

THE FRIDAY BURRITO Vol. XVII #16 May 16, 2014

Rich In Iron-y



“For a politician to complain about the press is like a ship's captain complaining about the sea.”

Enoch Powell

“To love what you do and feel that it matters, how could anything be more fun?”

Katharine Graham

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Man, I picked the right week to escape the lower-altitude heat wave that attacked the West Coast, and instead I found pleasant respite in Lake Tahoe where the morning temperatures were actually in the 30s and the afternoon highs hovered in the low 70s. I cranked up my home's forced-air space heater each morning to make my workspace (i.e. Master Bedroom) cozy. By 8 p.m., one needed to don a jacket if sitting outside to take comfort from the settling chill. And the sunsets ... OMG, the evening sky became a corona of reds, blues and greens staged behind the Sierras; it was nothing less than breathtaking.

Western States Playbook

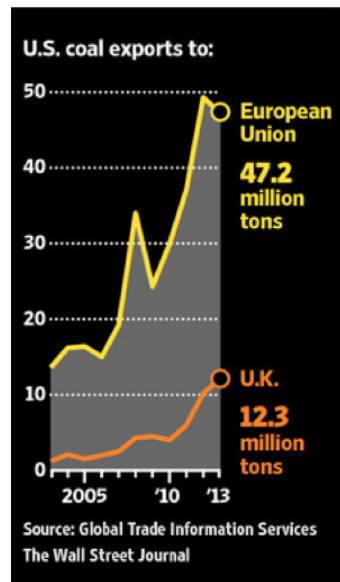
WPTF Summer General Meeting:
Thursday and Friday, June 26-27,
at the Sonoma Mission Inn,
Sonoma, CA. Invited keynote
speaker is FERC Commissioner
John Norris. Registration available
on the WPTF website.

Did you suffer the heat wave? Oh, too bad.

Of course, I was staying at my home in Nevada, which doesn't experience global climate change. I bet on the California side of the lake it was a lot warmer.

Thus, it was the usual amount of disdain that I traipsed through the news stories this week and saw the uptick in stories about global warming ... the scourge that people talk about but do nothing. This week, California's shoo-in next governor told an audience in Los Angeles that according to "scientific studies" sea level will rise over the next 200 years to swamp the ocean-exposed airports of LAX and SFO. It would be expensive to move them, Brown quipped, but at least he said it with a sense of humor. According to the LA Times, that bastion of fish wrap, incumbent Governor Brown said, **“That's billions, if not tens of billions. Luckily, we can take a few years.’ He joked: ‘Maybe my next year's budget will handle that.”** It was a shame then to read yesterday that an aide to the Gov. corrected his boss's assertion about LAX, which is about 120 feet above sea level. Oops. However, SFO and OAK are still at risk. Oh, good. For a moment I thought there wouldn't be a future catastrophe to report. Yes, California is a state that doesn't have the gumption to fund water tunnels through the Delta in a drought-stricken year that costs maybe \$16 billion, but the state's residents will pay to move a couple of Bay Area airports. Keep it coming. The irony is delicious.

On a more serious note regarding GHG emissions and global warming, the WSJ business section last week ran a story by John Miller entitled, “Dirty U.S. Coal Finds a Home in Europe.” Europe? Are they kidding? That enlightened continent full of GHG compassion is suddenly burning more U.S. coal? Well, I’ll be damned. The coal that is



being exported “Is high-sulfur coal from under the plains of Illinois and Indiana—exactly the kind of high-emission, power-plant fuel receiving closer scrutiny from U.S. regulators and courts.” I don’t think the boon in coal exports will last forever, but it’s a boost for the U.S. economy only too anxious to export its GHG emissions overseas. I mean if you can’t see it in your backyard, then I guess it doesn’t exist. Here’s another poke at Germany. “Germany’s decision to phase out of nuclear power after the 2011 Fukushima nuclear disaster in Japan has also made it a significant buyer of U.S. coal, mostly because the commodity is so inexpensive. ‘Before the financial crisis, Europe was happy to favor the environment, but when the economy started not doing well, they weren’t quite ready to accept the high power price,’ so energy consumers returned to coal, says Daniel Rohr, an analyst for Morningstar Inc.” Yeah. People are rational when it comes to the environment and money. The irony is delicious. Oh, I already used that line.

Sorry.

