

the **Risk** DESK

Volume V

Number 4

Graves-Barrow Bill Scorned by Traders

Desk Chiefs Roundly Reject Bipartisan Pandering

When the terms predictability, reliability and stability are used in the same sentence by federal legislators – at least in the context of energy prices – you’re probably not going to like it. Such is the case with a new bill introduced by Reps. Sam Graves, R-MO, and John Barrow, D-GA. The so-called Graves-Barrow measure was not a part of the omnibus energy bill debate. Instead, it will play to an entirely different constituency, the House Agriculture Committee, on which the two junior congressman sit. Had the two sent the bill to House Energy Committee Chairman Rep.

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Virtual SPR?

For All You Loyal Readers of the EIA’s *Weekly Petroleum Status Report*, the following may be of interest. Next time you receive and click through the weekly e-mail announcing the report’s availability, skip down the long index screen and open up the one-page highlights file. You may not have noted a little footnote next to the stocks graph, the one that says, “Crude Oil in SPR¹.”

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THE POINT

Calpine Deal in the Works?

By Gerry Keenan, managing director, Palmer Bellevue, and senior columnist, *The Risk Desk*

After the merchant energy market hit bottom sometime last year, the discussion has shifted to the prospects for improving the power markets and the potential for a second round of restructuring by firms that still have limited financial flexibility.

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Roles in Risk

We’ve Decided to Create a New Feature Column in *The Risk Desk*.

For the past few years, we’ve run a range of stories on the changing nature of managing risk in the energy sector. Often we focus on the changing roles and responsibilities of senior risk managers or CROs in the general context of the evolving marketplace.

Looking back, we can think of few corporate units in the broad energy sector that have evolved more in the past five years in terms of staff, processes and procedures. With the exception of AEP’s Scott Smith, we’re hard-pressed to name another CRO who has been at the helm for more than four years. Risk chiefs are now involved in

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Long and Winding Road to the Data Hub

Come With Us as We Explore the Cautionary Tale of the Data Hub, a tale that may have a happy ending.

Ed Bell was a senior consultant with PA Consulting’s Houston operation when the data hub idea first materialized. Both he and Professor Craig Pirrong of the University of Houston’s Global Energy Management Institute had already been batting around the idea of an inde-

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Climate Risk Management

Big Investors Call for Disclosure

By Ian Jones, editor

Boston-based investor group Ceres recently provided a good example of the axiom, “Money talks and BS walks.” Ceres published a report urging electric companies to disclose their exposure to climate risk and how they plan to mitigate that risk. It’s an end-run around the endless scientific and political debate over whether glo-

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Cyber Security for the Electric Sector

The Compliance Cost of NERC Attack Prevention Standards

By Doug Howard, Counterpane Internet Security, and Dale G. Peterson, Digital Bond

It is hard to find a business that doesn’t rely on computers and networks. So how much work gets done in a typical office when the network is down?

Most computer networks facilitate the flow of information. But in the electric industry, special computer networks control the process of generating, transmit-

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Shipping Futures on NYMEX

It Wasn’t Until We Spent a Bit of Time

poring over some specs and data from the crude oil and coal shipping sectors that this new offer from the NYMEX began to resonate with us. In case you missed the announcement, the NYMEX will start offering freight derivatives in Q2 this year as a way to “protect against or speculate on changes in the cost of shipping commodities such as oil, coal or grain.” The new contracts will be offered and cleared through its electronic ClearPort system.

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CFTC Roundtable on CPOs

The CFTC Recently Hosted an Information-Packed,

albeit a somewhat subjective discussion on the whys and wherefores of commodity pools and hedge funds. The line-up of speakers was first-rate, the presentations were meaty and the ensuing discussions with commissioners were quite good. The small first-floor hearing room was jammed with dozens of expensive DC lawyers, Hill staffers and a few key lawmakers who sat quietly, soaking in the details for their own edification. The message from the moment the session opened to the close was this: Funds are not the bogymen, and even if they were, the CFTC is on top of the situation. We ran out of time this week to devote much space to the event so we plan to write up a few presentations for next week. The subject of “systemic events,” in the context of fund speculators blowing up the mar-

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Back in the Saddle, Baby

The Age of “Back to Basics” is Over. The new catchphrase coming out of McDermott Will & Emery’s recent energy conference was “everything is in play.” When it comes to risk management and trading instruments, everything is on the table – distressed assets, weather derivatives, swaps, options, tax strategies, physical plays to buy and build, regulatory and market mitigation risk, emerging capacity and energy market structures – it’s all presented to market participants at the same time,” says MWE partner Greg Lawrence. The central message from the speakers and attendees, a public and private sector Who’s Who of the energy business, was: Let’s get back to business.

The buzz was palpable at the Willard Hotel in Washington, DC, where the high-level powwow brought together about 90 representatives of traders, financial institutions, hedge funds, utilities, merchant generators, ISOs and the federal regulators – CFTC, FERC, DoJ, FTC.

“There’s a tremendous amount of excitement for really focusing on the emerging California market and closing seams in the MISO/NYISO/PJM capacity, energy and transmission markets, and how to deal with, identify and address a variety of risks in the energy industry,” Lawrence tells us.

He moderated a panel on nontraditional entrants like hedge funds, institutional investors and private equity folks. The general sense was that these new players are being welcomed with open arms. “The market and trading are still maturing, and hedge funds, financial institutions and capital players are critical to the industry. They have strong balance sheets and are necessary now to deal with a variety of risks, price volatility and restructuring needs.”

But balancing that excitement for getting down to business, the conference heard a continuing drumbeat for certainty in terms of regulatory oversight and market mitigation. Several speakers were peppered with questions along the lines of: When will we get certainty? How will resource adequacy be judged? Where’s the energy bill? “Regulatory uncertainty was addressed in all the panels. It causes contractual and financial arrangements that may be imprecise, redundant and therefore inefficient,” Lawrence said.

The Risk Desk

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New Risk Book

For All of You Who Have Been Screaming for More Books that tackle energy risk-management issues head on but lack a PhD to decipher the more quantitative aspects of the process, hope is on the way. We hooked up with Andrew Hyman to discuss his latest work on the subject. Untitled as yet, the approximately 250-page book is slated to go to press sometime in late Spring and is offered by PUR, Inc. While centered on general principles of risk management at energy companies, the goal, Hyman says, is to provide a primer on the subject to board members, investors and other non-trader types who need to know this stuff.

“The book will help to define and explain certain risk processes and operational and corporate strategies that investors need to know before they commit, and board members can use it to better understand the company they sit on,” Hyman says.

The book opens with a general statement on why companies need good risk-management policies and practices and then segues into the Enron fiasco, the market Bubble and the rest of the mess we all sweated through over the past few years. The book moves into risk specifics, definitions, best practices, and includes lots of examples and anecdotal stuff. The book is more or less in layman’s terms, although if you’re not at least somewhat familiar with financial markets, energy markets or current events, it may take a little longer to digest. But for all you energy and risk newbies, Hyman also provides one of the bigger glossaries and reference bibliographies we’ve seen. Bottom line, he says, is that risk is all around us, whether we’re talking market, price, operational or whatever. The trick is to recognize it, understand how to best mitigate it and keep on top of it.

As a general reference, this book should do the trick, much like Hyman’s previous work, a joint effort with his father, industry mega-analyst Leonard Hyman: *America’s Electric Utilities: Past, Present & Future* (PUR, 2000).

Andrew Hyman is currently the marketing director for Fiske Walter Capital Management Ltd., a commodity trading adviser in Chicago. For more on his forthcoming book, e-mail Hyman at teva@prairienet.org.



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(CYBER SECURITY from page 1)

ting and distributing power. Distributed Control Systems (DCS) allow a small number of operators to control a power plant. Supervisory Control and Data Acquisition (SCADA) systems control and monitor the transmission and distribution of power across a wide area from a control center. These systems control a process that has serious human safety implications and are essential to the critical infrastructure.

Control systems have many unique aspects that aren't found in a corporate network, from protocols and equipment used to control the physical process, commonly via measurement and actuation, to special performance and availability requirements to prevent downtime or delay. But these same control systems also have much in common with corporate computer systems that are constantly under attack. Control systems are increasingly connected to the enterprise network, which is connected to the Internet. Key components of control systems run on Windows and Unix operating systems.

Forward-thinking industry experts were worried about a cyber attack on control systems prior to the year 2000, but this was not widely embraced as a real concern.

All this changed after Sept. 11, 2001.

The industry was faced with the reality that a sophisticated and dedicated adversary wanted to damage the US and other countries. The ease at which a cyber terrorist could knock out large portions of the electric grid became a real concern.

The Northeast blackout in August 2003 was a second wakeup call because computers and applications failed to work properly. The investigation found no evidence of a cyber attack causing the blackout, but the incident highlighted the potential for a future attack.

These serious threats, along with the ubiquitous worms, viruses and general hacking faced by any computer user, underlined the need to insure appropriate cyber security measures are in place to protect the DCS and SCADA systems essential to the generation, transmission and distribution of electricity.

NERC Steps In

The North American Electric Reliability Council (NERC), with its stated mission of ensuring the reliability and security of the bulk electric system, was the logical choice for regulating cyber security for the electric sector.

The need was so critical that NERC did not follow its typical process for developing a standard. Instead, Urgent Action Standard 1200 – Cyber Security was issued in August 2003 and renewed in August 2004.

During this two-year period, NERC worked on a longer-term solution, now split into eight critical infrastructure protection (CIP) standards:

- ◇ CIP-002 Critical Cyber Assets
- ◇ CIP-003 Security Management Controls
- ◇ CIP-004 Personnel and Training
- ◇ CIP-005 Electronic Security
- ◇ CIP-006 Physical Security
- ◇ CIP-007 Systems Security Management
- ◇ CIP-008 Incident Reporting and Response Planning
- ◇ CIP-009 Recovery Plans

While implementation is likely to vary a great deal by sector, the underlying requirements could be used in any industry with little modification. The NERC CIP requirements are

similar to banking, e-commerce, health care or government best practices. They require:

- ◇ A cyber security policy;
- ◇ Employee security training and awareness;
- ◇ Disabling unused network ports/services to limit what can be attacked;
- ◇ Strong passwords (a mix of character types of sufficient length that would be hard for a person or program to guess) for user authentication; and
- ◇ Monitoring the security perimeter and critical assets for attacks.

Measurement and accountability are key features of the CIP standards. Each standard includes the audit requirements to achieve compliance and requires a "senior management officer's approval," which will certainly help achieve management buy-in to cyber security.

NERC chose to be very general in the requirements, rather than state how to meet each requirement. It's certainly easier to achieve consensus on general requirements and meeting them is bound to improve cyber security to some degree. But a lack of specifics also means a company could be compliant from an audit standpoint without necessarily achieving the intended goal: security.

