketing affiliate of Independence, formed back in 1997, was simply the result of FERC staff demanding that the pipeline either show market support for the project within 20 days or face dismissal of its application.

Independence's Response. On February 2, 1999, Independence filed a response which said CNG's allegations are simply not true. Independence said it has demonstrated market need by executing contracts for 55% of its capacity. Independence also pointed out that even if its marketing affiliate, DirectLink, has contracted for this capacity, FERC gives equal weight to agreements with both affiliates and third parties.

Overall, Independence partners said that because CNG serves some of the same geographic areas that Independence Pipeline proposes to serve, CNG's pleading is simply a strategy to prevent a new competitive pipeline entrant into the Northeast and Middle Atlantic regions of the U.S. Independence Pipeline Partners include ANR Pipeline, Williams' Transcontinental Pipeline, and National Fuel Gas Supply.

ANR Rate Changes (Per Dekatherm)

	02/99	Prior Rate
Interruptible Transportation Service (Sh. 9)		
Southeast to Northern Segment (ML-7)	$.3448	$.3582
Southwest to Northern Segment (ML-7)	$.3319	$.3477
Northern to Northern Segment (ML-7)	$.1512	$.1565
Transition Cost Recovery Mechanisms (Sh. 18)		
PD Reservation Surcharge	$.0000	$.2220

[a] Proposed

The above information is taken directly from the ANR GEMS system. Rates are effective unless stated otherwise. In the event a proposed rate is modified, it will be noted in the next issue. For more information, contact Valerie Kelm at (608) 848-6255 or this information is available through the ANR GEMS bulletin board.

Estimated Working Gas In Storage

As of February 5, 1999 (in bcf)

	Current Year	Last Year
Total U.S. Storage	1,946	1,518
Maximum Storage Capability	3,248	3,248
% Full	59.9%	46.7%

Pipeline March Nomination Deadline under GISB
Electronically: 2/28/99 11:30 a.m. CST
NYMEX March Contract Expiration: 02/24/99

Mergers / Joint Ventures / Acquisitions

Avista Sells Interest In Howard/Avista

Avista Energy, Inc., has completed its acquisition of Vitol Gas & Electric LLC. With this acquisition, Avista Energy says it has a platform from which it can further the growth of its North American marketing and trading business, in both electric and natural gas markets.

In connection with the Vitol acquisition, Avista announced that it has sold back to Howard Energy, its investment in Howard/Avista Energy. The partnership forming Howard/Avista Energy was established in July of 1997. T. M. Matthews, board chairman, president, and chief executive officer for Avista Corp. said, "One of the primary reasons we entered into the Howard/Avista partnership was to gain access to electric markets in the Midwest and East, areas where Howard Energy was already marketing natural gas to end-use customers. When those electric markets did not develop as anticipated, we began to look at other opportunities to expand our presence on a national level, rather than just specific regions. The Vitol Gas and Electric acquisition provides us with an excellent opportunity to further that objective."

Roger Steed, president of Howard Energy said, "Midwest electric markets just haven't opened up as quickly as planned and thus the partnership with Avista hasn't provided the electric marketing opportunities they had hoped for. The cessation of our partnership with Avista will have no impact on the way we do business. Howard has regained 100% ownership and will continue to be a major provider of services in the Midwest, just as we have done for the past 13 years."

AEP/CSW to Sell Off 550 MW of Power

In November, when reviewing the proposed merger between American Electric Power Co., Inc. (AEP) and Central & South West Corp. (CSW), the Federal Energy Regulatory Commission (FERC) raised some concerns about the combined companies' dominance in the Texas and South Central power market. In a proposal filed in mid-January, AEP/CSW answered those concerns saying they will divest 550 MW of generating capacity two years after the companies have merged. They say it will take that long to preserve the benefits to shareholders and ratepayers from the merger. To compensate for the two-year lag in full divestiture, and still answer FERC's concerns, the companies will sell 550 MW of energy per hour in a system power sale, thus removing generation from the control of AEP/CSW. The companies have filed a similar proposal with the Texas Public Utility Commission.