Let’s turn our attention to people and things that make sense. Severin Borenstein continues to pump out great stuff on his energy blog. He posed the question in his latest blog; What makes more sense: paying homeowners and businesses to reduce demand (demand reduction), or sending people a real-time price that gives them the ability to reduce demand based on preferences? Here’s a hint to his answer. “What’s the baseline level from which you start paying for [demand] reduction? In nearly all programs, baselines are based on the customer’s consumption in the recent past, usually on other high-demand days.” Thus the accounting for solid reductions is somewhat hazy given that the starting point for purposes of comparison is debatable. “The incentive to conserve changes drastically around the baseline quantity. Rebate programs pay for reductions below the baseline, but don’t charge extra for going above the baseline.” There’s a bingo. If the demand reduction is going to stick, it should incent good behavior and charge for the opposite. And finally, “Peak

- What we believe...**
- 1) Competition yields lower electricity rates.
 - 2) Stable and transparent rules and regulations promote private investment.
 - 3) Private investors, rather than utilities, will spend money on new power plants and transmission facilities if they can earn a return that is balanced with the risks.
 - 4) Private sector investment results in lower average prices without risking consumers’ money.
 - 5) However, when IOUs do the investing, the risks to them are minimal or non-existent because ratepayers cover all of the costs.

Time Reduction (PTR) is an inefficient route to that end that will end up paying for a lot of faux ‘demand reduction.’ Time-varying pricing is the direct route to the goal.”

How many times have I mentioned in these pages the very simple but effective time-varying tariff used by my friend who lives in Chicago? I can’t find any utility in California with a similar program. My friend is billed based on hourly PJM prices, and he gets email alerts if prices are expected to skyrocket the next day. I called him to hear how the harsh winter went, and he said, “Controlling my electricity when it’s cold outside is a lot more difficult than when it’s hot. I can put up with a bit warmer home interior, but I can’t put up with a cold den in which to watch TV. So I turn on the electric heating element just for that room.” I asked him if he received price alerts last winter, and he said he received “tons of email notices” which confused him a bit because the notices appeared not when the outdoor temperatures were especially cold. “I guess it was supply and demand at work, but I can’t see what causes the prices to move.” During the summer, his home air conditioner’s operation is tied to the real-time price such that the compressor will cycle if the price meets or surpasses one of two levels (pre-set by ComEd but selected by the customer). He also has the option to bypass any curtailment regardless of the price, and then re-instate the control all through his home computer. Like the A/C controllers used by the California IOUs, my friend’s utility, ComEd, does the switching off and on of his A/C unit, but again it’s based on a menu of price points from which he selects. There isn’t a utility in California that has that fluid customer option that’s a mouse click away. Not even PG&E’s Smart AC Program, for example that pays a small customer rebate to let the utility decide when the customer’s AC



Out of Luckhardt

[\[Click here to learn about the author\]](#)

Heads up to biomass project owners and operators, the U.S. Environmental Protection Agency (EPA) has decided to focus air enforcement activities on your facilities. Even if a biomass project has the permits and approvals from the local air district, EPA can and will do its own investigation and come to its own conclusion on whether the facility has violated any provisions of the Clean Air Act. Despite a national goal of focusing on large emission sources, EPA Region 9, covering Arizona, California, Nevada and a variety of islands, is evaluating biomass facilities with a capacity as small as 10 megawatts.

Regardless of the attainment status of the air basin in which the facility is located, Region 9 is going after projects in the name of cleaner air. EPA’s investigators are looking for periods of time when the facility may have been curtailed, repair work that appears to go beyond routine maintenance, and excess emissions resulting in notices of violation from the local air district. Do not be lulled into complacency if the air district consulted with EPA when determining permit requirements for your facility. EPA’s position is they were merely providing advice. They can later, after the biomass facility owners have spent considerable sums, come to their own contrary conclusions.

After a costly investigation, EPA may request extensive modeling followed by the installation of additional controls. If the costs make the project uneconomic and despite downward trending renewable pricing, EPA says just go back and renegotiate the power purchase agreement.

should be cycled. Just as Borenstein suggests in his blog, my friend in Chicago is exercising his personal choices based on the hourly real-time price, saving money and helping reduce demand. The irony is delicious. Where have I heard that before?

This edition of the Burrito introduces a new column authored by Jane Luckhardt, an attorney at the Sacramento-based firm of Day Carter Murphy LLP. Over the years, Jane has been a terrific commentator at WPTF meetings on environmental laws and regulations both in California and nationally. Therefore, you can expect to see her terse synopses about once a month. In her inaugural column she examines regulations regarding biomass generators, as you can see above.

A special note of thanks goes to Financial Times columnist John Dizard, who has been a faithful attendee at the WPTF New York City chapter meetings. He wrote a great column last week entitled “No Silver Lining for Gold-Fix Regulation” that referenced the WPTF meeting held at Noble Americas in Stamford, Conn. John wrote of our discussions, “[You cannot imagine a market with more oversight.](#) Among the two dozen or so people at the

What we believe (cont.) ...

