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RUDDEN'S
ENERGY STRATEGIES
REPORT

Providing valuable strategic insights to the energy industry

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Stress Test

Late last year, the North American Electric Reliability Council (NERC) issued a long-term reliability assessment.[1] I can sum up the conclusions this way:

1. Based on "committed" capacity, six out of ten regions or subregions will have inadequate capacity to meet reliability targets by 2009, and two more by 2011. By adding in plants that might not make it to completion or which have no obligation to meet demand, six of the ten fall below their reliability commitment by 2011. In other words, we're not looking at local problem pockets but rather at a national one.
2. In the summer of 2011, according to NERC nationwide figures, however, the reserve margin still looks decent (15% based on committed capacity and 27% if you add in all the doubtful stuff). By now, most of the new capacity destined for service by 2011 is already under construction, so the number for 2011 must be solid. But the reserve margin falls to 10% in the summer of 2016 (11% including the dubious stuff). That's the time when those new nukes would help, but probably won't.

What will happen if the government imposes carbon restrictions or some unfriendly LNG supplier cuts off supply and keeps some of that capacity from working? Add on to the picture the fact that many generator owners would benefit from power shortages, and construction delays might keep needed plants from getting on line in time. A scary picture long term?

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Next look at the financial picture of the electric industry. Figure that public power agency generators can handle their needs. They have decent bond ratings and sell output to their owners, firms that do not compete for consumers. Investors fleeing from the sub-prime debacle might find comfort in public power investments, at least after the bond insurance mess gets straightened out. Let's say that public power puts up one quarter of generation plant, without any financial problems. The investor-owned utilities and their affiliates may account for at least half of generation needs. The independent firms account for the balance. The latter firms don't have to do anything if they don't like the market. The regulated utilities will end up picking up the slack.

Moody's recently issued a report on the industry which notes "relatively stable" financial metrics but warns that "Material negative bias appears to be developing ...,"[2] which translates into "Watch out, trouble ahead." Risks are rising, but the financial strength of the industry has not risen proportionately, to cope for the higher risk, which could lead to lower bond ratings and higher cost of capital. These increasing risks come in the form of political intervention, rising fuel costs, environmental compliance, construction plans and reluctance to issue common equity.

Moody's characterizes ratings as:

Parent holding companies	Baa2 / Ba3
Vertically integrated utilities	Baa
Transmission and distribution	Baa2
Wholesale generators	Ba / B
Generation and distribution co-ops	A / Baa

[1] NERC, *NERC 2007 Long-Term Reliability Assessment 2007-2016* (Princeton, NJ: October 2007).

[2] Moody's Investors Service, "U.S. Electricity Sector," Jan. 2008, p.1.

To put it less charitably than Moody's, the investor-owned sector now teeters on the cusp of non-investment grade (junk) status.

Next, let's take the Moody's numbers and add in the latest from the Edison Electric Institute's surveys, up them for inflation, and answer a few questions.

1. What sort of financing will the industry need through 2011? Outside financing needs for the investor-owned sector will approximate $20-$25 billion per year, of which $5 billion must come from common stock in order to maintain capitalization ratios. (The public power agencies sell debt, but in a different market. The wholesale generators will build or not build depending on conditions. I would bet that the ones not included in the EEI survey will not add a lot to net financing unless they go nuclear.) These numbers do not look big in relation to the size of recent takeovers, past industry financing or the capital market, as a whole. The industry needs peanuts, relatively speaking, perhaps too little to attract the attention of the masters of the universe who inhabit Wall Street or the City. The electric industry needs private equity, exotic deals, and tax breaks to meet the demands placed upon it? Baloney! (This is a family publication.)

2. What sort of price hikes (excluding fuel costs) will customers have to pay in order to keep the industry on an even keel? Assuming 2% per year inflation and 2% sales growth, I calculate that the industry will require about $5-$6 billion per year, plus recovery of fuel costs, to maintain an even keel, financially. That's about 2% per year added to the electric bill. Last time I looked, the industry had about $6 billion of rate requests pending, but the companies won't get what they requested, and the orders take time, so they haven't asked enough, at least not in a convincing way. (By past standards, getting 2% was not that unusual. Perhaps the industry and the regulatory agencies should rehire some retirees who know how to do it.)