Next Month: Watch for ...
"Merger Trends: Good or Bad?"
An article on what is happening in the industry and how it could effect all of us.

Houston Industry Changes Name

Houston Industries, Inc. announced that it changed its name to Reliant Energy as of February 8, 1999. Reliant Energy president and chief operating officer, Steve Letbetter said "The name change is part of a focused, long-term business strategy to transform our company into leading national and international energy company."

In 1997, Reliant Energy acquired NorAm Energy, which expanded its customer base from 1.4 million to nearly 4 million gas and electric customers. Then in December 1998, NorAm Energy purchased National Energy Management (NEM), a Midwest marketer.

National Grid Buys Another U.S. Utility

The New England Electric System (NEES) announced that it will acquire Eastern Utility Associates. This means that National Grid Group, parent to NEES, has bought another U.S. electric company. National Grid owns the U.K. power transmission lines, and purchased NEES less than a month ago. The NEES/EUA merger is not contingent upon the NEES/National Grid merger closing. However, the NEES/EUA merger is subject to other regulatory approvals.

This newsletter is designed to serve end users and other energy marketplayers. Please contact Valerie Kelm at Energy Solutions, Inc., with any comments, suggestions, or questions.
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ANR City Gate Prices for February 1999

	Southeast to ML-7 (Wisconsin)			
	ETS	FTS-1	FTS-2	ITS
[1] **Fuel**				
Tariff	5.33%	5.33%	5.33%	5.33%
Gathering	0.00%	0.00%	0.00%	0.00%
Total	5.33%	5.33%	5.33%	5.33%
[2] **Reservation Rates**				
Tariff	$ 10.3580	$ 9.7500	$ 6.4110	n/a
Gathering	$ 1.2500	$ 1.2500	$ 1.2500	n/a
[3] GRI	$ 0.2300	$ 0.2300	$ 0.2300	n/a
GSR	$ 0.0110	$ 0.0110	$ 0.0110	n/a
PD	$ -	$ -	$ -	n/a
Dakota	$ 0.1320	$ 0.1320	$ 0.1320	n/a
Total	$ 11.9810	$ 11.3730	$ 8.0340	n/a
[2] **Commodity Rates**				
Tariff	$ 0.0140	$ 0.0140	$ 0.1238	$ 0.3448
Gathering	$ 0.0002	$ 0.0002	$ 0.0002	$ 0.0413
ACA	$ 0.0022	$ 0.0022	$ 0.0022	$ 0.0022
[3] GRI	$ 0.0075	$ 0.0075	$ 0.0075	$ 0.0075
Volumetric Buyout/Buydown	$ 0.0001	$ 0.0001	$ 0.0001	$ 0.0001
Total	$ 0.0240	$ 0.0240	$ 0.1338	$ 0.3959
City Gate @ Max Rates				
[4] Estimated Wellhead	$ 1.7500	$ 1.7500	$ 1.7500	$ 1.7500
Fuel Cost	$ 0.0985	$ 0.0985	$ 0.0985	$ 0.0985
Reservation / 30.4167	$ 0.3939	$ 0.3739	$ 0.2641	$ -
Commodity	$ 0.0240	$ 0.0240	$ 0.1338	$ 0.3959
Total	$ 2.2664	$ 2.2464	$ 2.2464	$ 2.2444
City Gate @ Cap Release				
[4] Estimated Wellhead	$ 1.7500	$ 1.7500	n/a	n/a
Fuel Cost	$ 0.0985	$ 0.0985	n/a	n/a
[5] Capacity Release	$ 0.2093	$ 0.2093	n/a	n/a
Commodity	$ 0.0240	$ 0.0240	n/a	n/a
Total	$ 2.0818	$ 2.0818	n/a	n/a