- 6) Overcapacity lowers electricity spot market prices; yet retail rates can increase in this case due to full cost-of-service regulation.
- 7) Markets work best when there are many buyers and sellers.
- 8) At-risk money will be put to work and attract new investment where markets exist that are legitimate and yield credible prices.

meeting were two federal officials and three media people, along with several compliance lawyers and econometricians. And clean? I do not know a cleaner group of people. In the coffee room next to the conference there were three types of individually packaged moist wipes: one for hands, one for eyeglasses and one for electronic equipment.” Yes, we clean up well. John also dug into the problems that plagued California’s power markets in 2000 and added: “[And yes, some desks at Enron traded around the problems, and wrote some stupid and abusive documents and messages about what they were doing.](#) Their activities, though, were not even what

bankrupted Enron; that was its abusive accounting, particularly for telecoms assets and revenues. Enron did not cause the California electricity crisis. Market design specified by [poorly conceived state law did that.](#)” The man knows what he writes. Thanks for the mention, John.

Finally, before we skip the food section because no one sent me anything in the way of recipes, I want to review a piece in Greentech Media entitled “Fuel Cell Vehicles: Hype or Hope?” someone sent to me regarding the fuel-cell EV that I ran on about last week. The article takes a quasi-defense posture against the fuel-cell car relative to the battery EV, but not entirely. It points out elements where the fuel-cell technology has advantages, too. The area I was interested in learning about is the relative efficiency of natural gas in converting the feedstock into hydrogen and then electric energy vs. burning the same in a central power plant and delivering electricity to the home (and arguably used to energize the batteries in your Tesla). The article barely mentions the use of natural gas as follows: “[Hydrogen would ideally be created through electrolysis of water, using renewable](#)

electricity to split water into hydrogen and oxygen, rather than from fossil fuels like natural gas.” Almost 80% of the energy is lost through the two-step conversion process.

Yeah, but the theme of the note I referenced last week was the gas efficiency cycle for a modern fuel cell may be better than that for the electrolysis of water, and better than gas-fired central station electricity production. If it is, then I’m interested in leasing a fuel-cell car. If it’s not, then I’m not. All the other infrastructure issues regarding hydrogen-based fuel cells can be overcome with time and tax dollars so they don’t play a deciding role. I told Erin, “If a hydrogen refueling station is built near or in Pasadena, then I’m going to lease one of those puppies.” It will royally piss off the battery EV fanatics. After all, the EVers don’t believe there are any carbon emissions from their autos. Wrote one anonymous contributor, “[You wrote last week that we all go to the same trough to fuel up. You did intend that EVs go to the same trough too, right? If EVs were not at that trough, then I am baffled that more is not said about EV needs generation to charge batteries.](#)” It happens magically. You plug in your battery pack and the electrons come from heaven, sonny boy.

>>> Things in the People’s Republic of California
@@@ CAISO Power Markets: General Statements but Technically Inaccurate

>>> Shout Outs

>>> Odds & Ends (?!)

>>> Things in the People’s Republic of California
@@@ CAISO Power Markets: General Statements that are Technically Inaccurate

Last week’s discussion about the CAISO’s new fifteen-minute market (FMM) forced me to learn and re-learn a bunch of stuff about how our power markets work. That is, how the Day Ahead (DA), real time (RT), hour-ahead scheduling process (HASP) platforms operate and how the rules for each impacts the economic reality of generators, both thermal and variable energy generation (VEG, e.g., renewables) either inside the CAISO balancing area or imported. I decided in attempting to explain all this to myself is that we need a series of statements that are generally true but technically inaccurate. See if you can wrap your brain around that one.

In fact, in a fit of acronym envy, I named these elements Generally True But Technically Inaccurate (GTBTI) statements because for each one there are a host of exceptions and counter-points that should be mentioned.

... and, what we should do:

1. Believe in ourselves.
2. Encourage creation of independent, multi-state regional transmission organizations that coordinate policies with respective state utility commissions.
3. Support rules for resource adequacy that apply uniformly among all load-serving entities.

Knowing the TI part of GTBTI will make you a power market geek (PMG). If you work in the back office of a trading floor, then you have to be a PMG. If you trade power

around your company’s assets or on behalf of your customers, then you have to be a PMG. If you want to be considered normal and get invited to cool parties, then it’s best to leave the PMG designation behind. However, I believe there is a need to understand more simply all the gobbled gook that is tossed around regarding the CAISO’s workings.