The standards and related audit requirements apply only to "bulk electric systems," and most organizations already know if they are subject to NERC standards. But electric systems that don't fall under NERC's "bulk electric system" definition would have a cyber security program if they voluntarily comply with these standards.

To take this a step further, other critical infrastructure fields, such as chemicals, oil and gas and water, could use these standards until a more applicable one is developed for their industry.

Complying with NERC CIP

All organizations fall into one of five stages in the evolution toward compliance with the NERC CIP or other compliance mandates such as Sarbanes-Oxley, ACC's Responsible Care or HIPAA.

Stage I No clear understanding of the organization's risks and liabilities in relation to cyber security.

Stage II General understanding of risks and liabilities, but cyber security as a program is ad hoc and purely reactive.

Stage III Cyber security is defined as a program with a clear understanding of risks and liabilities somewhere within the organization, but is highly dependent on individuals.

Stage IV The cyber security program is implemented as a cross-functional process and generally understood throughout the organization, with minimal dependence on individuals for its perpetuation.

Stage V The cyber security process is measured by the organization in terms of the human and technology costs, incident response times and standardized reporting involved in mitigating critical vulnerabilities and responding to attacks as they happen.

As a rule, organizations rarely jump over stages in implementing cyber security programs without help from external suppliers. A common mistake made by organizations is to aim for Stage IV when starting at Stage I or to aim for Stage V when starting from Stage II. Implementing a robust policy, coordi-

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nated with a process enabled by predictable, automated technologies and reporting mechanisms, takes time internally.

Yet the NERC CIP compliance schedule will require just such a jump for many electric systems. The CIP standards are scheduled to become effective on Oct. 1 and electric systems must comply, in varying degrees, as soon as the first quarter of 2006. Given the current level of comments on the drafts, this schedule may slide but probably not more than a couple of quarters.

Fortunately security technologies and processes have evolved considerably over the last five years. Vendors offer a range of tools, technologies and fully automated outsourced processes that can speed the CIP compliance effort. These products and services need to be factored into the cost estimates.

The cost of complying with NERC CIP varies significantly depending on which stage the organization is at. The size of the organization also matters, but given the fixed costs associated with continuous monitoring of the network by trained IT and SCADA Security personnel, the size matters less than the stage.

Key components of cost of complying with NERC CIP include:

- ◇ Policy and procedures development and implementation;
- ◇ Dedicated security personnel, 24x7x365; and
- ◇ Intrusion detection and monitoring.

Policy and Procedures Development and Implementation

Security policies and procedures provide the enabling “glue” to bind a sustainable, scalable security program. Operational procedures span change control, configuration management, patch management and back up and recovery in relation to overall information security policies.

For organizations at Stages I or II, the consulting fees alone to develop and implement robust policies and procedures start at \$50,000 for a small utility operation and \$500,000 for large utilities. Stage III organizations can expect a 30 percent lower entry point given the running start they have toward the definition stage of the work. Their expenditure is required to roll out effective training programs with demonstrated results. Stage IV and V organizations likely will not require outside services to continue improving themselves in relation to NERC CIP and other mandates.

Dedicated Security Personnel, 24x7x365

At any stage, personnel costs generally dwarf technology costs, since companies must staff an incident response process with dedicated personnel, 24x7x365. Typically, personnel costs represent 70 percent of ongoing resource requirements. Furthermore, the expertise required to staff these positions is in relatively short supply given the specialized skills associated with installing, managing and monitoring network security systems. Outsourced managed security service providers (MSSPs) have emerged as a result of the opportunity to aggregate expertise for application across hundreds of networks from security operations centers designed to deliver these services.

The average cost of a fully loaded, full-time-equivalent trained security professional is \$120,000 per year, assuming a base salary for a certified information systems security professional of about \$85,960, plus overhead costs of approximately 40 percent over base. Assuming a minimum of three FTEs are

required to staff a continuous incident response process, \$360,000 per year or \$30,000 per month is the minimum entry point for any size organization to fully comply with not just NERC CIP but Sarbanes-Oxley and HIPAA.

These security professionals must review anywhere from 2,000 to 3,000 alerts per year, or 5 to 10 a day, if network security devices are properly tuned to reduce the number of false positives they generate. When devices are not properly tuned, the volume of alerts is overwhelming. For instance, organizations at Stage I, II or III often install intrusion detection systems (IDS) but tune them into a state of irrelevance for lack of time.

Intrusion Detection and Monitoring

CIP-005 requires all bulk electric systems to have a 24-hour intrusion detection capability to detect intrusions and intrusion attempts at the electronic security perimeter and on critical cyber assets. For utility companies, specific IDS signatures have been written with funding from the Department of Homeland Security Advanced Research Projects Agency (HSARPA), to identify attacks embedded in SCADA and DCS protocols. These signatures are primarily focused on the MODBUS TCP and DNP3 protocols, which are widely used in the electric industry. A single IDS sensor can identify attacks on Microsoft operating systems and SCADA field devices such as IEDs and PLCs.

Organizations will require a minimum of one IDS, and larger enterprises will need up to four. Costs start at \$40,000 to \$50,000 for typical enterprise-grade vendor-supported products.

Monitoring technology used internally by an organization, typically referred to as Security Information Management systems (SIMs), ranges widely in cost. But they typically start at \$100,000, including systems integration fees, for any organization large enough to deploy the technology. According to the Gartner Group, the cost and complexity of using SIM tools put them out of reach for all but the top 20 percent of the Fortune 1000. SIMs collect syslog events, Windows event logs, SNMP traps, firewall logs and other information from all the security devices in the organization, store that information in a common database, analyze it and present it in a format that is easier for security specialists to interpret.

All or part of the intrusion detection and monitoring can be outsourced. For example, the management and monitoring of an IDS sensor can be outsourced for \$750 to \$1,500 per month. Management and monitoring of the protection devices, such as firewalls, and monitoring of key servers that are designated as critical cyber assets can also be outsourced. Most of the outsourced services allow full visibility of the monitored information so internal resources can be as involved as they need or want to be.

Vendors provide reporting tools for each set of products monitored, such as firewalls and IDS devices. Alternatively, reports are provided as a standard part of MSSP services. Most importantly, reports must provide an uninterrupted audit trail for review by internal and external auditors.

Conclusion

The NERC CIP standards will be in force shortly. The requirements are very similar to best practices found in other industries, but the implementation will need to take into account the critical availability and performance requirements in a DCS or SCADA system. Given the approaching deadline, bulk electric systems will need to find the right mix of products and ser-

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vices to implement an effective and compliant cyber security program in the available timeframe. They also need to keep an eye on the long-term cost implications of these decisions.

The authors can provide any additional information about the tools and services needed to comply with NERC requirements or to beef up cyber system security.

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(CFTC ROUNDTABLE ON CPOS from page 1)

ket – the time-honored *daisy chain* event – was mentioned and discussed from every possible angle. And from the chorus of well-wishers from both sides of the bench that day, anybody listening could only conclude that the chances of such a thing happening are pretty remote. But, like everything else in the universe, not entirely impossible either. We were particularly impressed with presentations by Dr. David Mordecai of REL Capital, MotherRock's Bo Collins and a good bit of research by Dr. Michael S. Haigh, a Senior Financial Economist with the CFTC's

Office of the Chief Economist. His presentation, "A Study of Managed Money Traders' (MMTs) Participation in the Energy Futures Markets," offered a pretty clear view, quantitatively anyway, of where funds sit in the greater scheme of things. Think of it as a follow on to the recent NYMEX report on similar topics – if you compare the selective timeline of the NYMEX study and Haigh's own summary, you'll have a pretty good picture of the true nature of funds and vols in the energy space. His presentation is available online.

PARTICIPATION IN THE MARKET (OPEN INTEREST)**NATURAL GAS**

Participant category	# of participants		# active days		% active days	
	active	very active	active	very active	active	very active
AD	81 (76%)	39 (37%)	152.9	215.1	69.9	91.4
AM	5 (38%)	3 (23%)	159.6	217.3	73.0	97.1
AO	29 (69%)	7 (17%)	105.2	213.6	47.6	90.8
AP	15 (71%)	5 (24%)	106.9	156.4	57.3	86.6
AS	20 (95%)	8 (38%)	159.1	229.5	67.5	91.2
FA	3 (100%)	1 (33%)	105.0	107.0	62.8	82.3
FBT	41 (48%)	24 (28%)	167.4	226.9	71.9	90.8
FS	2 (100%)	1 (50%)	182.5	254.0	67.6	94.1
LF	1 (100%)	-	134	-	74.0	-
MMT	68 (46%)	22 (15%)	104.8	172.4	55.1	88.6
NRP	42 (22%)	18 (9.4%)	93.8	136.0	65.8	91.7

CRUDE OIL

Participant category	# of participants		# active days		% active days	
	active	very active	active	very active	active	very active
AD	74 (70%)	35 (33%)	150	217	69	92
AM	20 (67%)	12 (40%)	151	200	77	96
AO	8 (47%)	2 (12%)	74	107	54	85
AP	13 (72%)	9 (50%)	177	219	78	96
AS	20 (75%)	15 (60%)	171	206	81	94
FA	1 (100%)	1 (100%)	119	119	99	99
FBT	58 (65%)	42 (47%)	139	162	80	92
FS	1 (100%)	1 (100%)	254	254	94	94
MMT	85 (49%)	28 (16%)	104	168	55	86
NRP	48 (17%)	17 (6%)	83	131	60	92

Notes: active = participants that actively traded for more than 25 days, very active = participants that also traded more than 75 percent of their total days in the market. For example, a participant may be in the active group because he changed his positions on 25 days, but if he held passive large positions in the market for an additional 75 days (thus was in the market for a total of 100 days), he will not qualify as a very active trader as his active days constitute only 25 percent of the total days. Figures in parenthesis represent percent of active and very active traders of the total number of unique traders (from Table 4). # active days and % active days represent averages across participants in each trading category. Total number of days in the sample is 270. % active days is the number of active days as percent of total number of days in the market. AD = Dealer/Merchant, AM = Manufacturer, AO = Agricultural and Natural Resource, AP = Producer, AS = Commodity Swaps/Derivatives Dealer, FA = Arbitrageur or Broker/Dealer, FBT = Floor Broker or Floor Trader, FS = Financial Swaps/Derivatives Dealer, LF = Livestock Feeder, MMT = Managed Money Trader, NRP = No Registration.