	Southwest to ML-7 (Wisconsin)			
	ETS	FTS-1	FTS-2	ITS
[1] **Fuel**				
Tariff	5.24%	5.24%	5.24%	5.24%
Gathering	n/a	n/a	n/a	n/a
Total	5.24%	5.24%	5.24%	5.24%
[2] **Reservation Rates**				
Tariff	$ 9.8580	$ 9.2500	$ 6.0810	n/a
Gathering	n/a	n/a	n/a	n/a
[3] GRI	$ 0.2300	$ 0.2300	$ 0.2300	n/a
GSR	$ 0.0110	$ 0.0110	$ 0.0110	n/a
PD	$ -	$ -	$ -	n/a
Dakota	$ 0.1320	$ 0.1320	$ 0.1320	n/a
Total	$ 10.2310	$ 9.6230	$ 6.4540	n/a
[2] **Commodity Rates**				
Tariff	$ 0.0160	$ 0.0160	$ 0.1203	$ 0.3319
Gathering	n/a	n/a	n/a	n/a
ACA	$ 0.0022	$ 0.0022	$ 0.0022	$ 0.0022
[3] GRI	$ 0.0075	$ 0.0075	$ 0.0075	$ 0.0075
Volumetric Buyout/Buydown	$ 0.0001	$ 0.0001	$ 0.0001	$ 0.0001
Total	$ 0.0258	$ 0.0258	$ 0.1301	$ 0.3417
City Gate @ Max Rates				
[4] Estimated Wellhead	$ 1.7600	$ 1.7600	$ 1.7600	$ 1.7600
Fuel Cost	$ 0.0973	$ 0.0973	$ 0.0973	$ 0.0973
Reservation / 30.4167	$ 0.3364	$ 0.3164	$ 0.2122	$ -
Commodity	$ 0.0258	$ 0.0258	$ 0.1301	$ 0.3417
Total	$ 2.2195	$ 2.1995	$ 2.1996	$ 2.1990
City Gate @ Cap Release				
[4] Estimated Wellhead	$ 1.7600	$ 1.7600	n/a	n/a
Fuel Cost	$ 0.0973	$ 0.0973	n/a	n/a
[5] Capacity Release	$ 0.2961	$ 0.2961	n/a	n/a
Commodity	$ 0.0258	$ 0.0258	n/a	n/a
Total	$ 2.1792	$ 2.1792	n/a	n/a

	ML-7 to ML-7			
	ETS	FTS-1	FTS-2	ITS
[1] **Fuel**				
Tariff	1.46%	1.46%	1.46%	1.46%
Gathering	n/a	n/a	n/a	n/a
Total	1.46%	1.46%	1.46%	1.46%
[2] **Reservation Rates**				
Tariff	$ 4.8580	$ 4.2500	$ 2.7940	n/a
Gathering	n/a	n/a	n/a	n/a
[3] GRI	$ 0.2300	$ 0.2300	$ 0.2300	n/a
GSR	$ 0.0110	$ 0.0110	$ 0.0110	n/a
PD	$ -	$ -	$ -	n/a
Dakota	$ 0.1320	$ 0.1320	$ 0.1320	n/a
Total	$ 5.2310	$ 4.6230	$ 3.1670	n/a
[2] **Commodity Rates**				
Tariff	$ 0.0075	$ 0.0075	$ 0.0554	$ 0.1512
Gathering	n/a	n/a	n/a	n/a
ACA	$ 0.0022	$ 0.0022	$ 0.0022	$ 0.0022
[3] GRI	$ 0.0075	$ 0.0075	$ 0.0075	$ 0.0075
Volumetric Buyout/Buydown	$ 0.0001	$ 0.0001	$ 0.0001	$ 0.0001
Total	$ 0.0173	$ 0.0173	$ 0.0652	$ 0.1610

(1) Fuel is calculated on receipt volumes (index price / (1 - fuel percentage)) = Wellhead price with fuel.

(2) Reservation and commodity rates may be based on rates that are proposed by ANR, and may not yet be approved.