Today I offer five GTBTI statements that I wish to present, and in so doing explore the inaccuracies, thus making the discussion more accurate and possibly useful. One never knows.

GTBTI	Why It’s Inaccurate ... but that’s okay
<p>The CAISO now has a three-part settlement system: DA, FMM, and RT.</p>	<p>This one is a softball because as of May 1 it’s accurate. But ask someone who is a PMG why there is a need for three different market energy prices for each operating or flow hour, and you might get a bunch of “hm, uh, let’s see” or “it’s needed to accommodate power imports” or “I don’t know!” I have yet to hear the same response twice. Or in one case the response was, “It’s not needed. There should be continuous pricing like one observes for corporate common shares. The stock prices reported are the result of the most recent open-market transaction.”</p> <p>No wonder people get confused. I’ve decided that the essential need for a three-part settlement system is based on at least two requirements: maintain grid reliability while accommodating both power imports (an essential supply source for California ... has been and always will be) and renewable VEGs. There could be other requirements, but identifying them here is burrowing down a rabbit hole that will defeat the purpose intended: i.e., to make the CAISO markets understandable.</p> <p>I believe that all the other organized markets in the U.S. have only two-part settlements for each flow hour, that is DA and RT. The CAISO’s inclusion of an FMM, motivated to comply with FERC Order 764 requiring 15-minute intra-hour scheduling, could have been implemented as a scheduling procedure without re-running the entire security-constrained market and providing FMM prices, but it didn’t. It didn’t because as I discussed last week there was an ongoing effort started in 2011 to re-instate virtual bidding at the inter-ties (i.e., imports), and the stakeholder process addressing that problem came to a screeching halt when the CAISO decided to tackle both inter-tie VB and Order 764 compliance. The latter was achieved and implemented two weeks ago, whereas the former is at least another year away.</p>
<p>All designated resource-adequacy (RA) resources must bid into the three markets:</p>	<p>Not necessarily true, especially for renewable VEGs that are in the Participating Intermittent Renewable Program (PIRP). Those resources can but are not required to submit DA bids. Recall that renewable VEGs can be deemed RA compliant for a portion of each resource’s installed capacity, say in the 30% range. Whereas thermal RA resources when operationally available</p>

GTBTI	Why It's Inaccurate ... but that's okay
	<p>must submit bids in all the markets¹, PIRP resources can submit bids closer in time to each flow hour. It makes sense. A PIRP resource has a much better notion about wind speed or solar output 75 minutes before each flow hour relative to the previous day. That may explain the influx of supply bids in the new FMM that are crushing DA prices, and then rebounding in RT prices.</p>
<p>Power imports are treated similarly to generators inside the CAISO.</p>	<p>The statement is becoming more truthful with the advent of the FMM rather than less truthful. But it's not entirely true given the nature of power imports.</p> <p>The difference stems from the scheduling procedures at the inter-ties. Typically, and I'm not aware of but one exception, an inter-tie schedule is set for each flow hour and cannot be changed within the flow hour by the party submitting the schedule. The one exception that has been instituted or is on the horizon is the allowance of a one-time inter-tie scheduling change at the mid-point of the flow hour, but I haven't researched that and my info could be out of date.</p> <p>Thus it's fair to say that inter-tie schedules are generally sticky across a flow hour. Inter-tie re-ratings and unscheduled power flows occur with some frequency, and in those cases the grid operators on either side of the inter-tie in question will make real-time adjustments. As of May 1, inter-tie schedules no longer receive make-whole payments from the CAISO if their schedules are cut. That is, no longer is there a bid-cost recovery mechanism for inter-tie deliveries. That puts import providers at considerable price risk.</p> <p>It is accurate to state as of May 1 that imports and internal generators are paid the same prices for energy deliveries scheduled in the FMM. Yet, given the stickiness of import schedules discussed above, the importer cannot buy back its delivery if the FMM prices fall below what the importer originally bid for the flow hour. So follow me here: an importer submits an FMM bid, say, which is awarded for the flow hour (i.e., all four 15-minute periods) based on the system conditions that are set for the first 15 minutes of the hour. However, in the subsequent 15-minute periods of the flow hour the FMM prices nose dive because of lower loads and/or higher VEG output, and the importer is paid (or must pay in the case of negative FMM</p>

¹ As explained to me by one expert, the thermal RA resources must submit a bid curve for the DA market and one for the FMM/RT market. That is, the intra-hour bid curve for each resource is the same for both the FMM and the RT. The resulting FMM and RT prices for each flow hour (or sub-portion of each flow hour) might change and usually do, but that doesn't imply different resource bids. It implies changing grid conditions throughout the flow hour that the grid operator responds to using the suite of dispatch tools defined in the CAISO's FERC- approved tariff.