(SHIPPING FUTURES ON NYMEX from page 1)

The first few folks we spoke to on this matter called these new derivatives a “speculator’s dream.” After we read up a bit on the size and status of the global crude fleet, we can see why. The shipping business is not what you’d call a transparent sector, but it is excruciatingly finite. As such, demand for cargo space has skyrocketed in the past couple years – seems demand is outstripping supply in every aspect of the crude market, the shipping side in particular. We put in a call to former energy trading desk chief Neil Levy on the subject – turns out he’s consulting with a number of companies right now to set up desks to trade this stuff. Before he set up Morgan’s power and gas desks in the mid-1990’s, he worked the cargo and fuel space for CSX.

In Levy’s view, this new contract fits beautifully with NYMEX’s current coal and gas futures. “These new derivatives should see some serious growth. The OTC market for these hedges has seen significant growth; it’s a very smart move by NYMEX,” he says.

Courtesy of McQuilling Brokerage Partners, a global ship-brokerage, and transport consulting subsidiary McQuilling Services, we accessed a bunch of interesting reports on the state of the global cargo shipping sector, supply, demand and related analysis. NYMEX has indeed jumped on a hot one. We recommend all readers go to www.mcqservices.com and check out reports like *Tanker Availability*, *Tanker Market Outlook February 2005*, *Outlook 2005-2008* and *Tankers: Tonnage Supply Summary January 2005*.

The good news, according to McQuilling, is that new ships are coming on line at a relatively brisk rate. The current fleet stands at 2,908 vessels, totaling about 307 million dwt. That’s a 25.7 percent increase in fleet size since 1991 and a compound growth rate per annum of 1.65 percent. “This year we expect a net change (additions less deletions) of 216 vessels to the total trading tanker fleet, an increase of 7.43 percent from the fleet as it stands today. In deadweight terms, this represents an increase of 8.59 percent. By any measure, the industry is facing a considerable growth in tonnage this year,” the company says.

Unfortunately, the decommissioning of tankers is also occurring at a relatively brisk rate. New international standards on double hulls and so forth mean that hundreds of the older

Weather Reports for LNG

EarthSAT Has Launched a Whole Spread of Weather Services and Reports custom-made for the burgeoning LNG sector. And sales have been steady, according to Chris Hyde, a meteorologist and manager for energy weather product sales.

The *Energy Shipping Weather* product covers weather outlooks for the major ports, major shipping routes, the North Sea, Baltic, Atlantic and so on. Included are wave heights, fog and ice forecasts for the next 72 hours and any port closures.

“This is still a relatively young market, but the growth is there. We see a lot of requests for custom reports due to the recent growth in the LNG markets,” Hyde says. “You name the region and we can do it.” He says the *LNG Weather Product* outlooks and forecasts have been available for the European markets for a couple years, and recently they revamped the product to include Asian points.

This one-page LNG daily product offers a detailed look at the weather situation through the 1-30 day period in Japan/Korea and Europe. Forecast confidence is issued along with the maximum and minimum specific city temperature forecast during the one-10-day time frame. The daily reports are e-mailed (PDF files) to customers each morning. For customized products, contact Hyde for a free consult at chyde@earthsat.com.

For more information on entire suite of energy-related products, go to <http://www.earthsat.com/wx/energywx/dailysvc.html>.

floating rustbuckets will be converted into paper clips and coat hangers pretty soon.

“Our calculations show that between 2006 and 2010, the total tanker fleet will increase by a token 12 vessels, a percentage change of only 0.38 percent when comparing fleet size as at December 31, 2005 to the end of 2010. Of particular note for the 2006-2010 period is a huge exit from the fleet of 156 VLCCs [very large crude carriers – a crude-oil tanker of at least 200,000 tons deadweight], as compared to a projected increase of only 126 VLCCs. This indicates a loss of just over 4 million dwt, a decrease of 3 percent in carrying capacity from 2005,” McQuilling reports. “The figure of 126 additions, however, represents an average of 25 vessels per year, which is in line with historical averages showing that IMO phase-out legislation is the main factor determining the net growth of the VLCC fleet...”

And how do you spell v-o-l-a-t-i-l-i-t-y?

“With regard to tonnage supply, this is likely the greatest variable in the equation as actual annual exits from the fleet are uncertain and largely a function of freight market outlook...”

The world is estimated to be way short big transport vessels – by something like 25 percent – in the next 18 months or so.

Our suggestion is to contact NYMEX and get the scoop on this new offer ASAP; call it a hedge (ahem) or call it a pure spec, but the volatility of this niche market will soon lift off to levels only an energy trader would consider respectable.

We read in a recent wire story that shipping rates are now about 10 times the break-even point for tanker owners. Ouch.

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*Based on the ENERGY Business and Technology Magazine, Feb 2003

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(GRAVES-BARROW BILL from page 1)

Joe Barton, R-TX, for a look-see last week, we probably wouldn't be writing this story. Whether or not this bill sees the light of day later this session is an open question, but the market reaction to it is a bit hostile. The bill is being pegged to the ag committee because the Commodity Exchange Act (CEA) falls under the committee's purview, and the CEA is up for reauthorization this year.

We suggest you download a copy of the bill to see the full extent of changes Graves and Barrow are suggesting for the CFTC, futures exchanges and the gas market generally. Despite the fact the CFTC has consistently stated it is on top of monitoring hedge funds, gas price volatility and the like, these two lawmakers think otherwise.

The main bits that have most market-watchers up in arms include the following: The bill would limit the maximum daily price fluctuation on any gas futures contract to 8 percent (in either direction) from the prior day's settlement price; require the CFTC to prescribe rules requiring any person holding positions in natural gas contracts (either on a contract market or in the over-the-counter market) to file position reports either on call or continuously, depending on the whims of the CFTC; increase the criminal and civil monetary penalties for violations of the CEA to a maximum of \$1 million for each violation and up to 10 years in prison, compared to the five years in prison set under current law.

Much of the trouble in the market, the two congressmen argue, has to do with the passage and implementation of the Commodity Futures Modernization Act of 2000 (CFMA). As

such, this new bill somewhat rolls back many of the changes in the CFMA.

Statements from both congressmen suggest the basic motive behind the bill is that natural gas is too expensive, which means fertilizer is too expensive, which means farmers are getting pummeled price-wise. "Congress needs to step up to the plate and take the lead in helping get natural gas prices under control," Barrow said in a statement. "Back home in Georgia, farmers all across my district are facing skyrocketing fertilizer prices. They're not only struggling to raise the crops that feed our country, they're fighting just to stay in business."

Apparently, price and vol limits are the answer.

Last week we asked the *Desk Chiefs*, our internal list of 25 senior trading and risk execs, company officers and associated market leaders, what they thought of the Graves-Barrow bill and further, what they thought its chances were for becoming law. *The responses we receive from members the Desk Chiefs list are not attributed unless noted otherwise.*

One desk chief we heard from, Risk Capital Management's David Shimko, said, "This reminds me of the time the farmers picketed the Chicago Mercantile Exchange in their tractors. Their view of markets was naïve, though their pain caused by low output prices was real. In that case, they blamed the speculators in futures for driving *down* prices. If this were the case, they should either stay out of futures markets or buy futures at the depressed levels."

Shimko says that daily price limits simply do not work. "When the market moves the limit in any direction, trading closes. It is not as if people trade at limit up or limit down. When it closes, liquidity ends...and the purpose of the market is unfulfilled. Volatility is not reduced, only the appearance of volatility, since the printed prices are less volatile. The fact is that energy is volatile these days and futures markets are sensitive to facts now (and in the future), and even market whims. But if the futures market closes (which is what limits effectively do), then we take away the ability of producers and consumers to fix prices and reduce their risks. That is, our crude attempt to reduce risk will actually increase risk and reduce liquidity for participants."

Shimko took little issue with imposing more extensive position reporting, unless the cost of reporting becomes onerous. "But," he says, "the question is, what will be done with this reporting? If the congressman's constituents want lower gas prices, the risk is that enforcement will go after the bigger longs in the market. If this can be prevented, and position reporting can help exchanges monitor and enforce existing limits, this seems reasonable. Because of the high cost of this, however, it might be better to require participants to keep position records that could be called for after the fact in enforcement actions to investigate allegations of market manipulation."

For some desk chiefs who have had the pleasure of living through past speculator witchhunts, the first question they seemed to ask was: "Who are these congressmen?" "Who is their constituency?" "What's the name of their favorite PAC?" Cynical? Maybe.

"Of course it's cynical, but how else can you explain why a couple assumedly intelligent lawmakers would write a bill featuring things that most economists, regulators and anybody

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(GRAVES-BARROW BILL from page 7)

else familiar with how markets work, know to be completely wrong,” said another desk chief.

“You have to please the folks back home if you want to spend another term in our nation’s beautiful capital,” said a Houston-based desk chief. “Sometimes this pleasing has to take the form of asking for what you know is not smart, right or achievable – just so you can face those folks back home and say, ‘I tried, I did my best but my uneducated colleagues just won’t see the light.’” This chief says it’s hard to believe that any moderately well-educated student of history would actually propose commodity price controls. “Does anyone remember the shenanigans that followed Richard Nixon’s attempt to control energy prices in the seventies?”

“The concepts [Graves-Barrow] are presenting have been routinely debunked by great thinkers like Alan Greenspan. In my short career, this contagion of blame happens so often it is becoming comical,” said another desk chief. “High prices are the fault of _____... just fill in the blank with traders, hedge funds, speculators, institutional investors. Is it possible that these gentlemen and their staffs are completely unaware of the voluminous studies of markets over the last 50 years and have chosen to completely ignore proven principles of economics in favor of their own brand of policy wonkism most studiously sorted out at the last fundraiser they attended? I don’t think so. I view this bill as simply pandering to political cronies.”

“This bill is so bad, it must have PAC money attached to it,” another desk chief says. “I would bet [they] don’t even care so much if it passes. They really only care that they got the opportunity to put out a few sound bites on behalf of the poor manufacturers, seniors citizens and farmers. Everybody’s a winner. More votes. More money. Nothing passes. Start the whole thing over next year...”

Ouch.

Will it pass? “Not a chance,” was the collective response of 17 desk chiefs.

The chiefs generally accepted the provisions in the bill that speak to upping penalties for mischief and, to some extent, the additional reporting requirements were also regarded as not such a terrible thing.

“However, if they want to dampen speculation in the marketplace, the most effective way to do that is to empower the marketplace to profit from speculative excess. The most effective way to do that is to provide for additional transportation and storage. More than one LNG site deliverable into the NYMEX Henry Hub would also help. If speculators want to squeeze shorts by running prices to \$11, let them feel the pain when someone with gas in storage or deliverable LNG starts shorting those prices and has time to deliver against their short position,” another desk chief suggests.