(3) GRI is charged on the last pipeline to transport gas. The reservation rate reflects a High Load Factor (exceeding 50%); the Low Load Factor is $.142 per dth.

(4) Estimated wellhead prices are based on the prices on the newsletter cover and do not include marketer premiums.

(5) Capacity release is based on information on current releases that are located on Page 16 and 17.

Notes: Tariff reservation and commodity charges are reflective of the most current effective or proposed rates.

The prices for Capacity Release are only reflective of actual releases taking place on ANR's GEMs bulletin board; there is no consideration of releases that take place in the "gray" market.

ANR Initial Capacity Release Pricing for February 1999: Southeast

ANR SOUTHEAST CAPACITY RELEASE PRICING TO ML-7 (Includes Wisconsin)

Offer #	Bidder Name	Releasor Name	Award Dates Start	Award Dates End	Primary Delivery Point	Primary Receipt Point	Rate Type	Rate Form	Reservation/Vol Rate Max Rate	Reservation/Vol Rate Award Rate	@ 100% L.F. Max Rate	@ 100% L.F. Award Rate	Daily Award Quantity
6640	CNG RETAIL SERVICES CORP	EAST OHIO GAS CO	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 8.845	$ 0.3812	$ 0.2908	1,269
6641	NESI INTERGRATED EGY RES	EAST OHIO GAS CO	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 8.845	$ 0.3812	$ 0.2908	161
6642	INTERSTATE GAS SUPPLY INC	EAST OHIO GAS CO	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 8.845	$ 0.3812	$ 0.2908	130
6643	ENSERCH ENERGY SVCS INC	EAST OHIO GAS CO	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 8.845	$ 0.3812	$ 0.2908	245
6644	POWER RESOURCES OPER CO	EAST OHIO GAS CO	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 8.845	$ 0.3812	$ 0.2908	570
6645	SEMPRA ERGY TRADING SVC	EAST OHIO GAS CO	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 8.845	$ 0.3812	$ 0.2908	28,000
6647	DUKE ERGY TRDG MKTG SVC	UTILICORP UNITED PNG	2/1/99	2/28/99	FENNVILLE	S E HEADSTATION	FTS-1	Res	$ 12.203	$ 2.520	$ 0.4012	$ 0.0828	5,000
6648	ALCOA FORGING DIV DBA	CLINTON ENERGY MGMT SVC	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 11.595	$ 0.3812	$ 0.3812	5,500
6649	DUKE ERGY TRDG MKTG SVC	WISCONSIN ELECTRIC POWER	2/1/99	2/28/99	WAUKESHA	S E HEADSTATION	FTS-1	Res	$ 12.203	$ 1.890	$ 0.4012	$ 0.0621	9,200
6650	DUKE ERGY TRDG MKTG SVC	SEMCO ENERGY GAS COMPANY	2/1/99	2/28/99	SOUTHEASTERN MICH	S E HEADSTATION	FTS-1	Res	$ 12.203	$ 2.220	$ 0.4012	$ 0.0730	13,564
6651	PG&E ENERGY TRADING CORP	CONSUMERS GAS CO LTD	2/1/99	2/28/99	WILLOW RUN (DELIVERY)	S E HEADSTATION	FTS-1	Res	$ 10.345	$ 1.260	$ 0.3401	$ 0.0414	7,568
6652	ENGAGE ENERGY US INC	CONSUMERS ENERGY COMP	2/1/99	2/28/99	WILLOW RUN (DELIVERY)	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 7.604	$ 0.3812	$ 0.2500	10,000
6653	CMS MKTG SVCS & TRDG CO	CONSUMERS ENERGY COMP	2/1/99	2/28/99	STAG LAKE (ST JOSEPH CO)	S E HEADSTATION	FTS-1	Res	$ 10.345	$ 6.692	$ 0.3401	$ 0.2200	1,000
6654	CMS MKTG SVCS & TRDG CO	CONSUMERS ENERGY COMP	2/1/99	2/28/99	STAG LAKE (ST JOSEPH CO)	S E HEADSTATION	FTS-1	Res	$ 10.345	$ 7.604	$ 0.3401	$ 0.2500	4,000
6655	COLUMBIA ENERGY MKG COR	CONSUMERS ENERGY COMP	2/1/99	2/28/99	WILLOW RUN (DELIVERY)	S E HEADSTATION	FTS-1	Res	$ 11.595	$ 5.931	$ 0.3812	$ 0.1950	10,000
6656	COLUMBIA ENERGY MKG COR	CONSUMERS ENERGY COMP	2/1/99	2/28/99	STAG LAKE (ST JOSEPH CO)	S E HEADSTATION	FTS-1	Res	$ 10.345	$ 5.931	$ 0.3401	$ 0.1950	2,000
6673	NORTHSTAR STEEL	SEMPRA ERGY TRADING SVC	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.373	$ 8.846	$ 0.3739	$ 0.2908	3,500
6674	AVERY DENNISON CORP	SEMPRA ERGY TRADING SVC	2/1/99	2/28/99	MAUMEE NORTH/EAST OHIO	S E HEADSTATION	FTS-1	Res	$ 11.373	$ 8.846	$ 0.3739	$ 0.2908	1,698
6677	COLUMBIA ENERGY MKG COR	GENERAL MOTORS CORP	2/1/99	2/28/99	STAG LAKE (ST JOSEPH CO)	S E HEADSTATION	FTS-1	Res	$ 11.373	$ 2.129	$ 0.3739	$ 0.0700	5,000
6681	AQUILA ENERGY MARKETING	UTILICORP UNITED PNG	2/1/99	2/28/99	FENNVILLE	S E HEADSTATION	FTS-1	Res	$ 11.981	$ 1.680	$ 0.3939	$ 0.0552	5,992
6683	ENGAGE ENERGY US LP	ENGAGE ENERGY US INC	2/1/99	2/28/99	WILLOW RUN (DELIVERY)	S E HEADSTATION	FTS-1	Res	$ 11.373	$ 7.604	$ 0.3739	$ 0.2500	10,000
						WEIGHTED AVERAGE PRICING			$ 12.565	$ 6.366	$ 0.4131	$ 0.2093	3,483,116