Now for the real problem. Those numbers for spending resemble the Federal budget, in that they do not make provisions for predictable events. The industry, for sure, does not have a clue to what it will have to spend on environmental compliance, when the rules (meaning the administration in Washington?) change. Wait until the nukes get added in, too. Admittedly, adopting new technologies and pricing procedures could reduce spending needs, but those seem slow in coming. A global recession would reduce the demand for fuels and electrical equipment, which could bring down prices. On the other hand, if the 2008 recession proves short-lived, American buyers of electrical equipment will have to continue to compete for that equipment with more desperate buyers (South Africa, China and India) and might not get that equipment. Electrical shortages here?

I'd sum up the situation this way. What's the problem? Not that the electricity supply industry can't meet the undemanding goals it has set for itself, but rather that it does not seem prepared to do more, from operational, regulatory or financial points of view.

Business Organization

A number of years ago, one of my former associates out of the London office, Tony White, argued that independent power generation could survive as a profitable business only as an oligopoly. Last fall, a Wall Street research boutique issued a discussion of cyclical industries, especially mining and railroads, but did not use the O word, because Wall Streeters like to talk in code when referring to activities that remove money from the pockets of consumers ("responsible" pricing, and "constructive" regulation come to mind).[3] The report pointed out that the mining industry had consolidated into a handful of global firms that dominate mining. Those companies, the report reasoned, had strong balance sheets that would protect them in the economic downturn, and that would make them less likely to engage in predatory pricing during the downturn. Personally, I take a different view of why they are less likely to cut prices. Oligopolists know that they have little chance of garnering benefits from a price cut, because their fellow oligopolists will retaliate. (A business with a 1% market share might get some benefit from a price reduction, because it would take away only a tiny part of the business of the other players. In an oligopolistic market, with a handful of players, none of the firms could cut prices without making a big dent in the business of the others, so the other firms would retaliate, and nobody would gain market share, but all firms would charge lower prices, meaning all would end up worse off. That's why none would try to undercut the others. It's like the old mutually assured destruction strategy of the Cold War.)

Cyclical companies with heavy fixed costs have a problem. They make big profits when demand rises and product is in short supply. Nobody discounts in those times. When demand falls or supply increases far above demand, they still have to cover fixed costs. They will tend to cut prices in order to bring in enough business to cover their fixed costs, unless they expect their competitors to do the same. (I'm leaving price elasticity of demand out of this discussion.)

The research report used the word "disciplined" as well. Another code word. Increasing the supply depresses prices, too. In the days of a multitude of mining companies, a company figured that it could gain more from opening a new mine than it would lose from the price reduction that the additional supply would cause. The existing miners lost out, more than the new miner. When a few firms control mineral deposits and existing mines, they think carefully about the impact of supply on price. Yet, they also try to keep the price from reaching a level that will spur substitution by other products or open the door to new entrants.

In a cyclical business, the firm must have the ability to collect high prices during good times in order to make up for losses during hard times. In a cyclical industry with heavy fixed costs, and excess capacity, the firms could go for long periods without earning a compensatory return on investment. If the government caps the price collected during good times, they might never earn a decent return.

[3] "The Scratch Report," Horizon Research Group, August & September 2007, p. 3.

http://www.snlcenter.com/EXNET/util_tax/default.asp

Now consider competitive electric generation. We didn't want oligopolists to control the market, so we set up centralized markets with all sorts of rules. We didn't trust the market to price the product at peak times, so we capped the price. Then we discovered that people hesitated to build power plants that could not collect high prices once in a while but could collect lower prices all other times. Investors do not like that formula, and, either they will not invest in new facilities, or they will invest because they believe that the existing oligopoly can extract compensating higher prices at off peak periods, despite the market rules. This leads to a game played between market rule makers and enforcers on one side, and the electricity suppliers, on the other, with the former trying to create new rules to keep control, and the latter figuring out how to evade the intent of the rules. Naturally, I am discussing a hypothetical situation, but I would expect reasonably intelligent oligopolists to figure out how to bid in an auction market in order to get the best prices (for themselves), especially when the demand part of the supply and demand equation has nothing to say. If I were an oligopolist in such a market, I would have little inclination to add to supply. (Why don't others enter? Well, you can't plop down a power plant anywhere anytime.) Less supply means higher price, and everybody knows that.