GTBTI	Why It's Inaccurate ... but that's okay
	<p>prices) the lower FMM price. What was a good deal for the importer based on the initial run of the flow hour can sour as the hour progresses whereby each 15-minute dispatch is updated.</p> <p>Is it any wonder that import bids in the FMM have dried up? The imports are less exposed in the DA market because the DA prices are relatively stable, apply for the entire hour, printed at 1 p.m. the day before the flow date, and the importer can re-bid some or all of its deliveries just before the flow hour. However, the just-before-the-flow-hour-bids once submitted and accepted by the CAISO are locked and loaded and paid at the hourly average FMM price.</p>
Virtual bidding is allowed in the CAISO	<p>Accurate if one states that the settlement of the internal virtual bids is the FMM price. Inaccurate considering that presently inter-tie virtual bidding remains outlawed, but when it becomes a reality, the settlement price for the flow hour will be the FMM hourly average price. Thus, in the future, virtual bidding for internal generators and imports will use the same market prices for DA and FMM. The existence of the FMM solves what was a lingering intractable problem of yore whereby virtual bids for internal resources settled against the RT hourly average price, and virtual bids for imports (when allowed briefly for 6 months in 2011) settled against the HASP price.</p>
The CAISO energy prices across all three markets are the same, or nearly the same.	<p>If this statement were accurate, then a lot of traders wouldn't be experiencing severe depression as they have over the last two weeks. Before the existence of the FMM, there was a debate about the DA and RT prices separating, especially on critical high-load or peak days. RT prices appeared to be significantly lower than the DA prices. Alan Isemonger presented evidence of such at the recent CAISO Pricing Forum.</p> <p>With a new third market, the FMM prices are tumbling relative to the DA and RT, and no one is certain as to why that's happening.</p> <p>Should the prices for the same flow hour be close together in DA, FMM, and RT? I don't know. It makes sense to me that they should. It will remain a mystery until I retire ... and then I won't care anymore.</p>

>>> Shout Outs

Congratulations to Burbank Water and Power on becoming the newest general member of WPTF. Yes, that's member number 81 on the count. The contact person for WPTF at Burbank is a long-time friend of mine, Fred Fletcher. His contact info is FFletcher@ci.burbank.ca.us.

Erin Kenney formerly of Citigroup Global Energy recently joined Anahau Energy, a leading Minority Business Enterprise, as Director of Power Marketing. Her new contact info is (619) 886-7035, or erin.kenney@anahauenergy.com.

Last week I delivered my sermon of the month, and I received an anonymous reply on a topic that I have also written about lately ... FERC's Office of Enforcement and how it is handling cases and the people directly affected by such. "As a relative newcomer who has only been a FERC practitioner for a dozen years or so, my opinion is that the biggest change at 888 First Street NE is that FERC's enforcement types have lost their sense of humility. Back in the early OMOI days, the enforcement staff readily was willing to admit that it didn't know it all and looked at both sides of an issue with the same respect and desire to understand. Inquiries often began with informal phone calls and were closed with little fanfare. Entire investigations were conducted based on a couple of boxes of discovery. Most of us who were around back then believed that it was more important to 'get it right' than to engage in shock and awe litigation tactics or make a big splash with a civil penalty. I suppose part of that was due to the fact that we didn't have civil penalties, but it was also due to the top people at FERC telling us it was more important than anything to 'get it right.'

"Unfortunately, civil penalties and a change in top brass several years ago also changed the culture at FERC. It seems that instead of getting things right, staff now wants to punish, in dollars, certain types of market participants to show how tough FERC is as a regulator. In its efforts to root out the 0.05 percent of the industry looking to manipulate markets, FERC has alienated the 99.95 percent that just hope for understandable rules and transparent markets. Not wanting to get outsmarted, FERC data requests ask for more data and documents over more years than ever before. Meetings with staff have become

**...and, what we should do
(cont.):**

4. Enforce competitive solicitations by utilities for purchasing either thermal or renewable power.
5. Support choice among retail electricity customers.
6. Lobby for core/non-core split of retail customers.
7. Advocate against policies that limit, through bid mitigation, merchant returns on investment that are utility-like returns.

tense and adversarial where before they were somewhat collegial. More than a few of us have had the experience of meeting with FERC staff who are morally certain of their viewpoint and not interested in yours unless it provides them facts they can use for their draft complaint. Many people have expressed the feeling that FERC forms its opinion on a matter well before the investigation has really begun.