Note: The quantities or prices are based on dekatherms. The incremental cost of surcharges is not included.
The @ 100% load factor is the cost per dekatherm assuming the Daily Award Quantity in dekatherms fully utilized each day.
All information was taken directly from ANR's GEMs system. Capacity releases that appear to be part of the "gray" market are not included.

ANR Initial Capacity Release Pricing for February 1999: Southwest

ANR SOUTHWEST CAPACITY RELEASE PRICING TO ML-7 (Includes Wisconsin)

Offer #	Bidder Name	Releasor Name	Award Dates Start	Award Dates End	Primary Delivery Point	Primary Receipt Point	Rate Type	Rate Form	Reservation/Vol Rate Max Rate	Reservation/Vol Rate Award Rate	@ 100% L.F. Max Rate	@ 100% L.F. Award Rate	Daily Award Quantity
6657	NORAM HUB SERVICES	CONSUMERS ENERGY COMP	2/1/99	2/28/99	STAG LAKE(ST JOSEPH CO)	S W HEADSTATION	FTS-1	Res	$ 9.845	$ 4.258	$ 0.3237	$ 0.1400	10,000
6661	PG&E ENERGY TRADING CORP	NEW ENGLAND POWER CO	2/1/99	2/28/99	MONCLOVA	S W HEADSTATION	FTS-1	Res	$ 9.615	$ 9.615	$ 0.3161	$ 0.3161	42,000
6670	COLUMBIA ENERGY SVS COR	WISCONSIN ELECTRIC POWER	2/1/99	2/28/99	WAUKESHA	S W HEADSTATION	FTS-1	Res	$ 10.453	$ 0.616	$ 0.3437	$ 0.0203	2,000
						WEIGHTED AVERAGE PRICING			$ 10.524	$ 9.006	$ 0.3460	$ 0.2961	1,512,000

Note: The quantities or prices are based on dekatherms. The incremental cost of surcharges is not included.
The @ 100% load factor is the cost per dekatherm assuming the Daily Award Quantity in dekatherms fully utilized each day.
All information was taken directly from ANR's GEMs system. Capacity releases that appear to be part of the "gray" market are not included.