Why not break up the power producers into smaller firms? Prices would decline as they did in the UK. That might work as long as we permit prices to rise at peak as well as fall at trough. Otherwise, the multitude of generators would not earn a high enough return to attract capital to the industry for the next round of expansion. Building a power station would involve uncertainty to not only the investor but also to the country. What with need for carbon policy and need to protect against energy mercantilists, we might need power producers that can think ahead farther than the next energy auction. That requires capital and staying power, and, maybe some certainty about prices.

Let's argue that business organizations evolve into a size and shape that provides them with the best position in the market place, over the long term. (Why did electric utilities thrive as vertically integrated monopolies? Why did the broken up Bell companies re-integrate?) If they abuse that position or become complacent, they lose out to a new entrant or to a court order. (Think AT&T, IBM, Apple, Microsoft, Yahoo, General Motors, in the past 30 years.) Maybe we should think of power generation in terms of oligopoly, stop fighting that thought, and consider two ideas laid out by J.M. Clark, years ago, "workable competition" and "competition as a dynamic process." Reading Clark's book on overhead costs might have clued in early investors in power generation as to why their plans were so nutty, but the fact that hardly anybody did just shows that Lord Keynes was wrong about the influence of dead economists. In other words, the big outfits are in the business for a reason, they exert market power, they won't go away voluntarily, let's get over it, and get them to do what we want. Better workable than textbook competition?

Water Drips

No waffling. The article's title, "Climate Change is Real"[4] told it all. The accompanying photograph shows a half full glass of water atop a cracked, sere mudflat. According to the article, water providers face these problems:

1. Some areas will become wetter (the northeast) and others dryer (the southeast).
2. Heavy precipitation events will become more common, leading to more flooding.
3. More hurricanes and storms.
4. Less snow pack and earlier melting.
5. Rising sea level will cause salt water incursions into aquifers along the coast.
6. More intense storm activity increases the likelihood of flooding, turbidity in water supplies and overflow from storm sewers.
7. More fires remove vegetation cover on land, which leads to mudslides and turbidity when the rains come.

Apparently water suppliers don't view these threats as distant or fodder for seminars. Miami-Dade County has been working on the sea level problem for some time. Denver spent millions cleaning up a reservoir after a forest fire denuded the landscape, after which it rained and the land came tumbling down. New York City has a task force working on protecting its extensive water system.

In a similar vein, think about unintended consequences, the bane of public policy makers in a hurry. Jack Hoffbuhr of the American Water Works Association came up with this one. Remember MTBE, the gasoline additive designed to reduce pollutants that had to be banned because it leached into groundwater? Now we want to solve another environmental problem by injecting CO_2 underground. If it leaked into the aquifers, it could affect the chemical composition of the water, and injection "on a large scale could displace saline water into freshwater aquifers."[5] Apparently, current rules do not label CO_2 as a contaminant, so nobody worries, officially, anyway.

[4] Joel B. Smith, "Climate Change is Real: How Can Utilities Cope with Potential Risks?," *Opflow*, Feb. 2008, p. 12.

[5] Jack W. Hoffbuhr, "Waterscape," *Journal AWWA*, Dec. 2007, p. 6.

Speaking about unintended consequences, did you see the story that said that biofuels produce more greenhouse emissions than conventional fuels, once changes in land use are considered? *The New York Times* recently made that discovery.[6] Well, dear reader (as a few living columnists and far more dead writers are wont to say), not to boast, but this publication said something similar last month. And our evidence came from the Swiss government, not exactly a bastion of fuzzy leftist ideologues.

And a final note. Get to see Lake Mead while you can. (Perhaps you heard the story of the Arizonan who flew east. When he came back, one of his friends asked him, "Did you see the Mississippi River?" to which he replied, "No I couldn't see it because it was covered by water.") Anyway, the Colorado River, whose water resources had been divided up between seven states back in 1922, during an unusually wet period, is now, as the news story quaintly puts it, "essentially oversubscribed," and a new study claims that Lake Mead, that huge artificial lake and reservoir on the river, could "run dry within 13 years."[7]