"FERC must now reap what it has sown. Among the cognoscenti it is viewed as one of the most dysfunctional regulators and nobody trusts them because the one thing that has become crystal clear is that the FERC itself does not know what its rules mean and they are just making it up as they go. Many market

participants avoid seeking guidance from FERC staffers for fear of getting ridiculous advice or, worse, becoming the target of an investigation. It has become common practice to poll multiple law firms for advice rather than to call the Hotline. Frankly, Gary, perhaps people are not sharing with you as much industry gossip as they used to because they fear that FERC could subpoena you to discover the source of information it

finds 'interesting' in the Burrito. I would bet that has resulted in more than a few unfinished emails.

“Thus, when the Gates brothers said ‘I'm as mad as hell, and I'm not going to take this anymore!’ it struck a chord in a lot of us who are hoping that these guys will reintroduce FERC to the concept of humility. FERC has become a bully and it is great to see these guys refusing to hand over their lunch money. Perhaps a FERC that realizes it is not always right is a better commission.”

Great letter on a sorry topic. I hope it makes an impact. I look forward to my FERC subpoena. I can always use the publicity.

Econ Prof at Cal State Fullerton, Robert Michaels, had this comment in response to Jack Ellis' rant last week: “Re the utopia Jack Ellis described in the last issue – It looks a lot like Texas. There they had vertical de-integration of generation and T&D at the outset, with the latter under cost-of-service regulation, nondiscrimination rules and nodal pricing. Distribution is competitive (In Houston there are about 30 companies with dozens of plans available to residential customers, and former utility affiliates are allowed to compete quite vigorously.) Generation investment continues to be adequate or better despite constant claims by owners that they can't make a living off spot markets. The reason as we now know is that less than 10 percent of the power in Texas moves through the balancing market, and its prices need not be those found in the confidential contracts that handle the remainder of wholesale dealing.

“Good insights, but then comes the problem. Seems that Jack wants generation and retailing under ‘rigorous oversight,’ by FERC for generation and the state for retailing. These oversights (?) already exist and are among the main reasons for the mess California is in. What exactly will FERC be able to do for generation that outdoes the Texas markets? Maybe a capacity market like in other areas, redundant at best or pernicious at worst? Texas does essentially nothing but impose minimal requirements on the finances of any retailer who wants to open up shop. What does the CPUC's record from 2001 to the present suggest about its abilities to rigorously oversee retail competition? If there's ever a choice between regulation and contracts, I'll almost always choose contracts. I wish I knew what exactly Jack finds so attractive about regulation.”

I gave Jack a chance to reply to Bob's letter. Jack wrote: “I'd rather do away with regulation altogether. The problem with getting rid of regulators is it requires market actors to exercise self-restraint. Maybe the folks in Texas are better at keeping their inner animal under control, or maybe Texans have a higher tolerance for foolishness than Californians do or perhaps disputes get settled differently in Texas than they do in California. I like the fact that things in ERCOT seem to work reasonably well whereas most of the other ‘organized’ markets are unduly complicated messes. When I used the term ‘rigorous oversight’, what I had in mind was regulators that made sure everyone followed the rules. I wasn't necessarily suggesting we need more rules and in fact, I'd argue that there are too many rules and too much complexity today. However I'm not prepared to advocate for no regulation. That just won't fly in most places because I don't believe customers will be comfortable with either having no rules or having rules but no enforcement mechanism.”

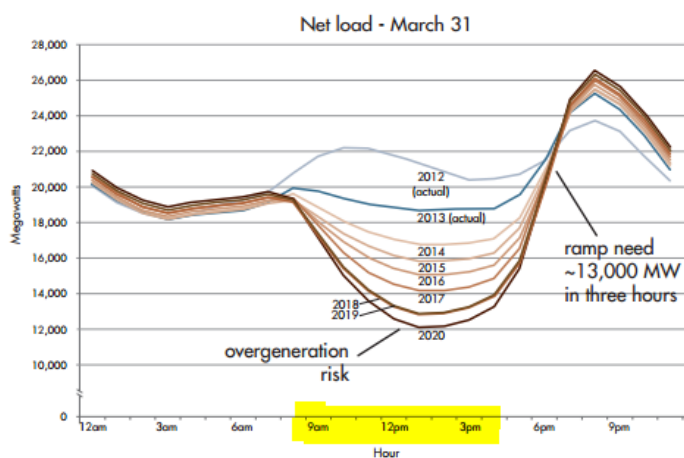
Then it's settled. Or is it?