NYMEX Gas Futures Pricing: February 1999

Trading Date	12/30/98	12/31/98	1/4/99	1/5/99	1/6/99	1/7/99	1/8/99	1/11/99	1/12/99	1/13/99	1/14/99	1/15/99	1/19/99	1/20/99	1/21/99	1/22/99	1/25/99	1/26/99	Feb Close 1/27/99	Average For Month	LifeTime High	LifeTime Low
Feb-99	$ 1.886	$ 1.945	$ 2.071	$ 1.975	$ 1.931	$ 1.836	$ 1.830	$ 1.779	$ 1.821	$ 1.770	$ 1.809	$ 1.796	$ 1.817	$ 1.827	$ 1.892	$ 1.778	$ 1.714	$ 1.714	$ 1.810	$ 1.842	$ 2.770	$ 1.695
Mar-99	1.879	1.936	2.053	1.976	1.936	1.856	1.849	1.809	1.850	1.799	1.832	1.822	1.825	1.839	1.908	1.805	1.744	1.750	1.826	1.858	2.600	1.732
Apr-99	1.855	1.908	2.003	1.951	1.916	1.847	1.847	1.815	1.850	1.814	1.845	1.837	1.844	1.856	1.921	1.835	1.784	1.790	1.851	1.862	2.440	1.773
May-99	1.870	1.903	2.000	1.962	1.928	1.865	1.863	1.837	1.869	1.840	1.867	1.860	1.864	1.874	1.932	1.865	1.822	1.824	1.871	1.880	2.380	1.810
Jun-99	1.890	1.917	2.005	1.979	1.946	1.885	1.884	1.866	1.895	1.870	1.892	1.890	1.894	1.900	1.950	1.893	1.852	1.854	1.896	1.903	2.384	1.840
Jul-99	1.915	1.934	2.010	1.990	1.961	1.905	1.905	1.895	1.920	1.900	1.920	1.920	1.924	1.925	1.970	1.920	1.882	1.885	1.925	1.927	2.390	1.870
Aug-99	1.940	1.958	2.020	2.000	1.975	1.928	1.929	1.919	1.940	1.920	1.940	1.940	1.944	1.945	1.987	1.945	1.910	1.913	1.951	1.948	2.390	1.890
Sep-99	1.970	1.985	2.030	2.015	1.995	1.950	1.953	1.943	1.960	1.940	1.960	1.960	1.964	1.965	2.005	1.970	1.938	1.942	1.976	1.970	2.380	1.920
Oct-99	2.015	2.022	2.060	2.045	2.025	1.990	1.995	1.985	2.002	1.990	2.010	2.010	2.014	2.015	2.050	2.025	2.000	2.004	2.031	2.015	2.415	1.970
Nov-99	2.155	2.155	2.185	2.170	2.155	2.125	2.130	2.122	2.140	2.130	2.150	2.150	2.150	2.151	2.190	2.170	2.150	2.153	2.181	2.153	2.535	2.115
Dec-99	2.320	2.320	2.350	2.335	2.320	2.290	2.280	2.272	2.292	2.280	2.300	2.300	2.298	2.297	2.340	2.322	2.300	2.305	2.331	2.308	2.680	2.213
Jan-00	2.385	2.385	2.412	2.395	2.385	2.350	2.330	2.320	2.336	2.329	2.347	2.347	2.347	2.346	2.385	2.370	2.350	2.355	2.381	2.361	2.680	2.295
Feb-00	2.304	2.304	2.329	2.314	2.304	2.275	2.257	2.250	2.262	2.256	2.272	2.272	2.272	2.271	2.307	2.295	2.275	2.280	2.301	2.284	2.565	2.240
Mar-00	2.205	2.205	2.230	2.215	2.205	2.176	2.160	2.155	2.167	2.161	2.175	2.175	2.175	2.181	2.214	2.206	2.190	2.195	2.216	2.190	2.475	2.119
3-month Avg.	$ 1.873	$ 1.930	$ 2.042	$ 1.967	$ 1.928	$ 1.846	$ 1.842	$ 1.801	$ 1.840	$ 1.794	$ 1.829	$ 1.818	$ 1.829	$ 1.841	$ 1.907	$ 1.806	$ 1.747	$ 1.751	$ 1.829	$ 1.854		
6-month Avg.	$ 1.883	$ 1.924	$ 2.024	$ 1.972	$ 1.936	$ 1.866	$ 1.863	$ 1.834	$ 1.868	$ 1.832	$ 1.861	$ 1.854	$ 1.861	$ 1.870	$ 1.929	$ 1.849	$ 1.800	$ 1.803	$ 1.863	$ 1.878		
	$ 2.007	$ 2.031	$ 2.100	$ 2.066	$ 2.039	$ 1.986	$ 1.983	$ 1.964	$ 1.990	$ 1.965	$ 1.989	$ 1.986	$ 1.990	$ 1.995	$ 2.044	$ 1.992	$ 1.954	$ 1.957	$ 2.003	$ 2.002		
	$ 2.274	$ 2.274	$ 2.301	$ 2.286	$ 2.274	$ 2.243	$ 2.231	$ 2.224	$ 2.239	$ 2.231	$ 2.249	$ 2.249	$ 2.248	$ 2.249	$ 2.287	$ 2.273	$ 2.253	$ 2.258	$ 2.282	$ 2.259		