Newly Green Transformed EEI Makes its Debut in New York

The slide read "Transforming the Electric Industry." I thought I'd seen that one before. A recycled slide, maybe? Anyway, as the Edison Electric Institute program began in that vast room, I didn't pay much attention until I thought I heard the president say "imagination in the electric industry," a startling (and some might say oxymoronic) concept. No, I must have been hallucinating. Then he said, "transformation ... watershed ... low carbon future ... mother of all issues: global climate change." Had I wandered into a meeting of a self-help group populated by Boy Scouts who had just underwent an indoctrination by the Sierra Club? No, the EEI had undergone a transformation, at least the public face of the EEI. That's not a criticism. Better to acknowledge the winds of change than maintain a Tobacco Institute posture ("Just because there is a correlation between smoking and cancer deaths doesn't mean there is any causal connection.") You can negotiate with people no longer in a state of denial. They get a seat at the table. Aside from unveiling the new, wholesome green image, the EEI did reveal a few pertinent thoughts and desires:

1. It wants Congress to preserve the low tax rate on dividends.
2. It wants a price cap on carbon emission rights, wants all industries involved, and wants all countries in the arrangement, and wants time before the new rules really kick in.
3. The EEI believes that regulators still don't get the message that the country needs more transmission.

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[6] Elizabeth Rosenthal, "Studies Call Biofuels a Greenhouse Threat," *N.Y. Times*, Feb. 8, 2008, p. A9.

[7] Felicity Barringer, "Lake Mead Could Be Within a Few Years of Going Dry, Study Finds," *N.Y. Times*, Feb. 13, 2008, p. A18.

4. The EEI views the attack against burning coal as a more concerted effort than the old attacks against nuclear power.

Those points deserve some analysis.

I'd argue that double taxation of dividends leads to poor capital allocation, encourages poor corporate governance, and it is inequitable. But the tax cut came with a package of other measures that have been characterized as giving the biggest breaks to the richest people, and those tax breaks don't look long for this world. Unless someone can get across that the majority of the population (through pension funds and individual holdings) owns stocks, I suspect that the dividend tax privilege, in its present form, goes. Will that affect utility industry financing ability or cost of capital? I doubt that the change would deter financing, and I'd bet that capital costs don't change by more than 0.5%.

The industry has taken a tactical stance on carbon restrictions, basically looking for whatever it can get in terms of delay and cost limitations. It does not seem to have a strategic vision, that is, how to reduce emissions dramatically, and find a way to make money on it.

As for transmission, Congress did make transmission a priority and instructed the Federal Energy Regulatory Commission (FERC) to provide incentives to transmission, I believe. Problem is that FERC hasn't a clue as to what "incentive" means. Two commissioners, I gather, believe that FERC should set incentives on a case-by-case basis, which is okay, I suppose, except that it does not give any direction to people thinking about new projects. The commissioners, also, think that higher risk projects deserve a higher return, which makes sense, too, but does not constitute an incentive. Think of it this way. Low-risk project has a 10% cost of capital. High-risk project has a 12% cost of capital. Giving the high-risk project the 12% return does not provide an incentive, it just lets the investor know that he or she will earn cost of capital. That investor should be indifferent between providing low-risk money at 10% or high-risk money at 12%. Neither deal creates any value for the investor. The incentive (and the value) comes about if the project with a 10% cost of capital can earn 11% or the project with the 12% cost of capital can earn 13%. As long as FERC thinks in terms of just and reasonable rates, based on cost of capital, it won't hand out an incentive. That does not mean that FERC can't hand out a return that attracts capital or creates value. It just means that the agency suffers from muddled thinking. Will a new administration change that? I wouldn't bet on it.

Finally, consider the attack on coal. Nuclear advocates take comfort in newly minted environmental backing for nuclear. I wouldn't. People who don't like nuclear power believe that the world would work well, if not

better, consuming less energy or more renewable energy. They won't go away. They might be right, in the long term, but in the short term, less coal means we'll need more natural gas.

In sum, I'd give the EEI a B+ for its change of tactics, but a C for long-term strategy, and you know what Sun Tzu would have said about that, but it's a start.