“The problem with the deregulated energy marketplace as it stands now is that it hasn’t matured. Inefficiencies still exist and, as we all know, speculators profit from inefficiencies in marketplaces. It’s part of the job description. The question that should be asked is whether the proposed bill makes the market more efficient (a long-term solution) or whether it simply adds a layer of regulation and leaves the current structural inefficiencies in place (a long-term problem).”

This desk chief goes on to say that speculators in more mature marketplaces such as foreign exchange and government securities have active central banks to contend with. In effect, there is a provider of liquidity at times of excessively high prices and an entity to remove liquidity when prices are excessively low. “Give me enough storage and pipes to deliver gas into or take delivery from select hubs. I’ll provide the balance sheet. Problem solved.”

Another chief reminds us why the NYMEX got rid of their “circuit breakers” to begin with. “It was because of Enron Online. Back in the day, the market would move 8 percent and the NYMEX would have to shut down for an hour. But EnronOnline didn’t have the same limitations...and more and more trading moved towards EOL.”

This, of course, turned out to be a great solution to market woes. “Setting position limits is ridiculous. What if financial players decide to ditch the gas market because they decide all this regulation isn’t worth it, and they start playing in other markets? Then liquidity dries up and the bid-offer spreads will widen. When that happens, then you’ll really see the farmers screaming...”

“So let’s say you are International Paper and you need to hedge \$1 billion of gas a year. Under this bill, you would need an exemption. Give me a break. Second, if you have to file, would it be public so all your competitors can see where you are buying gas and then undercut you in price of the end-product and steal market share? This is total nonsense.”

Another desk chief we heard from, one that has a couple dozen years under his belt in the commodity markets, said that “at a very basic level, bills like this show a very clear ignorance of how markets work. They reflect an underlying implicit belief that markets don’t work and that price moves cause volatility rather than the other way around. Movements in prices reflect volatility. It’s like saying the clear bright sky made the sun come out instead of the other way around. The tighter limits, in the long run, probably won’t have much of an impact. When the limits are hit, cash/physical trading would still occur, albeit much less efficiently without the transparency afforded by NYMEX. When that happens, those hurt the most will be those who pushed for the legislation, i.e., all those who don’t actively participate in the OTC/cash/physical markets and look to NYMEX for liquidity and transparency. In the short run, there will be chaos analogous to trading during a war or during a hurricane.”

A final question we asked the chiefs: What if the bill became law, then what? The following list comes to us from a US-based fund chief.

1. NYMEX seats go to \$3 million/per seat.
2. ICE floats IPO at double what is currently scheduled.
3. Traders figure out a slightly different way to make the same amount of money. It takes them about one day to adjust.
4. Natural gas and other products become more volatile.
5. Prices continue to react to fundamentals.
6. Barrow and Graves get re-elected.
7. Prices may go down, as is the cyclical nature of markets, but funds probably won’t be blamed.

(CLIMATE RISK MANAGEMENT from page 1)

bal warming exists and how the US government should respond.

According to Ceres President Mindy Lubber, the big institutional investors have decided that if you're an energy business that isn't addressing carbon emissions reduction, you are creating an unacceptable financial risk to the value of shareholder dollars.

"The investors are concerned about this issue for one reason: the value of the company and the returns they can get for their pension years," she said.

Driving it all is the expectation that states will soon put in place carbon emissions reductions regulations (some already have) and the EPA will act to further limit other pollutants like SO₂, NOX and mercury. As the Ceres report says: "The electric utility industry is the largest source of GHG in the US, responsible for 39 percent of man-made CO₂ emissions and thus a likely target for regulation... These future air and climate regulations present a significant economic risk to the companies and their shareholders – and the risk must be managed well."

A general lack of state and federal action on carbon emissions has created crippling regulatory uncertainty about new power plant investment, and "it's critical for companies to explain to shareholders how they plan to navigate the uncertain regulatory environment," the report says.

Lubber said regulations two or three years down the road could require radical and expensive makeovers for new power plants into which companies are currently sinking hundreds of millions of dollars. "An amount of shareholder value could be found to be stranded costs. No smart companies want to be stuck with stranded costs," she said. "All of this calls into question the kind of planning that must be done to assess climate risk."

Four of the country's top 50 "emitters" are actively working on the issue, and three – AEP, Cinergy and TXU – have already issued shareholder reports on climate risk. Ceres analyzed those three reports to create a sort of "how to" document for the rest of the industry. The remaining 43 of the top 50 will be receiving letters from major shareholders next week that call on them to make climate risk disclosures.

Is it a bluff? Would a mega-pension fund like CalPERS really pull out of utilities, the traditional safe bet? The answer may not matter. The fact is that when the big public pension funds talk, investor-owned companies listen. Ceres' three-year-old Investor Network on Climate Risk represents 30 major US public pension funds that manage more than \$1 trillion. And the fact that \$80 billion in new coal-fired generation is in the works is not sitting well with them.

"In every case, those investments will be impacted financially when carbon regulations are eventually adopted," Lubber said during a press call Thursday. "Cinergy, AEP and others acted because they've been smart business people thinking [a climate risk disclosure] is good strategic planning for their company."

Cinergy has called on the government to simply issue GHG emissions limitations and end the uncertainty, so the energy industry can get on with its business. The sector needs to look six to 12 years down the road when it decides to invest in new generation, and a lack of regulatory action is gumming up

the works at a time when power demand is skyrocketing. The companies don't want to make major long-term investments because they can't do the math yet: How much will GHG emissions cost? How will emissions trading permits be allocated? How will this affect the value of emissions-generating assets? How will all this affect revenues?

If companies make the wrong investment decisions now, it may be more expensive for them to comply with unknown future emissions regulations. That's going to hit the bottom line.

A major Cinergy investor, The Mission of Responsibility Through Investment of the Presbyterian Church, used shareholder resolutions to prompt the energy company to develop its climate risk disclosure. The church has an \$8 billion portfolio that it invests in socially responsible companies that reflect its values. During the press call, the Rev. William Somplatsky-Jarman highlighted the need to secure both the future viability of the planet itself and the retirement of the church's pastors and other employees.

Somplatsky-Jarman said the Cinergy disclosure gave the church as an investor "the assurance that the company is being well-managed, it's forward-looking and it is planning well into the future of how it will help us as a society to address climate change." He added that, beyond encouraging power companies to address climate risk, the Ceres report hopes to prompt Wall Street analysts to "recognize the value of this data and use it in their work."

Cinergy VP John Stowell worked with Somplatsky-Jarman to produce the stakeholder report. "We really want to start a dialogue that will lead, hopefully sooner rather than later, to some regulatory rules of the road in which we can adequately plan for the future needs of our customers," Stowell said.

Cinergy is concerned that its voluntary reductions get the credit they deserve when regulations for baseline emissions limits are put in place, but he says the investments the company is voluntarily making in carbon sequestration and energy efficiency save money in the long run regardless of how the regulatory program looks. And it gets the company out ahead of the competition.

"One of the things we are trying to do through this voluntary program is learn how the carbon markets are developing in Europe and how they'll develop on the two coasts. We want to get our traders, operators and administrators smart so when the regulatory program comes, we're ready."

When the regulations do eventually arrive, Stowell expects a cap-and-trade program. The kind of carbon tax proposed last week by Duke CEO Paul Andersen was shot down under the Clinton administration, but the cap-and-trade mechanism is a known quantity to politicians that's been "a proven compliance strategy for other pollutants," he said.

Stowell had some advice for his energy sector brethren: "There was a lot of sweat equity in this report [but] we are a better company for having done it," he said. "Don't be afraid to produce one yourselves – you'll find it will be helpful."

Download the full Ceres Electric Power Climate Risk Disclosure report at <http://www.ceres.org/pub/publication.php?pid=59>.

(LONG AND WINDING ROAD from page 1)

pendent, central data repository for energy price information for several months in late 2002. At the time, they rationalized that such a nonprofit entity could quite possibly fix all sorts of market woes.

Also at that time, the CFTC and FERC were aggressively pursuing mischievous traders and trading companies for what some dubbed “Indexgate.” For years, dozens if not hundreds of traders had been submitting bogus transaction data to publishers in an effort to manipulate reference prices. Once the various schemes were found out, the results were swift: Few companies trusted published indices and fewer were submitting data to publishers. To this day, reported transaction volumes are nowhere near what publishers boasted three to five years ago.

The data hub was the answer, Bell and Pirrong said, and soon kicked into gear a concerted effort to preach the new index gospel to anybody who might listen. Pirrong made a dozen speeches to industry groups and regulators on the concept, and Bell worked the back channels, soliciting support from trade groups, House members and regulators. However, over the course of the next year, the idea seemed to lose momentum as the market began to show signs of life again. Publishers reported that trading companies were beginning to submit data again under newly established standards.

But the skinny among insiders was that until FERC openly blessed the hub concept, it probably wouldn’t happen. Such radical change in a traditional market process had most players a bit edgy, insiders said, unless of course FERC gave a thumbs-up. Well, the overt blessing never came. And at the same time, most publishers had been working hard to retool their own internal processes, in order to build confidence among trading companies. Platts implemented some significant changes to their age-old index process, much of which was copied by other publishers. Though the data hub concept was still alive toward the end of 2003, its principle backers were beginning to move on to other things – the Houston exec and the Univ of Houston professor found out how incredibly frustrating it can be to press an issue through the proper channels in Washington. During this

period, incidentally, several other firms presented alternative models to the market for a data hub-like entity, but these proposals also never gained traction.

In the fourth quarter of 2003 we ran into Bob Anderson at a FERC technical conference. Anderson had recently left EP, where he was head of global risk. His latest gig, which was little more than a paper company called The Energy Data Hub, Inc., was the reincarnation of the original concept, with a few alterations. The main change was his plan of attack: Anderson would work the idea from the inside out, and then go after policymakers and interest groups. The approach sounded like a winner to us. But just as Bell did, Anderson moved on. In early 1994, he became the new executive director of the CCRO.

At some point in 2004, lo and behold, a working group was established at the CCRO to research the whys and wherefores of a central data repository for transaction data. It seems that the hub education process started a year before by Bell and Pirrong and continued by Anderson had attracted a few converts within the CCRO. The new working group began looking at current processes at publishing companies. It looked at current volumes submitted, why companies still were not playing and solutions found in other industries, concept feasibility and set about drafting some new standards for operations. By and large, the concept was still alive, only now the process was being pushed by industry itself. Concerns about FERC blessings or Hill support or interest-group backing were suddenly subordinated to what a large number of industry players thought was a pretty good idea.