NYMEX Gas Futures Pricing: March 1999

Trading Date	1/28/99	1/29/99	2/1/99	2/2/99	2/3/99	2/4/99	2/5/99	2/8/99	2/9/99	2/10/99	2/11/99	Average For Month	LifeTime High	LifeTime Low
Mar-99	$ 1.860	$ 1.777	$ 1.744	$ 1.818	$ 1.765	$ 1.829	$ 1.800	$ 1.818	$ 1.838	$ 1.775	$ 1.837	$ 1.806	$ 2.600	$ 1.760
Apr-99	1.890	1.803	1.784	1.851	1.805	1.855	1.840	1.851	1.870	1.815	1.866	1.839	2.440	1.765
May-99	1.907	1.838	1.824	1.878	1.835	1.882	1.865	1.876	1.893	1.852	1.891	1.867	2.380	1.810
Jun-99	1.922	1.866	1.855	1.907	1.868	1.902	1.890	1.900	1.915	1.880	1.911	1.892	2.384	1.840
Jul-99	1.947	1.898	1.885	1.932	1.895	1.925	1.916	1.925	1.940	1.910	1.931	1.919	2.390	1.870
Aug-99	1.972	1.928	1.915	1.957	1.925	1.950	1.943	1.951	1.963	1.935	1.955	1.945	2.390	1.890
Sep-99	1.997	1.955	1.945	1.985	1.955	1.975	1.969	1.976	1.986	1.960	1.978	1.971	2.380	1.920
Oct-99	2.055	2.017	2.010	2.047	2.018	2.033	2.025	2.030	2.037	2.011	2.023	2.028	2.415	1.970
Nov-99	2.207	2.172	2.165	2.200	2.177	2.188	2.185	2.190	2.195	2.171	2.188	2.185	2.535	2.115
Dec-99	2.359	2.332	2.325	2.360	2.340	2.350	2.350	2.353	2.358	2.338	2.351	2.347	2.680	2.213
Jan-00	2.414	2.387	2.385	2.420	2.400	2.410	2.410	2.413	2.418	2.403	2.415	2.407	2.680	2.295
Feb-00	2.333	2.312	2.308	2.340	2.320	2.330	2.330	2.333	2.338	2.325	2.335	2.328	2.565	2.240
Mar-00	2.248	2.230	2.226	2.258	2.240	2.248	2.250	2.255	2.260	2.247	2.257	2.247	2.475	2.119
3-month Avg.	$ 1.886	$ 1.806	$ 1.784	$ 1.849	$ 1.802	$ 1.855	$ 1.835	$ 1.848	$ 1.867	$ 1.814	$ 1.865	$ 1.837		
6-month Avg.	$ 1.916	$ 1.852	$ 1.835	$ 1.891	$ 1.849	$ 1.891	$ 1.876	$ 1.887	$ 1.903	$ 1.861	$ 1.899	$ 1.878		
	$ 2.072	$ 2.024	$ 2.012	$ 2.058	$ 2.025	$ 2.052	$ 2.044	$ 2.051	$ 2.063	$ 2.031	$ 2.057	$ 2.044		
	$ 2.312	$ 2.287	$ 2.282	$ 2.316	$ 2.295	$ 2.305	$ 2.305	$ 2.309	$ 2.314	$ 2.297	$ 2.309	$ 2.303		