Do They Really Get It? A Second Opinion

It looks as if almost the entire energy industry has turned green. For real? I mean real in the sense of actually doing something as opposed to talking and figuring out what to tell to or ask from the government? I decided to discuss that and a few other issues with Ben Dysart (president of Dysart & Associates), an engineer who worked in manufacturing and waste management industries, presided over the National Wildlife Federation, and consulted for major corporations, the World Bank, the EPA, the Corps of Engineers and served on the advisory board of the Electric Power Research Institute, where I met him. Dr. Dysart advises corporate clients on public-trust and environmental matters, so I figured I could get some advice.

Q. Have you noticed a significant change in attitude toward global climate change on the part of industry and government agencies? If so, does it manifest itself in actually doing something different?

A. As for getting beyond the rhetoric – that is, constructive advocacy for responsible management of global climate change issues – the U.N. Intergovernmental Panel on Climate Change, Al Gore, some states and some religious groups come to mind. On the for-profit side, the insurance/reinsurance sector understands that this is a serious bottom line issue – and has for some years. The response elsewhere seems mostly in the category of feel good advertisements and noble sounding written commitments. Not much in the way of significant, expedited action comes to mind. A lot of people in the private sector are "working on the issue."

Q. Often, the energy industry proposes a solution to a problem (such as bringing in LNG or building a power line or generator or refinery) that engenders an enormous amount of opposition, which, I think, could have been anticipated. Is there a way to engage the opposition and work out a compromise, before positions become entrenched, or determine in advance what is not feasible and go on to an alternative?

A. Yes, internally generated supply-side solutions frequently engender opposition, yes opposition should have been anticipated, and yes, there are ways to engage the stakeholders, up front, before positions harden into concrete. That involves working smart and willingness to compromise. Sometimes, the

right answer to the project is "no" or "not like you want to do it." That's hard for insiders to say to the boss, so better to plunge ahead, try to fix it on the fly and silence the "opponents" and spend a few billion dollars before the boss gets sound feedback from the world outside. (Does that sound familiar? Can you hear Dr. Phil ask, "Guys what were you thinking? Was there a responsible adult in charge here?") Smart stakeholders know how to shoot the tracks off bad proposals. "Outside trouble makers" may include credible environmental organizations and clergymen. David did defeat Goliath. The DAD approach (decide, announce and defend) is a costly and painful strategy. You turn people into opponents and incentivize them into proving you right or wrong. In either case, you pay big time. As for alternatives, it costs relatively very little to look into them with the stakeholders—seeking a win-win, and doing so can pay off handsomely. Somebody high up—preferably the CEO—should have high, positive expectations for effective stakeholder engagement. Managing the process and the business risks involved will do shareholders as big a favor as stakeholders.

Q. Some economists that I know think that much public opposition comes about because of the "I win/You lose" nature of decisions. If you make $100 and your win costs me $40 worth of loss, maybe you might be willing to go ahead after paying me the $40, and I won't continue to oppose the project. The economists think that they could devise markets to determine valuations and what the buyers and sellers might accept. (I'm not suggesting setting a value on Gettysburg Battlefield in order to buy it for a shopping mall, but people who claim that the sight of a wind mill in the distance diminishes the value of their beach view might settle for a payment for that loss of value.) Is this approach practical?

A. Yes, it is practical. The notion is not new at all. Unfortunately, in the utility sector, there has been a resistance to dealing with "externalities." In your question, you seem to accept the inevitability of public opposition. This is a realistic expectation for entities that choose to plan in a vacuum and then try to cram the project down the throats of the expected "opponents." Incidentally, treating parties like opponents from the start helps to create opponents and energizes pre-existing opponents. As for process, there is a well developed, sequential process of "project mitigation," first formalized for Federal infrastructure programs: first, avoidance of impacts (therefore avoidance of costs), then minimization, compensation, replacement and enhancement. This tiered approach should reduce or eliminate the $40 loss that you pose in the question. My experience is that credible stakeholders want to be listened to and be respected—they and their views—and can actually help the company if they trust the company's leadership. Effective engagement costs very little money. It is extremely cost effective.

My conclusion from Ben Dysart's remarks: no, the powers that be have not gotten serious about global climate change, in the sense of doing something, there's a good chance they will attempt to do whatever they do in the old way and end up on the wrong side of the issue in the eyes of the public, but they need not do it the old way or end up on the wrong side of the debate, and getting it right ahead of time might cost less than fighting it out against the enemy.