Since September 2004, the CCRO has been running a beta test of the hub concept focusing on expanding the number of companies participating in the demo and tightening up the operating standards. At long last, sources now suggest that several key Capitol Hill lawmakers and federal regulators have offered their tacit blessing of the CCRO data hub efforts. Despite the fact the market is roaring back to life and published indices are becoming more liquid each quarter, most folks we speak to agree that the process is still not fixed – transparency is still lacking, liquidity is still lacking and generally, the cost of commercial indices is still way out of hand. Companies still complain about paying tens if not hundreds of thousands of dollars for commercial index data, which they argue was theirs to begin with. Well, maybe. In any case, this is another reason we believe the CCRO data hub idea is gaining favor among CCRO members and lately, from companies outside that loop. If the hub is established by a nonprofit organization as now contemplated, it is believed that the fee structure for energy companies submitting data to the hub will be minimal.

While no specific timeline has been set, it was reported earlier this year that an independent hub entity might be legally established in the second quarter this year. So we contacted Ed Bell, now a consultant for Houston-based StratCom Advisors LLC, for his views on the thing and its potential in the newly energized market.

We should note that at present, a hub entity seems to have two potential paths to the market: First, the CCRO effort. Second, through language in the draft energy bill that would compel FERC to mandate natural gas price reporting and develop some sort of electronic system to play catch with the stuff.

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(LONG AND WINDING ROAD from page 10)

To date, this kind of detail isn't in the draft bill. This is why we understand the FERC isn't so keen on the idea. Right now, it's even money on whether this measure makes it to the final version of the energy bill.

"The CCRO connection to the data hub is unquestionably a positive step. It's an indicator that enough people actually got together on this... and critical mass was achieved. This is always the problem with this sort of effort," Bell says. "It's heartening to see something that we worked so hard on, so long ago, finally see the light of day."

He says in his previous research, both he and Pirrong found "plenty" of independent or near-independent pricing mechanisms in other markets that functioned to ensure transparency. "What the Sarbanes-Oxley experience has told American businesses – plus the added pressure from FERC and the CFTC on the energy side – is that there is no longer any room for a less-than-an-ideal situation when it comes to price transparency. There is no longer any wiggle room when it comes to price formation and the adoption of best practices; and this goes for publishers and trading firms."

He says that while publishers can take a bit of credit for shoring up their processes, the independent hub is nonetheless "the final evolution of a very long, painful process. This should by and large cure a lot of systemic problems the market has had for many years." The publishers' stopgap fixes over the past 24 months should therefore be viewed as *transition phase* to a new independent entity and market process, Bell suggests.

He says another reason this data hub will likely fly this time is that it won't actually be providing indices. This, he says, was a problem with previous incarnations of the hub concept.

"All they're signing up to do is to make sure the transaction data is accurately collected, matched and reported. And so they'll leave it to the market to decide what that means. And this will create a level playing field for all the publishers, analysts and others who study this data. Everybody will for the first time be working off the same data set, an industry standard set of data. What companies or publishers do with that data afterward is entirely up to them... they can create their own indices or curves, or they can buy them from somebody else. The barriers to entry, so to speak, are being knocked down. The last bottlenecks to greater transparency are being opened up."

We've spoken to a number of publishers and consulting firms that are developing products based on hub-like data, such as packages of curves and related analytics. "In the future, once more companies get comfortable with the daily submission process, I envision the reporting of more long-dated transactions. This in turn could actually fuel the development of a whole new niche set of players, focused on curve formation or other tools. As a result of this, and further standardization of processes, companies could end up saving millions of dollars."

As for Bell's role in the hub process, he says he simply remains interested in the debate and the outcome. "I still work in this industry and still believe an independent data hub can and will fix a lot of problems in this industry, and move it ahead much more efficiently. The buzz I'm hearing is that people are excited that the idea is starting to move again. It's encouraging to see the industry finally working together on something really positive, and not simply accepting the status quo."

Ed Bell can be reached at ed.bell@stratcomadvisors.com. For more information on the data hub working group, go to www.ccro.org.

FERC Chief Backs Data Hub

The Independent Data Hub Effort Being Pressed by the Committee of Chief Risk Officers "is an idea whose time has come," according to FERC Chairman Pat Wood. He lent his support in remarks at the US Energy Association's annual membership meeting in Washington. It caught a lot of folks by surprise, not the least of whom was CCRO chief Bob Anderson. It's been a commonly held position in several camps that in order for the data hub to truly make it into the mainstream, it needed this formal blessing of FERC.

We tracked down Anderson in Houston on Friday for a comment. He admitted the statement caught him off guard. He was aware that Wood and others at the commission supported the basic concept, although this was the first overt support the CCRO working group had received from the big bench.

According to notes provided to *The Risk Desk* by FERC on Wood's USEA presentation, the chairman said that it's "time for the industry to come together behind the independent data hub concept as put forth by the Committee for Chief Risk Officers. This hub would be a neutral aggregator of the vast majority of sales transaction data in this critical industry, useful to index publishers and all customers, providing support for long-term forward prices as well as current month deals..."

Later, Anderson went on to say that the CCRO is "excited to be getting increasing [member/corporate] involvement

in the hub working group; we've really made tremendous progress over the past few months. We've been extremely prudent to make sure all the technical details are taken care of..."

He says that as of now, CCRO is welcoming the participation in the data hub working group by members and non-members alike, energy companies, investment banks, hedge funds and others. "We're thinking about organizing a special informational session on the data hub around the time of the next CCRO member meeting on May 11-12, if we get enough outside interest. We welcome both members and non-members to participate in the working group, and this special session..."

If you're interested, contact Anderson directly at Bob.Anderson@ccro.org.

One question raised by several sources on this tacit approval of the data hub by Chairman Wood is what weight the comment will carry after June 30, Wood's final day at the FERC. Will his fellow commissioners or the new chief embrace a similar attitude toward the hub?

FERC spokesman Bryan Lee reiterated to us the fact that Wood had always been a supporter of the independent hub idea, "and as he said, it's time had come..." Lee thinks the chairman was speaking for himself on this point, not the other commissioners.

In additional remarks, Wood said that "we've gotten past the immediate crisis of confidence; it's time to get some

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efficiency and transparency. What's needed is a stable platform to build long-term forward curves. That's what we need for stability." It was in this context, spokesman Lee tells *The Risk Desk*, that the chairman stated that the hub was an idea whose time had come.

From our standpoint, the fact Wood made the statement at all suggests his fellow commissioners hold similar views on the hub. Wood has not been known to make public statements in the past that could potentially corner the other commissioners into accepting policy views they find untenable. And past statements by the other commissioners we managed to dig up all seem to support, or at the very least hold a neutral position on the hub.

(ROLES IN RISK from page 1)

everything from regulatory affairs to finance to operations and HR. This isn't necessarily a bad thing. As the market matures and more standards are embraced by a wider group of risk practitioners, we've been noting all sorts of new developments on the various risk desks. Call it a moving target, in a good way.

Our subject this week is a good case in point. Out of the blue we hooked up with Kevin Kremke, a risk guy we've known for several years. He was previously with NiSource, and since 2000, with Reliant down in Houston. We noted on his e-mail that his title had changed since last we spoke; he's a director for decision analytics. Further, instead of being in the risk management group, he's now attached to the CFO's office. What's decision analytics, we asked? The short answer is that he now has responsibility for developing an analytic framework for each of the company's key investment and financing decisions. For example, building the model and developing the commercial assumptions for buying and selling generating plants, or the decision analytics for refinancing corporate debt.

News to us.

"The way you characterized the evolution of the risk control function [as a moving target] is pretty accurate," he says.

Assuming Wood's statement is the shot in the arm the CCRO was waiting for, we recommend all current and future data or index suppliers plan for the day when all core transaction data comes from a single source. As such, your final index product output or the curves you will soon be producing will be judged on who has the best math behind the final numbers, or who has the strongest brand. Once the subjectivity of the traditional reporting/index process is finally taken out of the process, it's our opinion that the long-sought-after "efficiency and transparency" that Wood talked about will be within reach.

If the FERC will only extend the safe harbor provision (against fat-fingered mistakes) to the hub, which companies now enjoy for reporting prices to publishers, we will have a whole new ball game. And sources suggest to us that such a safe harbor statement may be forthcoming.

"The industry has essentially forced companies to treat the risk control group as just that – a purely control function – and that can relate to anything from managing price indices to regulation. Risk managers have a lot of new reporting responsibilities and functions, different stakeholders we're all reporting positions or controls to and so on."

As we noted, Kremke's new marching orders pointed him to an entirely new department, the finance office.

He says when he was sitting on the risk side of the house, it was pretty clear that finance could benefit from the new role, decision analytics.

"We created this new role because we saw a hole in organization. We have different groups [within finance or risk or elsewhere] working on different projects, all of which have some strategic value, but there was a lack of consistency between the groups. Like making sure we're all working off the same assumptions or models. This role was created to improve the strategic decision-making process at the company, to manage the complexity inherent in this business and to account for the uncertainty involved," Kremke says. We're trying to build better judgment and intuition into the decisions we make on a day-to-day basis. We may not always have the right answer people were after, but the models we build will at least drive intuition and build a better understanding of the inputs that drive the decisions."

Whether we're talking about investing in new assets, acquisitions or a new business line, Kremke says his unit's specific responsibility is to develop a general framework that supports each of the various internal stakeholders' duties. "For instance, we have a number of groups within the company that are responsible for plant valuation: people with responsibility with respect to FAS 142, others concerned with plant maintenance, and so on. In the past, everybody had their own approach to the project. Everybody may have been incentivized differently. Think of it like taking opposing positions in the same underlying commodity; it was all based on their individual views. The wholesale trading group might think the price of gas is coming off so they go short. But the asset valuation group thinks the price is going up, so they value the asset differently. You end up with opposing positions out of sync with corporate objectives. We force the consistency into the assumptions across groups, to build the framework for better decision-making," he says.

Sounds like traffic control. "Something like that. We're not involved in all projects, but for the ones we're tapped to work
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Event of Note

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Is There a 'Tipping Point' for Regulated Markets?

By Tom Lord, managing director, Volatility Managers, LLC

All the Current Discussion of Hedge Funds and Volatility has raised an interesting intellectual question: Is there a point where regulated markets become more economically efficient than open markets? The "value" of these markets can be compared.

Open market efficiency gain is presumed to rest on the increased efficiency of investment. So let's set the efficiency gain as "G." What does G consist of? The savings can be enumerated as:

- ◇ C_R , where this equals the reduction in cost of the regulatory apparatus;
- ◇ V_I , where this equals the gain to the overall economy of the increased efficiency of investment;
- ◇ C_P , where this equals the reduction in cost of the provider companies caused by the need for competitive efficiency;
- ◇ U_c , where this equals the reduction in uncollectable charges resulting from greater economic incentive to terminate nonpaying customers; and
- ◇ A_F , where this equals the cost of the implied free Asian options consumers receive and producers lose from regulated prices.