David Francis helped me out with some inaccuracies I neglected last week in my generally true statements regarding units set to Pmin or Pmax and whether they can set the LMPs. He wrote: "Alan Meck asked how are the periods of over-generation related to the problem of high cost units parked at Pmin not setting the price? The answer to Alan's question depends on how the units got to Pmin: Either a) dispatched day ahead from 0 MW to Pmin 'outside the market', or b) Dec'd to Pmin in real time after a higher day-ahead award. If the reason is b), then that unit actually can set the price. And if units parked at Pmin have high costs, AND the CAISO markets are the premium market, AND export costs are high – to where would they economically export?"

"I have a couple of new topics regarding the afternoon ramp and a fat duck curve. Could the CAISO have a 4-hour ramping product, i.e. the offer is structured in MW and \$/MWh? A generator bids, say, 'Ramp 100 MW ratably over the 4-hour period for \$50/MWh.' The CAISO simply declares transparently to the market the hours it needs ramping, sellers make their offers, and the best price wins.

"And the dispatch day could/should change. If the CAISO is not going to a multi-day dispatch, then align the trade day to keep all the lowest load hours together, like the current off-peak markets. I highlighted what might become the 'new' off-peak. In my mind, if there is a 6-8 hour contiguous block of expected pricing lower than the cost of the combined cycles, then that is when they would cycle. The CAISO could let the CCGTs meet minimum down times between runs, and take unnecessary minimum load MWs offline via price signal."

Figure 2: The duck curve shows steep ramping needs and overgeneration risk



I think Dave is pointing in a direction that we will soon arrive at, inevitably.

Alan Meck provided some insight into the recent ruling of the U.S. District Court (Minnesota) regarding a suit brought by several MISO market participants and the State of North Dakota against the State of Minnesota. "Two weeks ago you talked about North Dakota v. Swanson where the District Court overturned Minnesota's anti-coal regulation and pondered the applicability in California's AB 32. I skimmed the court's decision and I don't think there's likely to be much crossover because the decision was based on the fact that sections 2 and 3 of the law in question explicitly discriminated against out-of-state coal, and *only* out-of-state coal. That's a pretty easy call. I'm not up on the specifics of AB 32, but a state can generally avoid Minnesota's pitfall by applying restrictions on out-of-state commerce equally to in-state commerce. For example, Cap-and-Trade passes this

basic test because, while it restricts out-of-state generation, it applies equally to in-state generation, and hence it's not discriminatory.”

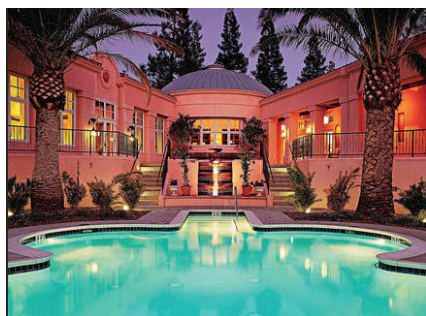
Finally, Bob Hoffman had this nostalgic note based on my recent visit to the Big Apple: “Thanks for sharing your experience on your recent NYC trip. I remember seeing the Fantasticks during a 6th Grade class trip when I was growing up on Long Island. Jerry Orbach’s (famous for his role on Law and Order) first major role was in the Fantasticks. The song ‘Try to Remember’ is from the Fantasticks and I remember seeing the Twin Towers then under construction as the school bus headed to China Town for lunch before seeing the show. I also remember it was a great show.”

That’s our job ... to bring back the fond memories. Now get to work.

>>> Odds & Ends (_!_)

The 2014 WPTF Summer General Meeting will be in Sonoma, California, on June 26 and 27. Our hotel, the Fairmont Sonoma Mission Inn & Spa, has a block of rooms available under the WPTF group rate. The room rate is \$319/night plus tax. To make a room reservation, the phone number for the hotel is (866) 939-9000. Mention you are attending the Western Power Trading Forum conference.

If you made a hotel reservation, then also RSVP to Rhonda Cherry at rhonda@eventech.com for your attendance at the meeting. Regardless of the status of your hotel reservation, in



order for us to get an accurate head count, you must email Rhonda or call her at (416) 556-8382. The WPTF website registration is operational if you prefer to register that way.

Hosted Spa Day is being sponsored by the following organizations: Resero Consulting, Foothill Services Nevada, Aciem, and Advantage Consulting! Members and their spouses have their choice of either a 60-minute relaxation massage or a 60-minute deep cleansing facial anytime between 7:30 am – 4:00 pm on June 26th. Treatment and gratuity are covered. Appointment times fill quickly, so contact Rhonda immediately with your request. Please note – slots are open first to members and member spouses. If any slots remain by June 19, we will notify you and nonmembers may request those slots. If you wish to make additional appointments, you may contact the spa directly at (707) 939-2419. Mention WPTF for a 10% discount.