The Classifieds

EXNET Annual FERC Briefing, March 18, Ritz Carlton, Pentagon City, Arlington, VA

The EXNET Annual FERC Briefing is a comprehensive overview of FERC's current priorities and procedures. Presenters include FERC Commissioners and Directors, as well as prominent regulatory experts. Please join us on March 18, 2008 at the Ritz Carton, Pentagon City in Arlington, VA. This year's agenda includes: Formulation and enforcement of reliability standards , Order 890 "Attachment K" planning requirements, Generation resource planning

in a green environment, The exercise of FERC's civil penalty authority, Self-auditing for compliance with requirements for open-access, standards and codes of conduct, and reporting, Impact of recent decisions regarding transmission expansion initiatives, Eligibility requirements for market-based rate authority. For more information go to: http://www.snlcenter.com/exnet/ferc/2008/default.asp.

EXNET 23rd Annual Utility Tax Conference, March 27 – 28, Ritz Carlton, Pentagon City, Arlington, VA
The EXNET 23rd Annual Utility Tax Conference brings together leading tax and accounting professionals, company tax and financial managers, legislators and others to explore the ever-changing developments in tax treatment for utilities. The Conference also addresses key rulings from the IRS, statements from the FASB and what lies on the legislative tax horizon. This year's agenda covers: Tax penalties, Environmental allowances, Renewable energy, Employee benefits, Capitalization, Legislative activity, and Normalization. For more information go to: http://www.snlcenter.com/exnet/util_tax/2008/default.asp.

Transmission Business School, June 16-19, Chicago, Illinois
The new 2008 version of the highly-touted Transmission Business School is being offered in Chicago in June 2008 www.illinoiseminars.com/tbs/featured.html. Featured topics include: Power System Basics, Evolving Electricity Markets, and Transmission Business Models. The School classes begin at 8:30 a.m. on Monday, June 16 and continue through 4:15 p.m. on Thursday, June 19. Classes are held on the fourth floor of the Illinois Center, 200 S. Wacker Drive, Chicago, IL. For more information please contact Lynnea Johnson at info@illinoiseminars.com or 217-649-6543.

Black & Veatch Management Consulting Division Releases 2007 National Stormwater Utility Survey Results
Black & Veatch's management consulting division, Enterprise Management Solutions, announced the availability of its 2007 National Stormwater Utility Survey. The survey is conducted every other year and is designed to help professionals in the stormwater industry stay informed on the ongoing issues in the industry. The 2007 survey offers insights into planning, operations, administration and financial management of stormwater utilities in the United States and Canada. Survey respondents range from municipalities and utilities with a few thousand to a million or more customer accounts in their service areas. "The most substantial issues facing stormwater utilities in the 2007 survey pertain to user fees and billing, quality issues and educating the public on challenges and costs associated in complying with stormwater regulations," said Peggy Howe, Vice President of Black & Veatch's water consulting practice. "The survey respondents are quite open about the major challenges they face, and the way they are addressing the significant events affecting water utilities across North America." The survey results are available in PDF format at Black & Veatch's web site www.bv.com/stormwatersurvey or by emailing stormwater@bv.com for a printed copy of the results.

Black & Veatch's Management Succession Planning Service Addresses Aging Workforce Challenges
The B&V Management Succession Planning solution solves both immediate needs for leadership or technical expertise and addresses longer-term needs for permanent successors for retiring staff. The Management Succession Planning Service provides clients with:

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For information contact Tom Resh, Solution-Set Lead for Black & Veatch's Management Succession Planning Service. Tel: 949-584-5123, email ReshTJ@bv.com.

Black & Veatch NERC Cyber Security Compliance Guide
The new Black & Veatch Cyber Security Management service includes: (1) Utilizing subject matter experts to identify critical assets and to understand the parameters used to classify assets, (2) Performs a vulnerability assessment on

existing assets, (3) Provides specific feedback and mitigation recommendations on all deficiencies and helps develop and deploy a policy to meet or exceed NERC CIP guidelines, (4) Offers insight on how to maintain a holistic view of protection for all of the enterprise's critical cyber assets, (5) Creates a roadmap for establishing and maintaining a robust security initiative and an ongoing readiness culture throughout the organization, (6) Addresses the cyber, physical and human resource aspects of compliance along with documentation, incident reporting and ongoing maintenance. To obtain a copy of the Black & Veatch NERC Cyber Security Standards Compliance Guide please send an email with your contact information to CyberSecurity@bv.com, or call Gary Layton at (631) 348-4090, ext. 210.