Therefore:

$G = C_R + V_I + C_P$, where C_R and C_P are positive for savings in cost.

On the other hand, the economic costs can be shown as L. What would the increased costs come from? Those losses can be enumerated as:

- ◇ WC, which is the increased need for working capital to manage the credit risk of open market price movement;
- ◇ P_T , which is the increased cost of purchase and sales transactions for third-party liquidity, open market operations and speculator profits (speculator losses are a negative cost); and
- ◇ O_I , which is the increase in labor, infrastructure and information sources necessary to manage price volatility in commodity purchases and sales – in electricity, this includes ISO and RTO costs.

Therefore:

$$L = WC + P_T + O_I$$

It is apparent that some portions of the energy markets are beginning to believe, correctly or incorrectly, that L is now greater than G.

The only point of the equation is to show that open markets are only more efficient if G is greater than L.

Open markets are more efficient if they keep their costs down.

When the commercial participants believe that L exceeds G, they will begin to invest money to leave that market.

Since volatility increases the L side of the equation and increases the gap between the market cost of hedging and the Asian option of regulation while also increasing the risk premium on investment on the G side, it appears that highly volatile markets reduce the apparent value of G relative to L.

In an instinctive way, market participants are likely to reconsider the valuations of G versus L that led to the deregulation of markets.

Lord can be reached at tlord@volatilitymanagement.com

(VIRTUAL SPR? from page 1)

The accompanying footnote says: "Crude Oil Stocks in the SPR include non-US stocks held under foreign or commercial storage agreements."

Non-US stocks held under foreign or commercial storage agreements? We thought the only gooey black stuff that can be counted in the SPR was stuff that was *actually* in the SPR. This footnote suggests that, for instance, a big barge somewhere in the Red Sea holding a crude cargo owned by the US federal government – and maybe earmarked for the SPR – could be considered part of the SPR. That would technically fit the description. If that was the case, it could mean that the SPR is actually an infinite, albeit virtual storage pool. It also could mean that all those hundreds of millions of gallons of crude we read about may not actually be in the SPR caverns along the coastline of the Gulf of Mexico. But according to the SPR Web site, "The Strategic Petroleum Reserve (SPR) is the world's largest supply of emergency crude oil. Emergency crude oil is stored in the Strategic Petroleum Reserve in salt caverns... created deep within the massive salt deposits that underlie most of the Texas and Louisiana coastline..."

Nowhere does it say caverns in the Texas and Louisiana coastline... and "elsewhere."

We asked several folks at DOE for some clarification. Seems the footnote was an oversight. Hmm. According to EIA's Steve Peterson, the footnote was a reference to something that occurred a decade ago and EIA simply forgot to lift the footnote.

"The footnote you referenced, 'Crude Oil Stocks in the SPR include non-US stocks held under foreign or commercial storage agreements,' refers to crude oil that is (or more accurately was) physically located in SPR storage facilities in the US. Crude oil inventories destined for delivery into SPR are not included in SPR inventory levels until they are actually put into SPR storage facilities located in the US. The footnote in question relates to some Mexican-owned crude oil stored in SPR in the late 1990s that has long since been returned to Mexico. The footnote is outdated and we plan to delete the footnote."

We followed up with Nancy Marland, who works in the SPR office.

Simple oversight? "Yes," Marland says. That Mexican deal Peterson referred to was a one-shot deal; it's since been removed and what remains "is all our oil."

Although the SPR cavern network has a capacity rating of 727 million barrels, she says the department "is only authorized to fill up to 700 million at present..." There is plenty of room for more storage in the 62 caverns, she says. But anything over and above the 727 figure will take a little more work.

(Click to continue on page 14)



(VIRTUAL SPR? from page 13)

“The program is authorized to store up to 1 billion barrels. We could go up to 850 million barrels by increasing the capacity of the existing sites. To bring the capacity from 850 million barrels to 1 billion barrels, we’d have to build a totally new site.”

If you consider leasing, contracting, engineering, environmental impact assessments and the like, that process could take anywhere from six to nine years, she says.

If the SPR needs to increase capacity, it is entirely practical, she says. “We have a game plan.”

Under the never-say-never line of questioning, we asked Marland if it could it ever be the case that any oil that’s not physically in the SPR could be considered SPR oil.

“We have right now term contracts that serve to fill us up. From an accounting point of view, you could say that anything under contract to you is an account receivable. And you can count that as an asset. For the numbers we publish externally (as in the weekly status report), we do not include these receivables. We track those numbers internally. We also have authorization to store oil on floating storage outside the US, in the Bahamas or somewhere. If we were to do this (store oil on floating storage), we could count that as inventory. But right now, we’re not doing that. Our numbers only reflect what is in our sites [salt caverns along the Gulf].”

When might they count floating storage outside the US as actual SPR oil? When storage was lacking in the 1980s, the agency was *authorized* to lease floating storage (which they never had to use) and as such, that floating storage would be included in the public numbers. The SPR still holds this authorization. But for all those term-supply contracts, they continue to be booked internally until they are actually loaded into the caverns. “Until it’s back in the ground, we don’t advertise it as an asset,” Marland says.

She says they plan to remove the footnote soon. Would the footnote one day reappear if floating storage was suddenly in play? Our hope is that a “simple oversight” doesn’t prevent the notation from being listed in a more timely fashion. We imagine that the futures market might not react so passively to the news that SPR oil is actually floating in tankers around the world’s oceans and not safely resting in salt caverns on the US mainland.

Strategic Petroleum Reserve Inventory for April 20, 2005 Current Inventory

Sweet	Sour	Total	Royalty-in-Kind to be Delivered
277.7 million bbls	412.3 million bbls	690.0 million bbls	9.7 million bbls

Note: Royalty-in-kind deliveries are currently scheduled to extend through August 2005. This inventory and delivery schedule reflects the latest information available and may fluctuate as Hurricane Ivan exchanges are definitized.

Current Supply Schedule

Year	Month	Scheduled (MB)*
2005	Apr	3912
2005	May	1808
2005	June	2420
2005	July	2420
2005	Aug	2181

More SPR Fast facts:

Question: How fast can oil be released from the SPR?

Answer: Should the president order an emergency sale of Strategic Reserve oil, DOE can conduct a competition, select offers, award contracts and be prepared to deliver oil into the marketplace within 13 days. Oil can be pumped from the reserve at a maximum rate of 4.3 million barrels per day for up to 90 days, and then the drawdown rate begins to decline as storage caverns are emptied. At 1 million barrels per day, the reserve can release oil into the market continuously for nearly 18 months.

Drawdown Capability

Maximum drawdown capability - **4.3 million barrels per day**

Time for oil to enter US market - **13 days from presidential decision**

Hedge Funds Bringing Capital to Energy Markets

Energy Trading has Entered a New Paradigm Termed “the Triangle of Trading,” with hedge funds, investment banks and multinational oil companies in the trader’s seat, according to Gary Vasey, who heads up Utilipoint’s trading and risk-management practice.

“Speculators and market makers are needed in this market, and hedge funds, investment banks and multinational oils are really fulfilling that obligation,” he told a recent meeting of the National Capital Area Chapter of the US Association for Energy Economics in Washington, DC. “New players are bringing much more risk capital to markets. That’s good for the markets, because it’s bringing the liquidity that supports hedging.”

Hedge funds like the volatility in the energy industry and they think energy is ripe for better-than-average returns, he says. The pool of investors started with the typical hedge fund investors – wealthy individuals and family money. But the recent arrival of the big institutional investors, through natural resources funds of funds, signals a rapid maturation of the energy hedge funds, he said. Hedge funds, pension funds and even mutual funds see the market as their new alternative asset class.

At the beginning of last year, there were about 10 commodity-trading hedge funds, with energy just a portion of a “macro” view of commodities. Now there are around 100 focused strictly on energy commodities. As many as a dozen new “energy specialist” hedge funds are entering the market each month.

Even the “macro” hedge funds – broad-based funds with more than \$500 million – are getting more heavily into energy. Today the energy industry has about 330 hedge funds overall, and assets under management are heading north of \$40 billion.

Vasey gave a couple of examples of typical energy funds. One European oil hedge fund has a staff of three managing \$50 million, but returns in its first six months were nearly 17 percent. One US energy fund has a staff of two managing \$50 million, but it’s seen a 22 percent return since inception. Both of the funds

(Click to continue on page 17)

Power Moves

Wishless Thinking and a Football with Fins

Original market commentary by Dr. Robert Michaels, professor of economics, CalState, Fullerton, and senior columnist, The Desk

The shape of Southern California's Summer resource shortfall is becoming clearer. Power plants are being abandoned. Few new megawatts will be on line soon, and now most of those will be a couple of months late, a gap that might matter. Problems south of the new Path 15 mean that you still can't move much power from Northern to Southern California, and the Northwest probably isn't going to have a whole lot anyhow. Even within Southern California, transmission problems can render some local resources unusable.

February's California Energy Commission report was the first to point out the situation's urgency, but it was, as noted here previously, strikingly silent on Northwest hydro. In late March the ISO issued a report with more memorable language. Even with normal weather, Southern California "has very little tolerance to accommodate any adverse resource variations," mentioning excessive local outages and import surprises from the Northwest and Southwest. We will have "critically thin operating margins" in a 1-in-2 scenario, and a shortfall of 1,700 MW in a "warmer-than-normal" 1-in-10.

The ISO's assumptions about available hydro are puzzling. The normal scenario is for imports of 8,000 to 9,000 MW, about 6,000 of which comes from the Northwest. OK so far, but the ISO's "adverse" scenario is a reduction of only 1,000 MW from the Northwest and everything about the same in the Southwest. Why such a small reduction is unclear because that region is looking at an awful year. Snow equivalents in the Cascades are between 20 and 30 percent of average. And if "ad-

verse" means hot, as the longer-range forecasts predict, the Southwest won't have much to export either. Western Power Trading Forum's Gary Ackerman told the Los Angeles Times that the ISO's Northwest assumptions are "wishful thinking." But even if it's wishless thinking, most of what we will get from the Northwest are their legal leftovers, quite possibly at prices reminiscent of 2001, since they don't have any mitigation.

And then come the really funny numbers. In the original plan, sales of surplus municipal power would bring Southern California 200 MW of relief. (The best signal that there are big problems is that these nickel-and-dime amounts have to be itemized to fill the gaps.) Now Los Angeles says it is willing sell 250 MW to the utilities (no price specified), and more if it stays cool, in which case the utilities may not need it. Then someone from the Energy Commission told a joint meeting of regulators that its original report of a shortfall did not include interruptible power and demand response, and when you included them everything was OK. I can't get to the bottom of this on my own, but 2,000 MW of interruptible and demand response definitely appeared in the CEC's original report. Everybody knows the basic numbers, and it's hard to believe that no one noticed this life-and-death discrepancy until just now. Either nobody takes any of these figures very seriously or somebody wanted us to panic. In any case, some of the peak pricing behind those assumptions won't be there because political opposition forced the PUC to shelve that rate design and they can't have a new plan ready by Summer.