Meeting fees—whereas WPTF members may attend for free, non-members, non-member spouses, and consultants to WPTF members must pay a conference fee of \$360 per person. Member spouses/partners must pay a spousal rate of \$180. Government employees are afforded a special government rate of \$68.

Agenda

Thursday, June 26

9:00 a.m.

Golf: Sonoma Golf Club, on site at Fairmont Sonoma Mission Inn (\$185 per player plus gratuity)

7:30 am – 4:00 pm Spa Day – Complimentary to member and member spouses sponsored by [Resero Corp.](#), [Foothill Services Nevada](#), [Advantage Consulting](#), and [Aciem Consulting](#)

6:00 p.m. Reception and dinner at Fairmont Sonoma Mission Inn sponsored by [Exelon](#), [Calpine](#), [NRG](#), and [Dynegy](#).
Kent Wheatland Award presentation to [Katie Kaplan](#)
Keynote Speaker: [FERC Commissioner John Norris](#)

10:00 p.m. After-hours WPTF reception

Friday, June 27

9:00 a.m. Introductory remarks

9:10 a.m. Keynote Speaker: [CPUC Commissioner Michael Picker \(invited\)](#)

9:45 a.m. Round robin discussion

11:30 a.m. What Goes On at the Legislative Analyst's Office? – [Tiffany Roberts](#), [Environmental Quality Policy Consultant -Senate Republican Caucus](#)

12:00 p.m. Luncheon and Adjourn

This was a brief but weighty Burrito. It's the kind that packs on the pounds. Vitaly Lee told me I reprinted the same story twice within a month ... the one about the Priest and the hole-in-one golf game. I just can't keep track of stuff anymore. Now here are your stories:



Romantic Text

An elderly couple had just learned how to send text messages on their cell phones. The wife was a romantic type and the husband was more of a no-nonsense guy.

One afternoon the wife went out to meet a friend for coffee. She decided to send her husband a romantic text message and she wrote:

"If you are sleeping, send me your dreams.

If you are laughing, send me your smile.

If you are eating, send me a bite.

If you are drinking, send me a sip.

If you are crying, send me your tears.

I love you."

The husband texted back to her: "I'm on the toilet. Please advise."

I didn't see that punch line coming. Here's another:

Ten Jokes That Only Intellectuals Will Understand

1. It's hard to explain puns to kleptomaniacs because they always take things literally.
 2. What do you get when you cross a joke with a rhetorical question?
 3. Three logicians walk in a bar. The bartender asks, "Do all of you want a drink?"
The first logician says, "I don't know."
The second logician says, "I don't know."
The third logician says, "Yes!"
 4. Einstein, Newton and Pascal are playing hide and go seek. It's Einstein's turn to count so he covers his eyes and starts counting to ten. Pascal runs off and hides. Newton draws a one meter by one meter square on the ground in front of Einstein then stands in the middle of it. Einstein reaches ten and uncovers his eyes. He sees Newton immediately and exclaims "Newton! I found you! You're it!" Newton smiles and says "You didn't find me, you found a Newton over a square meter. You found Pascal!!"
 5. A mathematician and an engineer agreed to take part in an experiment. They were both placed in a room and at the other end was a beautiful naked woman on a bed. The experimenter said every 30 seconds they would be allowed to travel half the distance between themselves and the woman. The mathematician said, "This is pointless" and stormed off. The engineer agreed to go ahead with the experiment anyway. The mathematician exclaimed on his way out "don't you see, you'll never actually reach her?" To which the engineer replied, "So what? Pretty soon I'll be close enough for all practical purposes."
 6. A Roman walks into a bar and asks for a martinus. "You mean a martini?" the bartender asks. The Roman replies, "If I wanted a double, I would have asked for it!"
 7. Another Roman walks into a bar, hold up two fingers, and says, "Five beers, please."
 8. A logician's wife is having a baby. The doctor immediately hands the newborn to the dad. His wife asks impatiently: "So, is it a boy or a girl?" The logician replies: "yes."
 9. Jean-Paul Sartre is sitting at a French café, revising his draft of Being and Nothingness. He says to the waitress, "I'd like a cup of coffee, please, with no cream." The waitress replies, "I'm sorry, Monsieur, but we're out of cream. How about with no milk?"
 10. Entropy isn't what it used to be.
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Have a great weekend, and cool off a bit.

gba