Custom Ratemaking Seminar – An Introduction to Rate Development and Rate Design

Enterprise Management Solutions announces its custom-designed ratemaking seminar for presentation to utility-specific rate department employees. The central purpose of Rudden's Basic Ratemaking Seminar is to teach the best practices used for integrating all of the required disciplines – Accounting, Engineering, Planning and the Rate Department – into a unified team to support corporate rate and regulatory goals. The seminar achieves this goal through hands-on, practical approaches to all of the elements of the ratemaking process – revenue requirements determination, cost of capital and rate of return, depreciation, cost-of-service, unbundling, cost allocation, the elements of rate design, and a review of alternative regulatory models. For information, contact Diana Tabacco-Peterson at 631.348.4090 x 213, or via email at petersondl@bv.com.

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LEONARD HYMAN PRESENTATIONS

A list of Mr. Hyman's most recent presentations are cited below. To obtain a copy, please direct your request via e-mail to petersondl@bv.com.

"Back to Basics or Forward to Basics" -- Presented to the EPRI Power Delivery and Markets Council; March 6, 2003.

"Financial Crisis in the Electric Power Industry or What Else is New?" -- Presented to the Northeast Energy and Commerce Association; March 6, 2003.

"Let's Talk About What's Important or Where the Electricity Industry May or May Not be Heading" -- Presented to the Energy Bar Association; March 13, 2003.

"Risk Management" -- Presented to Global Power 2003 Conference; New Orleans, Louisiana; March 31, 2003.

"May Day in Houston or How the Energy Industry Has Changed" -- Presented to Acquiring Distressed Energy Assets Conference; May 1, 2003.

"The Next Big Crunch Is Not The Latest Export From Hershey, PA" -- Presented at the Energy Association of Pennsylvania Annual Conference; May 30, 2003.

"Finance, Commerce and Reliability" -- Presented to Northeast Power Conference; June 24, 2003.

"Would a Sane Person Invest in Electric Technology in the U.S.A.?" – Presented at NARUC Winter Meeting; March 9, 2004.

"T&D Redux" – Presented to the Committee on Power Delivery, Association of Edison Illuminating Companies; March 25, 2004.

"Just the Facts, Ma'am" – Presented to the Conference on Understanding and Managing Business Risk in the Electric Sector (UMBRES); April 15, 2004.

"Building the Transmission Network: Past, Present, Future or Maybe Never" – Presented to the T&D World Expo; May 27, 2003.

"The Heart of the Matter or Foundation Flaws Fell Feeble Fixes" – Presented to the ELCON Member Meetings in the Big Easy; June 21, 2005.

"Wires as a Business, or If the Network is the Answer, What is the Question?" – Prepared for International Grid Conference; Toronto, Canada; 15 June 2006.

"How Wall Street Views Electric Utilities of the Future" – Presented to RMEL Fall Convention; San Antonio, Texas; 12 September 2006.

"Reliability for Whom or Cui Bono?" – Presented to the Chartwell Reliability Summit; Atlanta, Georgia; 8 March 2007.

"The Ten Challenges/Issues/Opportunities/Roadblocks/Requirements to Ensure that the Electricity Supply Industry Has the Physical and Human Resources Needed for the Next Thirty Years" – Presented to the Third Annual Carnegie Mellon Conference on the Electricity Industry; Pittsburgh, Pennsylvania; 13 March 2007.

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"Random Thoughts on Picking the Sample of Comparable Firms for the Rate Case," Presented to Society of Utility and Regulatory Financial Analysts (SURFA) 39th Financial Forum; Washington, DC; 19 April 2007.

LEONARD HYMAN ARTICLES

A list of Mr. Hyman's most recent articles are cited below. To obtain a copy, please direct your request via e-mail to petersondl@bv.com.

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"The Next Big Crunch: T&D Capital Expenditures"
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"T&D Economies of Scale and the Mysteriously Fitted Curve"
"Ten Years of Electricity Restructuring: A Financial Postmortem"
"The Consequences of the Northeast Blackout of 2003"
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