There is one more wild card. A writer in the Los Angeles Times recently called the Northwest's salmon population "a political football with fins." It seems that three Indian tribes have gotten together with (you guessed it) federal scientists, and they intend to litigate a massive "salmon spill" so that the remaining fish can swim upriver. The Bonneville Power Administration cancelled last Summer's, and that was a normal year. The litigants claim that most of the remaining salmon will go bye-bye without a timely spill. Now a federal judge has ordered the spill, but the administration (minus a few scientists) continues to fight it. Oh, and if the salmon become extinct, the tribes get a lump-sum payment of \$10 billion.

We can only be thankful that California's government is watching out for us. Our attorney general and the three big utilities have asked DOE to revoke BC Hydro Powerex's license to sell in the US. Next, we are currently operating under a deadline for 20 percent renewables by 2010, a figure that the Assembly Utilities Committee has just decided should be 33 percent. Finally, a collection of western governors (including ours) has proposed new transmission for 5,000 MW from new "clean coal" plants in Utah and Wyoming. The legislature wants nothing to do with this unless it gets to define what clean coal is.

All this behavior probably makes eminently good sense, since everybody now knows the really serious problems won't come until Summer of 2006 or 2007. You can count on that because a state agency predicted it.

Bob Michaels is professor of economics at California State University, Fullerton and a consultant affiliated with Tabors, Caramanis & Associates of Cambridge, MA. The views expressed in this column are only coincidentally the professional opinions of the author, his affiliations, or their clients. Contact Michaels at rmichaels@fullerton.edu.

(THE POINT from page 1)

Depending on which forecast you believe, most regional electric markets will come back into balance by 2010-12. The danger in forecasting, however, is that things don't necessarily work out the way one had planned, or would like. To wit, many pundits are talking about \$5/mmBtu natural gas as a modest price (which it is, compared to \$7.50 gas). Few had that view a couple of years ago. And most current long-term forecasts are built around lower gas prices in 2007-9.

For most companies, the process of trying to forecast future supply/demand balances, fuel and emission credit prices and spark spreads is important. And for firms with only a limited amount of financial flexibility, adverse market conditions can be difficult, if not deadly.

Currently, the league table of merchant generators shows Calpine on top, with about 26,000 MW of generation on-line and another 5,500 mW in the pipeline, including about 1,000 MW coming on line in California in the next few months. Fellow columnist Bob Michaels has provided an indication of how tight that market might be, assuming the hot weather shows up. Calpine often tops the informal lists of companies that might be ripe for another round of restructuring, given its heavy debt burden, number of operating plants in markets forecasted to have continuing surpluses and given forward natural gas prices at or above \$6/mmBtu. YE2004 securities filings indicated a total debt burden of about \$18 billion, while recent stock market valuations range from \$1 billion to 1.5 billion in total equity value.

After recovering from a sub-\$2 stock price during the Enron downdraft in 2002, Calpine seemed to have righted its financial ship and averted disaster. The stock price rose above \$5, which while only 10 percent of its previous lofty valuations, seemed to portend its ability to ride out the storm and ride up the expected increase in spark spreads and market prices for electricity. Low interest rates and substantial liquidity in financial markets enabled debt restructuring that pushed out debt repayments until 2007, when many expected the markets to begin to see significant recovery, especially in California, Texas and the Northeast, where a substantial majority of Calpine's assets are located.

But the gods have not always smiled on Calpine in the past year. Natural gas prices have risen beyond \$6/mmBtu for much of the past six months, causing a significant squeeze in spark spreads, despite a nice increase in wholesale power prices in most markets (note the generation margins in Exelon's Q1 earnings announcement). Forecasters, including EIA, have regularly increased their short-term price forecasts for crude oil and natural gas. As Andy Weissman has noted, EIA's 2005 forecasts has increased by 25 percent since January. This has led some longer-term forecasters to rethink their gas price predictions for the next few years, which has led to an implicit knock-on effect on spark spread expectations. The company does not expect to make money until 2007, with per share losses of 80 to 90 cents expected in 2005, followed by smaller losses in 2006. The prospect of squeezed spark spreads has led some to wonder whether 2007, when the first round of refinancings are due, will be a profitable year. (It is worth noting again that forecasting spark spreads six months out has become quite challenging, so forecasts for 2007 are only for the brave.)

A variety of investor concerns have resulted in a serious erosion of Calpine's stock price in the past year. In particular, the past five days have seen the stock price fall by 41 percent to a new all-time low of \$1.45 (close of Thursday, April 28), indicating an equity market value of \$775 million. (It traded as low as \$1.32 intraday.) Reported short interest in the stock is nearly 50 percent of the total float, making Calpine one of the most shorted stocks on the NYSE. Volume has been very high, with Calpine claiming the top spot on the NYSE's most active list for several of the past five days, including 45 million shares traded April 28 - 9 percent of shares outstanding.

Figuring out what is going on is difficult, because the company's financial structure is complex and the current information is limited and somewhat opaque. As you might imagine, rumors abound. Rumors of bankruptcy surfaced last week, prompting Calpine to issue a press release denying the intention to file. That didn't stop the selling, which has continued all this week. By Friday, April 29, the company "pre-announced" its earnings and indicated that it had \$800 million in unrestricted cash on hand with another \$500 million in restricted cash.

Calpine also indicated that it "remains fully collateralized with most of its counterparties, and has not been forced to post any material margin over the past week directly with counterparties." I'll leave it to the experts to determine whether this is comforting or not. Reaction has been initially positive, with the shares up about 10 cents in the first hour of trading, although volume has exceeded 10 million shares in the first 50 minutes of trading (compared to the average daily volume of about 5 million just three weeks ago). With this level of volatility and the huge short interest, it is anyone's guess what will happen over the next five hours, never mind the next five days.

This leads one to wonder about whether there are some value players who are looking carefully at Calpine. Assuming all the generation in the pipeline gets finished, Calpine would have 31,000 MW of capacity. Assuming one could buy at a 20 percent premium to the current market price (\$1.55), the per MW price is \$32. Assuming that the buyer has investment-grade credit, cash posted for margins gets freed up and junk bond debt gets purchased at a discount (some was yielding 35 percent yesterday and refinanced at investment-grade rates. Add in a big trading operation to manage risk and exploit opportunities. Could be interesting. Could Calpine be the buy of the decade? It certainly wasn't for those who bought in at \$50 during the go-go days. But for a big player with staying power, credit, trading capability and a little courage, this could be a very interesting play.

A source has suggested that its Q1 earnings announcement may feature a virtual "rabbit out of the hat trick" in the form of a trading JV, ala EKT. (As Bullwinkle would say, "Presto.") Who knows, the company has indicated interest in the past, and there are certainly plenty of banks out there looking for a natural long to support their budding financial trading operations. Guess we'll have to wait and see.

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(ENERGY FUNDS from page 14)

believe that energy stock prices reflect a knowledge gap in that assets are mispriced and earnings are about to outstrip valuation.

"If you look at some of the forward price curves and the implications for earnings for the sector in 2005 and 2006, you begin to realize equities are currently undervalued by the market. There's a great deal of interest in taking advantage of that," he said.

Record amounts of money went into the hedge funds last year, and after a not-too-great year in 2004, they are looking at energy for greater returns. "Ask investment banks about future oil prices and they have a completely different view that has no mean reversion built into it. They've gone beyond trying to get back into trading – they've bought reserves in the ground. They are becoming producers," he said.

Hedge funds are also taking a longer-term view, getting involved in business strategy of the companies they invest in. They've even blocked restructuring plans at the companies. "That's a bit different than the behavior one would normally expect from a hedge funds," Vasey said.

The funds are now one of the largest providers of debt financing for the old merchant sector, which is stimulating the market for distressed assets. Master limited partnerships are re-emerging, as investment banks or groups of hedge funds are creating pipeline and gas process MLPs. As Vasey put it, "We expect to see quite a lot more of that, since an MLP can bring a 6 to 8 percent return over time."

The energy traders left out in the cold by the merchant meltdown really jumped on the bandwagon in the last quarter of 2004. Former Enron and Dynegy traders have been starting specialist energy funds, pulling together \$50 million to \$75 million in assets to hit the energy markets, usually in physical commodities.

"We're going to see some blowups," Vasey said. Trading with the corporate backing of Enron at its height is one thing, but using the same techniques with only \$50 million in assets means you can get wiped out fairly quickly, he said, noting that Barton Biggs did all right overall in 2004, but got spanked hard by shorting oil at the end of the year.

Vasey sees more trouble ahead. As the former merchant energy traders are all picked up, some hedge funds are bringing in financial market traders. That a recipe for disaster, he says.

"The problem is that energy is a unique commodity... These energy markets require trading expertise and risk capital. It's a risky business," he says. The worry is that if hedge funds bring black-box tools and a traditional financial market approach to risk management, they are likely to make mistakes and get burned.

Vasey said about one in eight startup funds fail in their first year – 40 percent due to pure fraud, 30 percent due to poor risk management. The average return is about 20 to 25 percent, but as some of the hedge funds start to go belly-up, returns across the sector will likely moderate to "a reasonable rate" of 10 to 15 percent, he said.

"Many of these hedge funds are trend-followers that use black-box techniques to look at market fundamentals and the price curve, and then they follow each other," Vasey says. "When you see four or five hedge funds making 100 percent return in energy commodities, a hundred more will follow them. One of the things we've got to consider is: What's the capacity of the energy market to allow that number of hedge funds to enter and make those kind of returns? Eventually something's got to give."

But Vasey ended his talk on a high note by recounting a line he heard recently from a market analyst in the know, "the next five years will bring a boom time like we've never seen before."

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MEREX

Terzic on Strategy

New Incentives to Investment: A History

By Branko Terzic, Deloitte Services LP

There is much talk that regulators need to provide financial “incentives” to encourage new infrastructure, especially for electric transmission. There are a few schools of thought on incentives. But, the issue is not a new one and neither is the solution often proposed. Here is why.