Natural Gas & Electricity Purchasing For Businesses

Sponsored by

Energy Solutions, Inc.

April 27 & 28, 1999
Crowne Plaza, Madison, Wis.

Day 1: Natural Gas Purchasing

1. The Big Picture
- How natural gas regulation has changed.
- Overview of how the industry works.

2. How Transportation Works
- Market players — suppliers, marketers, utilities.
- How gas is priced.
- The process from purchase to delivery.
- Reservation fees, nominations, capacity release, firm vs. interruptible transportation, and storage.

3. Operating Concerns and Risks
- Daily and monthly imbalances.
- Constraint days.
- Administrative fees.

4. Pricing and Volatility
- Current and future volatility.
- The impact of futures and options on prices.
- What is "basis"?
- Meeting and beating budgets.

5. The Supplier Selection Process
- Step-by-step instructions of how to take the supplier selection process from start to finish.
- Evaluating current firm/interruptible needs.
- Determining current suppliers.
- Developing a Request for Proposal (RFP).
- Choosing pricing mechanisms.

6. Evaluating Bids
- Comparing seemingly diverse responses.
- What it says vs. what it means.
- Identifying potential "hidden" charges.
- Pricing considerations.

7. Contract Negotiations
- Contract items to include (checklist provided).
- Payment terms.
- Contract language pitfalls.

Day 2: Electricity Purchasing

1. From Power Plant to Consumer
- How the delivery of electricity will change under de-regulation.
- Generation options.
- Regional transmission issues and power pools.

2. How the market is evolving
- Wholesale versus retail.
- New market players — ISOs, PXs.
- How the structure of the utility will change.

3. Federal vs. State Legislation
- Legislative battles.
- Stranded costs and what to expect.
- What has worked and what hasn't.

4. Reliability
- System constraints last year.
- The role of the NERC, power pools, ISOs, and power exchanges.

5. A Look at Wisconsin *(Presented by the PSC)*
- Wisconsin Reliability Act.
- Proposed generation and transmission and the impact on reliability.
- What the future holds.

6. Power World Presentation *(Presented by WPPI)*
- Computer simulation of how electricity flows throughout Wisconsin both with and without constraints.

7. How Will Electricity Be Sold
- Putting the pieces together.
- Costs of deregulating.
- How to save money by preparing now.

8. The Future
- Technology – Fuel Cells, etc.
- Mergers and consolidations.
- Year 2000.

Register Via

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Please register me for Natural Gas & Electricity Purchasing for Businesses on April 27 & 28, 1999, in Madison, Wisconsin

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