The question of how to get vital utility infrastructure built was also faced by the first generation of public service industry regulators as “public services” provided by private capital (railroads, electricity, gas, telephone, water) were introduced to the general public in the late 18th and early 19th century. By the year 1918, the issue of the nature and role of “incentives” had been settled. My source for this statement is the 1918 monograph *Valuation and Ratemaking: The Conflicting Theories of the Wisconsin Railroad Commission 1905-1917* by Robert L. Hale. The title of Chapter V says it all: “The Theory of Fair Return on an Amount Sufficient to Secure Service – Or the Incentive Theory.” Hale writes that a “fair rate of return on the reasonable value of investment” is just what is needed. That return he says is “fixed in the open market by economic forces over which individuals and companies have little or no control.” The allowance by regulators of a market-based level of return, in rates paid by consumers, is all that is needed to ensure investment. Hale uses the term “value.” The notion of whether the “return” must be expressed on the “value” of the assets was cleared up by the Supreme Court in the 1940s and after that, most state regulators went to the shortcut method, ignoring any calculation of “fair value” and instead concentrating on the return in terms of the

“book value” or “original cost depreciated” of the investment. What the return should represent, however, was settled.

But the regulator has an additional concern beyond that of attracting adequate investment. Is the opportunity for a “fair return” enough to encourage investment, but also enough to encourage operating efficiency? By 1918, the Wisconsin commissioners had also addressed this issue. In a water utility case, they had determined to “allow not only a rate of return sufficient to attract capital, but an additional percentage to reward efficiency.” Now we had the precursor to our current debates about “performance-based” or “incentive” ratemaking.

The possibility that such an “incentive” method might actually have negative effects was also considered. Hale notes that “the prospect of keeping the additional percentage may have the effect of causing the management to let the quality of service deteriorate, to browbeat the employees [sic] and the like.”

Hale also recognized that regulators had the tools necessary to ensure against this outcome. “Any scheme of encouraging efficiency by permitting the enjoyment of additional profits whether they can be earned, must be safeguarded by making the enjoyment of such exceptional profits conditional on the rendering of exceptions service.”

It is interesting to note that Wisconsin regulators of that era were familiar with the principle of allowing higher returns on a “sliding scale” as in use then in England and Massachusetts. Indeed the later Wisconsin legislation would allow the use of “sliding scales” for rate of return on a company-by-company basis. The practical applications of the incentive technique, however, would go on to vex regulators for decades.

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(ROLES IN RISK from page 12)

on, our role is to get the dialogue up and running among all internal stakeholders,” Kremke says.

Fewer balls are dropped? “Exactly.”

It also means the wheel isn’t reinvented every time an internal stakeholder needs to build a valuation model to make a decision. “Because there are always so many inputs to consider, so many sensitivities involved, this role also helps to build transparency among and between the stakeholders.”

The company is developing a library of models and assumptions from across the enterprise, which are periodically updated so that, when one of these decisions comes up, “we know we’re employing the latest and greatest, whether we’re talking about investment or refinancings, debt or equity issuance or interest rate hedging, retail deals or plant valuation.”

The decision analytics unit was formed late last year; its project list is set by a steering committee that includes the CFO, CRO and the rest of the Reliant leadership team — the folks who report directly to the CEO.

We asked how this function might change as the market further evolves.

Kremke says it’s clear if you look at the way other companies have adapted in this area. ExxonMobil is a good example. “Anytime any major project decision or commercial decision comes up, they have an internal group responsible for reviewing all decisions. The capital allocation team is made up of engineers, fi-

nance people, risk guys, finance people and so on. We’ve been kicking around the idea of this role leading to a similar sort of operation,” he says. “Clearly Reliant is a different company than it was two years ago. And we’re heading down a path that will make us a different company than we are today. Once the balance sheet is in order, we are going to be poised for a lot of growth.”

Many companies share this sentiment these days, if the latest round of earnings calls is any indication. In that context, it sounds like this notion of a decision analytics “tiger team” might soon be a more common feature at rank and file energy companies.

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FERC in Focus

We Plan to Feature Interviews With OMOI Senior Staff and others at the commission who, by and large have some say on how your day will go. This issue we asked Hederman what's on his plate, his thoughts on price indices, storage reporting, market monitoring and other issues. —the editor

So what's Hederman thinking about most? Figuring out new ways to build market integrity, and greater confidence in that integrity. "This could be a bumpy Summer," he said, referring to price volatility, "so it's real important that people have confidence in market integrity." Price, weather, demand growth — particularly in Southern California — tight supply in some regions and so forth suggest that this Summer will be bumpy indeed, at certain points. As for California, however, Hederman said he's lately been impressed with the ability of the various state and local and regional authorities to work together to accomplish a shared goal — to avoid another Summer power "situation."

In years past, short supply markets have typically featured all sorts of innovative trader mischief. Severe weather conditions and whipsawing price volatility at times doesn't bring out the best in everybody. We asked Hederman about preventative measures for such things: Keeping their fingers crossed?

"We're planning for it. We're building scenarios that we think might create problems and are planning appropriate responses. We're preparing to be out and about, visiting the major players, making use of [FERC Chairman Pat Wood's] 'cop on the beat' analogy. We'll letting companies know that we're out there ahead of time, tapping our night stick on the fence, so to speak."

Hederman said there's a fine line here between what OMOI hopes to accomplish (staving off mischief) and what it hopes to avoid — scaring people off.

"We want people in the market participating and behaving responsibly. It's very important to us that people who want to be in the market, are. If a company is uncertain about entering the market, for whatever reason, we want to ease that uncertainty. If you're planning to behave in a responsible manner, you should be in the market... especially since we're looking at a tight supply demand situation," he said. "There are a lot of opportunities in this market."

One point that may be spooking folks these days, due to FERC's more aggressive monitoring and investigatory stance (particularly in a tight supply market), is that some companies tend to either make a lot of money or lose a lot of money. We mentioned that some companies might be concerned about being on the receiving end of undue scrutiny, simply because they made a lot of money in a tight market, acting responsibly all the while.

"When prices get high, there will be people here reviewing what happened. But if you can explain what you did and if you have a rational strategy in play... you've answered our questions. No problem. There is nothing wrong with making money. In fact, in a tight supply market, you need to have people out there wanting to make money, otherwise there's not going to be a solution to any supply problems," Hederman said.

He later made the broader point that the energy sector has had ample opportunity to show leadership on enhancing in-

tegrity in the market. A lot of individuals and individual companies have stepped up to the plate on that score. "But I don't get the sense that the entire industry has seized the opportunity to say, 'We're going to clean up this market better and faster than ever before,'" he said. "This point really hit me this week, after listening to the congressional hearings on steroid use in baseball [players like Mark McGwire taking the Fifth Amendment when asked directly about steroids]. Baseball players pleading the Fifth? When you creep away from the truth, you do so much damage to yourself and your institutions. We just keep trying to encourage the energy industry to pick up that torch and carry it, to do the right thing."

Hederman referred to the Tylenol product tampering case of many years ago as a model for how the energy industry should go about its business. "The second that news came out [about poison in Tylenol bottles], the company was extremely proactive about fixing the problem. They did everything they could to protect people, setting new standards for safety. And you know what? That customer loyalty is still strong a decade later."

Price indices: views? "We've been encouraged by what we've seen. We regularly report on it to the commission. They [commissioners] are keeping an eye on it, and they could elect to move on it whenever they want. In general though, I think there is a sense that the corner was turned, the volumes are good. And there are other developments underway which are encouraging," he said.

Developments underway? What developments?

On the legislative front, Hederman sees positive developments in the current version of the energy bill, which calls for mandated price reporting and a FERC-administered or designated electronic gizmo to manage the data. On the private side, "companies are taking the initiative on their own," he said, making a veiled reference to the CCRO-sponsored energy data hub.

As for reports and surveys, OMOI is preparing the next seasonal look ahead and the State of the Market Report in advance of the Summer. As for any teasers on the state of the market report, Hederman said it's a little too early. But he did say that the structure of the report has changed to a more focused view: "We hope the report will become a better reference document, there will be more standard measures of things. We want it to become a document of record."

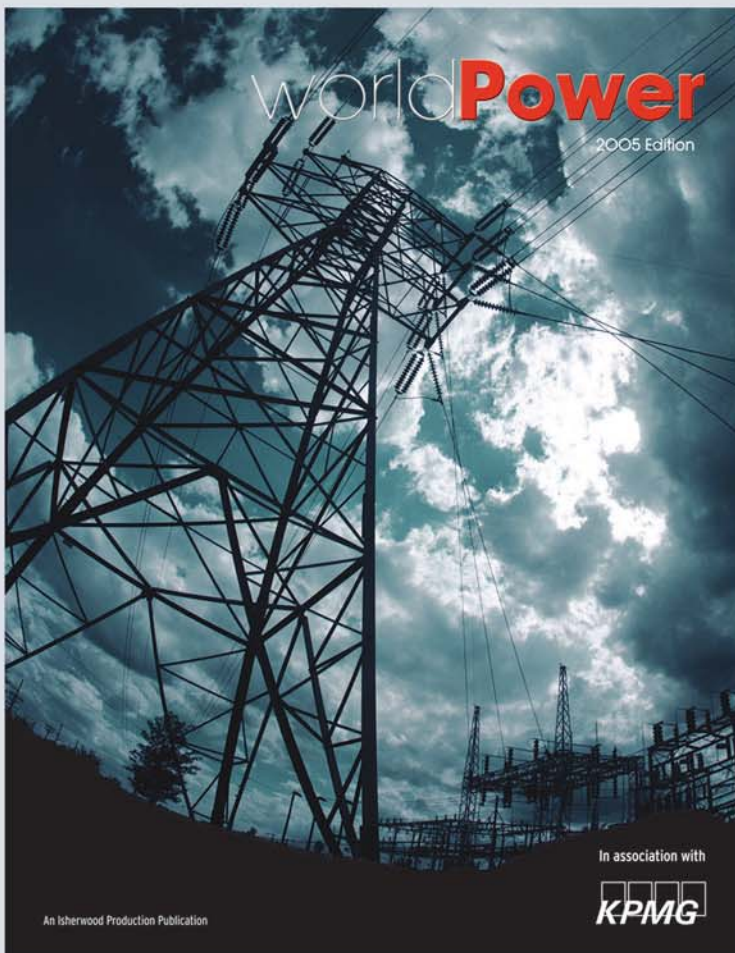
On the audit side, he said OMOI has been integrating a large group of financial auditors (transferred from the chief accountant's office last Fall) with the operations audit and enforcement groups. Right now, OMOI has a team of about 40 auditors. The numbers may grow.

Systems-wise, in particular for market monitoring, Hederman said OMOI is well supported but may invest in some new apps to help with certain trading pattern recognition.

EIA storage reporting; where's FERC chiming in on that one? "We issued a letter to EIA [for the record] on storage reporting. It's an EIA matter."

Nonetheless, House Energy Committee chairman Joe Barton (R-TX) has another idea on that score. Current energy bill language on the handling of storage data could one day make the process very much a FERC matter.

Be that as it may, Hederman said, "to my knowledge, FERC is not lobbying for the... honor... of doing that."



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